

OBJEKTIVNI I SUBJEKTIVNI POKAZATELJI U ISTRAŽIVANJU KONCEPTA KVALITETE ŽIVOTA

OBJECTIVE AND SUBJECTIVE INDICATORS IN THE RESEARCH OF THE QUALITY OF LIFE CONCEPT

LANA SLAVUJ¹

¹Geografski odsjek, PMF, Sveučilište u Zagrebu, Zagreb / *Department of Geography,
Faculty of Science, University of Zagreb, Zagreb*

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U radu se raspravlja o objektivnim i subjektivnim mjerama (objektivni i subjektivni pokazatelji) proučavanja koncepta kvalitete života. Budući da je riječ o različitim mjerama sa svojim posebnostima, većim dijelom rada diskutira se zasebno o njihovom razvoju te metodološkim specifičnostima. Na kraju rada ističe se vrijednost njihove zajedničke primjene u istraživanjima. Naime obje vrste mjera imaju svoje prednosti i nedostatke, ali su konceptualno komplementarne. Kvaliteta života je kompleksan i slojevit konstrukt koji zahtijeva složene pristupe proučavanja. Istraživanja su potvrdila da zajednička primjena obje vrste pokazatelja znatno obogaćuje poznavanje kvalitete života stanovnika nekoga geografskog područja.

Ključne riječi: kvaliteta života, načini mjerenja, objektivni pokazatelji, subjektivni pokazatelji

In this paper the objective and subjective measures (objective and subjective indicators) of the concept of quality of life research have been discussed. Since the measures are specific, the most part of the paper discusses separately their development and their methodological specifics. At the end of the paper the value of their joint use in the research has been emphasised. Both kinds of measures have their advantages and disadvantages, but in conceptual sense they are complementary. The quality of life is a complicated and multileveled construct which requires complex research approaches. Research has proved that parallel use of both kinds of indicators significantly improves comprehension of the quality of life of inhabitants of a certain geographical area.

Key words: quality of life, measurement methods, objective indicators, subjective indicators

Uvod

Kvaliteta života iznimno je složen koncept kojim se bave različite znanstvene discipline. S obzirom na slojevitost i brojnost perspektiva kroz koje se o pojmu promišlja, gotovo ga je nemoguće jednoznačno definirati. Jedno od ključnih pitanja jest na koje je načine moguće istraživati ovaj višedimenzionalan konstrukt. Geografi se, uz stručnjake drugih disciplina koji se bave ovom problematikom, susreću s pitanjem odabira primjerenih načina proučavanja koncepta.

U istraživanjima kvalitete života primjenjuju se društveni pokazatelji. U literaturi se često govori o socijalnim pokazateljima (naziv je prvi skovao američki istraživač Raymond Bauer, 1966.) pri

Introduction

Quality of life is an exceptionally complex concept which has been the object of interest of different scientific disciplines. Because of the multilevelness and number of perspectives which consider the issue, it is almost impossible to define it universally. One of the key questions raised considers the possible ways of research of this multidimensional construct. Geographers, as well as experts of other disciplines concerned with this matter, are preoccupied with the question of an adequate selection of research methods of the concept.

In the quality of life research social indicators are applied. Literature often mentions social indicators

čemu neki autori pod konceptom socijalnih pokazatelja jasno razlikuju objektivne i subjektivne pokazatelje (ANDREWS, 1974.; PACIONE, 1982a), dok drugi naziv socijalni pokazatelji poistovjećuju samo s objektivnim pokazateljima, a posebno izdvajaju mjere subjektivnog blagostanja, odnosno subjektivne pokazatelje (DIENER, SUH, 1997.).

Obje vrste pokazatelja smatraju se jednako vrijednim mjerama u proučavanju koncepta. No objektivni pokazatelji, kao i subjektivni pokazatelji imaju svoje prednosti, ali i nedostatke s kojima istraživači trebaju biti upoznati. Naime na istraživaču je da ovisno o ciljevima svoje studije, prostornom obuhvatu i općenito mogućnostima koje ima na raspolaganju, donese odluku koju će vrstu indikatora koristiti. Također, postoji mogućnost kombinacije obje vrste mjera, što pojedine studije i primjenjuju radi boljšeg razumijevanja koncepta kvalitete života.

U ovom radu raspravlja se o primjeni objektivnih i subjektivnih pokazatelja u proučavanju koncepta kvalitete života. Diskutira se o njihovom razvoju, prednostima i nedostacima te o mogućnosti njihove zajedničke primjene u istraživanju ovoga kompleksnog pojma.

Objektivni pokazatelji

Bruto domaći proizvod i slične ekonomske mjere dugo su vremena smatrane glavnim pokazateljima blagostanja neke države. No mjere temeljene na novcu i nacionalnim prihodima pružaju informacije o materijalnom blagostanju, ali ne govore mnogo o drugim ključnim dimenzijama društva (poput obrazovanja, zdravlja, prirodnog okoliša, ljudskih prava). Porast materijalnog blagostanja neke države ne mora dovesti i do boljšeg standarda života za sve njezine građane. Drugim riječima, ekonomski pokazatelji mogu poslužiti za donošenje pretpostavki o blagostanju, ali nikako ne mogu biti jedini pokazatelji. *Dobar život* podrazumijeva i ovisi o većem broju varijabli osim dohotka i raspoloživih financija (HENDERSON I DR., 2000.; HASAN, 2007.). Brojna istraživanja provedena na temu (EASTERLIN, 1974.; DUNCAN, 1975.; DIENER, OISHI, 2000.) od 1970-ih pokazala su da povećanje standarda života u materijalnom smislu ne dovodi nužno do povećanja subjektivnog blagostanja. Osobna primanja manje koreliraju sa zadovoljstvom života u bogatim zemljama, a više u siromašnijim zemljama (VEENHOVEN, 1997.). Stoga su znanstvenici zaključili da su,

(American researcher Raymond Bauer came up with the term in 1966), where some of the authors, under the concept of social indicators, make clear distinction between objective and subjective indicators (ANDREWS, 1974; PACIONE, 1982a), while others identify the term social indicators only with objective indicators, and separate the measures of subjective well-being, i.e. subjective indicators (DIENER, SUH, 1997).

Both kinds of indicators are considered to be equally valid measures in research of the concept. Both sets of indicators have their own advantages and disadvantages which researchers have to take into consideration. In other words, a researcher should, depending on the aims of a study, area coverage and general possibilities, make a decision which kind of indicators to apply. Also, there is the possibility of combining the measures, which has been applied in some of the studies in order to understand better the quality of life concept.

In this paper, implementation of objective and subjective indicators in the research of the quality of life concept has been discussed. The discussion covers their development, advantages and disadvantages, as well as possibilities of their joint application in the research of this complex concept.

Objective indicators

For a long time, gross national product and similar economic measures were considered to be the main indicators of well-being of a certain country. However, the measures based on money and national income provide information on material well-being, but do not indicate other key dimensions of a society (such as education, health, natural environment, human rights). Improvement of material well-being of a certain country does not necessarily lead to a better standard of living for all of its citizens. In other words, economic indicators can be useful in making presumptions on well-being, but cannot be the only indicators. *Good life* implies and depends on a greater number of variables, not only on income and available finances (HENDERSON ET AL., 2000; HASAN, 2007). Numerous research on the subject (EASTERLIN, 1974; DUNCAN, 1975; DIENER, OISHI, 2000) since 1970s has shown that the improvement of the living standard in material sense does not necessarily lead to improvement of subjective well-being. Personal income is less correlated with life satisfaction in rich countries, and more in poorer countries (VEENHOVEN, 1997).

nakon dostizanja određene razine, dohodak i drugi objektivni pokazatelji slabo povezani sa subjektivnim blagostanjem (INGLEHART, 2000.; GASPER, 2007.). Kada su zadovoljene osnovne materijalne potrebe, druge životne domene postaju mnogo važnije za subjektivno iskustvo kvalitete života.

Spoznaja da kvaliteta života nije jednostavna funkcija materijalnog bogatstva dovela je do potrebe razvoja novih kvantitativnih pokazatelja koji će moći bolje obuhvatiti koncept dobrog života. U tom smislu statistički pokazatelji morali su osim ekonomskih aspekata uključivati i socijalne, okolišne, osobne i političke dimenzije. Sustavno prikupljanje pokazatelja započelo je 1960-ih godina u Sjedinjenim Američkim Državama kada je *Ured za zdravlje, obrazovanje i blagostanje* objavio ključan dokument, *Towards a Social Report*, koji je bio prvi pravi pokušaj stvaranja socijalnog ekvivalenta tradicionalnom ekonomskom izvještaju. Dokument je predstavljao opsežnu studiju o kvaliteti života američke nacije obuhvaćajući područja: zdravlje i bolesti, socijalna mobilnost, karakteristike fizičkog okoliša (zagađenje, stanovanje), dohodak i siromaštvo, javni red i sigurnost, obrazovanje, znanje i umjetnosti, politička participacija (U.S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE, 1969.). Sustavno prikupljanje pokazatelja ubrzo se proširilo izvan SAD-a te su socijalne izvještaje počele objavljivati internacionalne organizacije poput *Organizacije za ekonomsku suradnju i razvoj* (OECD), *Socijalnog i ekonomskog vijeća Ujedinjenih Naroda* ili *Svjetske banke*, a time su se bavili i mnogi znanstvenici (CLARKE, WILSON, 1994.). U većini slučajeva takvi su izvještaji bili namijenjeni poboljšanju sustava informiranja za planiranje i donošenje odluka. U Velikoj Britaniji prva statistička publikacija koja je za cilj imala formuliranje osjetljivijih mjera socijalnih uvjeta, *Social Trends*, objavljena je 1970. (SMITH, 1973a). U isto vrijeme slične publikacije počele su izlaziti i u drugim zemljama Europe (Francuskoj, Nizozemskoj, Njemačkoj). Godišnji izvještaji sa sličnom nakanom počinju od 1971. izlaziti i kod nas (*Statistički godišnjak SR Hrvatske* koji 1990-ih mijenja ime u *Statistički ljetopis Republike Hrvatske*) (PODGORELEC, 2008.).

Te prve studije arhivirale su velik broj statističkih podataka o blagostanju društva, no većinom su bile napravljene na razini država, što su im mnogi analitičari zamjerali. Naime nisu ponudile nikakve zaključke o prostornim uzorcima socijalnih

Therefore, scientists have concluded that, after reaching a certain level, income and other objective indicators are weakly linked to subjective well-being (INGLEHART, 2000; GASPER, 2007). When the basic needs have been fulfilled, other domains of life become much more important for the subjective quality of life experience.

Understanding that quality of life is not a simple function of material well-being led to a development of new quantitative indicators which would describe better the concept of good life. In this sense, statistical indicators had to include social, environmental, personal and political dimensions, besides the economical ones. Systematic collection of indicators started in the 1960s in the United States of America when the Department of Health, Education and Welfare issued the key document, *Towards a Social Report*, which was the first real attempt to create a social equivalent to traditional economic reports. The document represented an extensive study of the quality of life of the American nation, covering very different domains: health and illness, social mobility, physical environment, income and poverty, public order and safety, learning, science and art, participation and alienation (US DEPARTMENT OF HEALTH, EDUCATION AND WELFARE, 1969). The systematic collection of indicators very soon spread out of the USA, and many international organisations (such as Organisation for Economic Co-Operation and Development (OECD), Social and Economic Department of the United Nations, the World Bank) started issuing social reports, and the subject also got the attention of many scientists (CLARKE, WILSON, 1994). In most cases, such reports were aimed at improving information systems for planning and decision making. In Great Britain, the first statistical publication which formulated the sensitive measures of social conditions, *Social Trends*, was published in 1970 (SMITH, 1973a). At the same time, similar publications appeared in other European countries (France, the Netherlands, Germany). Annual reports with similar aims have been also published in our country since 1971 (Statistical Annual of the SR of Croatia, in 1990 changed its name into Statistical Chronicle of the Republic of Croatia) (POGORELEC, 2008).

Those first studies collected a large number of statistical figures on society's welfare, but most of them were conducted on the state level, which was criticized by many analysts. In other words, they did not provide any conclusions about spatial patterns of social conditions (SMITH, 1973a). The reports contained different quality of life

obilježja (SMITH, 1973a). Izvještaji su sadržavali različite indikatore kvalitete života mjerene u određenom vremenskom razdoblju, no nedostajala im je dimenzija prostora kako bi postali zaista reprezentativni pokazatelji stanja i upotrebljivi temelj za planiranje politika i programa razvoja. Ljudski životi odvijaju se na lokalnoj razini te se većinom u tom okviru događaju sva životna iskustva. Prema tome, nacionalni pokazatelji samo su skupni odraz uvjeta te kao takvi lako mogu prikriti određene probleme koji postoje na lokalnoj razini (KNOX, 1975.). Upravo su u ovom segmentu geografi dali značajan doprinos u razvoju proučavanja kvalitete života. Naime navedeni nedostatak ranih istraživanja koja su primjenjivala indikatore, bio je jedan od poticaja za nastanak prvih geografskih radova o kvaliteti života (LEWIS, 1968.; SMITH, 1973a, 1973b, 1975.; KNOX, 1974a, 1974b, 1975., 1976a, 1976b, 1978.; KNOX, MACLARAN, 1978.; KUZ, 1978.; HELBURN, 1982.; PACIONE, 1982a; 1982b, 1984., 1986.; CUTTER, 1985.). Ti su radovi, ujedno, bili važan korak naprijed prema razvoju socijalno odgovorne humane geografije te su potaknuli uključivanje prostorne dimenzije u, ne isključivo geografske, analize. Geografi su bili među prvima, što je i razumljivo, koji su zagovarali potrebu uvođenja prostorne dimenzije, odnosno važnost proučavanja na različitim geografskim razinama. Ipak, taj razvoj nije bio samo pod utjecajem geografske perspektive proučavanja stvarnosti, nego je nastao kao nužan i logičan slijed razvoja aplikativno orijentiranog sustava socijalnog izvještavanja (KNOX, 1975.).

Tijekom 1980-ih došlo je do smanjenja uporabe pokazatelja u istraživanjima, većinom zbog brojnih konceptualnih i metodoloških problema koje prate te objektivne mjere, a o kojima će kasnije u radu biti detaljnije riječ. Dodatni razlog bila je sklonost vlada i organizacija da se oslanjaju na ekonomske pokazatelje pri izvještavanju o socijalnom blagostanju. No u 1990-ima se ponovno pojačalo zanimanje za ovo polje istraživanja (BOELHOUWER, 2002.), a najutjecajnija ideja koja se pojavila jest značaj održivog razvoja lokalnih zajednica i važnost razumijevanja stanja stvari i na lokalnim razinama. Upravo zbog usmjerenosti na lokalnu razinu, o novom valu istraživanja govori kao o *Pokretu indikatora zajednice* (eng. *Community indicators movemet*) (WONG, 2006.). Ključni događaj koji je 1990-ih doveo do toga novog zanimanja za pokazateljima i potaknuo njihov novi, snažniji razvoj, jest donošenje plana *Agenda 21*. Plan je usvojen 1992. na konferenciji Ujedinjenih naroda u Rio de Janeiru. Također, važni su bili zaključci

indicators, measured during a certain period of time, but they missed the dimension of space to actually become a representative and useful base for planning policies and development programs. People live locally and experience life within their own locality. National indicators are aggregates of these conditions and as such may mask important problems at the local level (KNOX, 1975). This is the segment to which geographers gave a significant contribution in the development of the quality of life research. In other words, the mentioned disadvantage of early studies that applied the indicators was one of the impulses for the development of first geographical studies on quality of life (LEWIS, 1968; SMITH, 1973a, 1973b, 1975; KNOX, 1974a, 1974b, 1975, 1976a, 1976b, 1978; KNOX, MACLARAN, 1978; KUZ, 1978; HELBURN, 1982; PACIONE, 1982a; 1982b, 1984, 1986; CUTTER, 1985). These studies were, at the same time, an important step forward in the development of a socially responsible human geography, and they stimulated the inclusion of a spatial dimension in not exclusively geographic analyses. Geographers were, of course, among the first who argued for a spatial dimension, and for the importance of conducting a research on different geographical levels. However, this development was not only influenced by the geographical perspective, but was a necessary and logical extension of any applicable social reporting system (KNOX, 1975).

During the 1980s, the use of indicators in research decreased, mainly because of conceptual and methodological problems with objective measures (which will be discussed later in the paper). An additional reason was the tendency of governments and organisations to rely on economic indicators in social welfare reports. However, in the 1990s, the interest for this field of research intensified (BOELHOUWER, 2002). The most influential idea that appeared was the importance of the sustainable development of local communities and of comprehension of situation on local levels. Because of the orientation towards the local level, a new wave of research became known as *Community Indicators Movement* (WONG, 2006). The key event of the 1990s, which provoked this new interest for indicators and stimulated their new, stronger development is the enactment of the Agenda 21, adopted in 1992 at the United Nations Conference in Rio de Janeiro. Most important conclusions were also enacted in Istanbul, at the Conference Habitat II in 1996. In the Chapter 40 of the Agenda 21, an appeal was sent to international,

doneseni u Istanbulu na konferenciji Habitat II, 1996. U 40. poglavlju *Agende 21* pozivaju se internacionalne, vladine i nevladine organizacije da se pridruže razvoju indikatora koji će osigurati temelje za informirano donošenje odluka na svim prostornim razinama, od nacionalnih do lokalnih (UNITED NATIONS INDICATORS OF SUSTAINABLE DEVELOPMENT, 2007.).

Da su danas indikatori postali neizostavan instrument prikupljanja znanja o stanju u društvu i dio procesa planiranja, svjedoče i mnogi drugi veliki projekti poput onih koje provode Europska komisija (*Strategija održivog razvoja Europske Unije*) ili Svjetska banka (godišnje objavljuje *World Development Report* te je pokrenula program *Global City Indicators*). Bilo bi moguće nabrojiti mnogo različitih programa, institucija i organizacija, lokalnih zajednice i pojedinca koji danas provode istraživanja kvalitete života temeljena na pokazateljima. Naime od 1990-ih gotovo da se može govoriti o *eksploziji* istraživanja kvalitete života uz pomoć indikatora na svim prostornim razinama. No velik problem istraživanja ostao je, kao i u počecima razvoja pokazatelja, pitanje neujednačenost metodologije, što gotovo nemogućim čini smislene prostorne usporedbe među područjima. Pojedini internacionalni projekti (npr. *United Nations Indicators of Sustainable Development; Global City Indicators*) nastoje ispraviti ovakvu konfuznu situaciju i razviti jedinstvene pokazatelje koji bi bili u globalnoj upotrebi ili barem u pojedinim velikim projektima. Kako zorno pokazuje primjer iz projekta *Global City Indicators* koji je pokrenula Svjetska banka s partnerima, od devet pilot gradova koji prikupljaju više od 1000 različitih indikatora, samo su tri od 1000 indikatora bila zajednička svim gradovima (BHADA, HOORNWEG, 2009.). Takav nedostatak standardizacije ograničavajuće djeluje na uspoređivanje rezultata istraživanja i praćenje trendova u različitim geografskim područjima.

Prednosti i nedostaci objektivnih pokazatelja kao mjera za istraživanje koncepta kvalitete života

Objektivni pokazatelji smatraju se tzv. *čvrstim* indikatorima koji se mogu relativno lako definirati i precizno kvantificirati bez upliva subjektivnih procjena. Posljedica toga je mogućnost da se pouzdano vrše usporedbe skupa indikatora među državama, regijama i vremenskim razdobljima. S obzirom na to da obuhvaćaju velik broj pokazatelja iz različitih socijalnih područja, smatra se da

governmental and nongovernmental organisations to support the development of indicators which would insure the base for an informed decision making on all spatial levels, from national to local (UNITED NATION'S INDICATORS OF SUSTAINABLE DEVELOPMENT, 2007).

Today, indicators have become essential instruments for gathering information about conditions in a society and an integral part of the planning process. This has been proved in many large projects, such as those carried out by the European Commission (*Strategy for Sustainable Development of the European Union*) or the World Bank (annual *World Development Report, Global City Indicators programme*). It would be possible to list many different programs, institutions and organisations, local communities and individuals that conduct research on the quality of life based on indicators. Since 1990s, it is almost possible to talk about an *explosion* of the quality of life research using indicators on all spatial levels. But the lack of standardized methodology that would enable the spatial comparison among areas still remains an unresolved issue today. Single international projects (for example *United Nations Indicators of Sustainable Development; Global City Indicators*) make an effort to correct such a confused situation and develop a standardized set of indicators for general purpose, or, at least, for single large projects. A vivid demonstration of this is the *Global City Indicators* project initiated by the World Bank with its partners, in which nine pilot cities collected more than 1,000 different indicators, with just 3 out of 1,000 common to all of them (BHADA, HOORNWEG, 2009). Such a lack of standardisation limits the comparison of research results and monitoring trends in different geographical areas.

Advantages and disadvantages of objective indicators as measures for research of the quality of life concept

Objective indicators are considered to be, so-called, *hard* measures which are relatively easy to define and precisely quantify without the influence of subjective evaluation. As a consequence, it is possible to make reliable comparison of sets of indicators among states, regions and periods. Since they include a large number of indicators from different social domains, they are considered to reflect successfully certain aspects of life quality which cannot be adequately measured

uspješno odražavaju određene aspekte kvalitete života koji se ne mogu adekvatno izmjeriti subjektivnim procjenama ili preko ekonomskih pokazatelja (DIENER, SUH, 1997.).

No istraživanja koja primjenjuju objektivne pokazatelje susreću se i s nekim metodološkim nedostacima. Smith (1973a), Knox (1975.), Harvey (1973.) i Wong (2006.) navode problem generalizacije prostornih podataka, odnosno problem *ekološke pogreške* (eng. *ecological fallacy*) koja se može pojaviti bez obzira na veličinu analizirane prostorne jedinice. Koliko god da je mala prostorna jedinica promatranja postoji mogućnost da će se uopćavanjem ili uprosječenjem rezultata izgubiti moguće razlike unutar prostornog entiteta. Primjerice, u određenim gradskim područjima pogođenima deprivacijom i siromaštvom mogu živjeti i neke socijalne skupine boljeg materijalnog statusa. Ipak, što je prostorna jedinica veća, to je veća i mogućnost pogreške ovoga tipa. Za manje prostorne cjeline, poput gradskih susjedstva, ispravnije je pretpostaviti da postoji određen stupanj homogenosti u kvaliteti života populacije nego za čitavu regiju ili državu. Ovaj argument odnosi se jednako i na subjektivne indikatore.

Nadalje, objektivni pokazatelji često su obilježeni problemima nastalim već prilikom njihova prikupljanja. Primjerice, podatke o vlastitim primanjima ljudi katkad namjerno prikažu većima nego što uistinu jesu (DAS, 2008.). Drugim riječima, objektivni pokazatelji podložni su subjektivnim odlukama – od onih koji prikupljaju te podatke do onih koji ih iznose.

Objektivnim pokazateljima katkad se mjere složeni koncepti poput zdravlja ili sigurnosti i to preko surogatnih mjera (npr. očekivana životna dob, stopa kriminaliteta). Te surogatne mjere češće se izabiru na temelju dostupnosti statističkih podataka ili lakoće mjerenja nego na teoretskom promišljanju. Primjerice, statistika o broju policajaca zapravo nije indikator, jer porast njihova broja ne pridonosi nužno i povećanju ljudskog blagostanja ni smanjivanju kriminala (u ovom slučaju više bi odgovarao podatak o npr. troškovima društva zbog povećane stope kriminaliteta u određenom području) (SMITH, 1973a). Nedostupnost ili nepostojanje podataka često je prisutan i ograničavajući faktor u istraživanjima kvalitete života objektivnim pokazateljima. Zbog takvih nedostataka, studijama se katkad ne mjeri ono što je inicijalno bilo namjeravano, nego ono što je dostupno u službenim statističkim publikacijama

by subjective evaluation or through economic indicators (DIENER, SUH, 1997).

However, research which applies objective indicators faces some methodological deficiencies. Smith (1973a), Knox (1975), Harvey (1973) and Wong (2006) emphasize the problem of the generalisation of spatial data, or *ecological fallacy problem*, which can occur regardless of the size of the analyzed spatial unit. Regardless of how small the observed spatial unit is, there is a possibility that, by generalisation or levelling of the results, it will lose the possible differences existing inside its spatial entity. For example, in city areas affected by deprivation and poverty, there can also live some social groups of better material status. The larger a spatial unit is the higher is the possibility of error of this type. For smaller spatial units, such as city neighbourhoods, it is more accurate to presume that there is a certain level of homogeneousness in the quality of life of the population than for entire regions or states. This argument applies to subjective indicators as well.

Furthermore, objective indicators are often marked by problems which emerge during their collection. For example, people sometimes deliberately present higher personal incomes than they actually are (DAS, 2008). In other words, objective indicators depend upon subjective decisions – of those who collect the data, as well as of those who provide the data.

Objective indicators sometimes measure complex concepts, such as health or safety, through surrogate measures (for example life expectancy or crime rate). Surrogate measures are more often chosen on the account of the accessibility of statistic data or because they are easy to measure, than on theoretical consideration. For example, statistics on the number of policemen is not really an indicator, because its increase does not necessarily contribute to people's welfare, nor to the decrease in crime rates (in this case, statistics on extra expenses due to increased crime rate in a certain area would provide better information) (SMITH, 1973a). Inaccessibility or lack of data is often present and limiting factor in the quality of life research by applying objective indicators. Because of such deficiencies, studies sometimes do not measure what was initially intended, but what was available in official publications or documents of certain services (for example, National Health Service, Police Office).

There is also the question of ambivalent significance of some indicators. There is a very

ili u dokumentima pojedinih služba (npr. Zavod za javno zdravstvo, Policijska uprava).

Postavlja se i pitanje ambivalentnog značenja pojedinih pokazatelja. Naime vrlo je ograničen broj objektivnih indikatora za koje se može sa sigurnošću tvrditi da se mogu jasno kategorizirati *dobrim* ili *lošim*, *visokim* ili *niskim* u smislu njihova utjecaja na koncept kvalitete života. Primjerice, iako se posjedovanje automobila općenito smatra indikativnim za bolje stojeće slojeve društva, isto bi tako mogao upućivati na nedovoljno razvijen sustav javnog prijevoza, što bi siromašniji stanovnike udaljenijih prigradskih dijelova moglo prisiliti da velik dio svojih primanja troše na kupnju i održavanje automobila (KNOX, 1978.). Osim toga, velik broj automobila može upućivati na povećano zagađenje zraka (GEHRMANN, 1978.).

Nemogućnost ili poteškoće u uspoređivanju rezultata raznih istraživanja sljedeći su velik nedostatak objektivnih pokazatelja. Ovaj problem, osim zbog specifičnosti svakoga proučavanog prostora i opremljenosti statističkih baza, proizlazi i iz kompleksnosti pojma kvalitete života koji različiti autori i različite discipline drugačije konceptualiziraju. Iako uglavnom mjere iste ili slične stvari, vrlo je teško naći dvije studije koje se koriste potpuno identičnim skupom pokazatelja. Na ovaj nedostatak nadovezuje se problem izbora pokazatelja (CLARKE, WILSON, 1994.). Odabir pokazatelja uglavnom ovisi o ciljevima i prostoru istraživanja, no s obzirom na to da nema striktno propisanih pravila koje indikatore kada koristiti, to je pitanje subjektivna odluka istraživača. Leitmann (1999.) navodi nekoliko različitih radova koji su na isto pitanje o tome koji su *najbolji* američki gradovi za živjeti dobili bitno drugačije odgovore. Te razlike proizašle su iz različitog skupa pokazatelja koje su tijekom istraživanja primijenili autori, svaki prema glavnom interesu svoje struke. Tako su prema ekonomistima, gradovi Pueblo, Norfolk i Denver visoko rangirani; prema ekolozima (okolišnim pitanjima) najbolji su San Antonio, Austin, Honolulu; a prema autorima koji istražuju razinu kulturnih i političkih sloboda na visokom su mjestu Portland, Durham, Madison. Dakle, odluke koje objektivne mjere primijeniti uvelike ovise o onome tko kreira istraživanje.

Diener i Suh (1997.) naglašavaju još jedan važan nedostatak objektivnih mjera. Problem se odnosi na pitanje vrednovanja indikatora, o čemu također ne postoji konsenzus s obzirom na to da različiti ljudi različito vrednuju iste stvari. Preferencije o najvažnijim životnim područjima

limited number of indicators which can be categorized with certainty as *good* or *bad*, *high* or *low* in the sense of their influence on the quality of life. For example, although owning a car is generally indicative of wealthier social groups, it could also be an indicator of an underdeveloped system of public transport that could force less fortunate inhabitants in remoter suburban areas to spend a large part of their income on buying and maintaining a car (KNOX, 1978). Apart from that, a large number of cars can indicate air pollution (GEHRMANN, 1978).

Impossibility or difficulties in comparing the results of different studies is the next considerable disadvantage of objective indicators. This problem, apart from the specifics of each research area and statistic base, is the result of the complexity of the term quality of life, which different authors and different disciplines conceptualize differently. Although the studies mostly measure the same or similar things, it is hard to find two studies that use exactly the same set of indicators. Connected to this is the problem of the choice of indicators (CLARKE, WILSON, 1994). The choice of indicators mostly depends on the goals and the area of research. Since there are no strictly prescribed rules which indicators are to be used and when, that question becomes the subjective decision of the researcher. Leitmann (1999) mentions several different studies which provide significantly different answers to the same question: Which are the best American cities to live in. The differences are the result of different set of indicators applied by the research authors, each according to the main interest of their profession. So, according to economists, the cities of Pueblo, Norfolk and Denver are highly ranked; according to ecologists (environmental matters), the best are San Antonio, Austin, Honolulu; according to the authors who research the level of cultural and political freedom Portland, Durham and Madison are highly ranked. So, the decision which of the objective measures to apply highly depends on the researcher.

Diener and Suh (1997) emphasize another important disadvantage of objective measures. The problem relates to indicator valuation, for which consensus also does not exist since different people value different things. Preferences of the most important life domains vary in the intensity among different groups and communities. A person's current values are determined by his/her personality on one side, and cultural and social context on the other. So, it can be expected that differences in

variraju po intenzitetu među različitim skupinama i zajednicama. Nečije trenutne vrijednosti određene su njegovom osobnošću s jedne strane te kulturnim i socijalnim kontekstom s druge strane. Prema tome, može se očekivati da postoje razlike među ljudima različite životne dobi, stila života, socioekonomskog statusa, rase i etničke pripadnosti u poimanju koncepta kvalitete života (KNOX, 1976a).

Nadalje, objektivni pokazatelji su pozitivističke, kvantificirajuće mjere, no postoje mnogi socijalni aspekti koji se ne daju kvantificirati, jer su kvalitativne prirode ili ovise o subjektivnoj procjeni ljudi. Spomenuto je već da se takvi aspekti katkad pokušavaju zamijeniti surogatnim mjerama, no katkad je teško pronaći adekvatnu zamjenu. Primjerice, može se postaviti pitanje na koji način kvantificirati atraktivnosti ili estetsku kvalitetu nekoga prostora, kada su takve procjene podložne individualnim ukusima i vrlo su subjektivne.

Vjerojatno je ipak najveći nedostatak objektivnih pokazatelja što ne odražavaju iskustvenu dimenziju kvalitete života (CAMPBELL I DR., 1976.). Zbog navedenih razloga, mnogo je istraživača već u 1970-ima počelo zagovarati upotrebu drugačijih mjera u proučavanju kvalitete života. Ideja da su posredni, *čvrsti* pokazatelji nedovoljno vjerni pokazatelji nečije kvalitete života, potaknula je uvođenje izravnih mjera percepcije i evaluacije blagostanja, odnosno upotrebu subjektivnih pokazatelja. Perspektiva da je subjektivna procjena i iskustvo pojedinca ono što definira kvalitetu života, uvela je istraživanja i shvaćanje kvalitete života u novo razvojno poglavlje.

Subjektivni pokazatelji

U prvim istraživanjima kvalitete života početkom 1970-ih naglasak je bio na *čvrstim* statističkim pokazateljima. Iako su do tada uobičajeni ekonomski pokazatelji blagostanja prošireni s brojnim novim pokazateljima, mnogi znanstvenici smatrali su da niti takve široko definirane objektivne mjere ne mogu biti dostatni pokazatelji nečije kvalitete života. Pomoću njih je bilo moguće utvrditi da postoje različitosti među mjestima, skupinama i tijekom vremena. No nakon tih spoznaja javila se potreba za istraživanjem uzroka i posljedica iz kojih te razlike u socijalnom blagostanju proizlaze.

Vrlo je brzo postalo jasno da napredak u istraživanjima kvalitete života nije u dodavanju novih objektivnih indikatora i proširivanju

perception of the quality of life exist among people of different ages, life style, socio-economic status, race and ethnic group (KNOX, 1976a).

Furthermore, objective indicators are positivistic, quantifying measures, but there are many social aspect which cannot be quantified because of their qualitative nature or because they depend on subjective evaluation. It has already been mentioned that such aspects sometimes tend to be substituted with surrogate measures, but sometimes it is hard to find an adequate replacement. For example, it is possible to raise the question how to quantify the attractiveness or aesthetic quality of an area, when such evaluations depend on individual preferences and are highly subjective.

It is most likely that the greatest disadvantage of objective indicators lies in their inability to express the experiential dimension of the quality of life (CAMPBELL ET AL., 1976). Because of the above mentioned reasons, many researchers in the 1970s started promoting the use of different measures in quality of life research. The idea that indirect, *hard* measures are not sufficiently reliable indicators of a person's quality of life influenced the application of direct measures of perception and evaluation of well-being, i.e. the use of subjective indicators. The perspective that subjective evaluation and experience of an individual is what defines the quality of life brought the comprehension of the quality of life and its research into a new development era.

Subjective indicators

First quality of life studies from the 1970s mainly dealt with *hard* statistical measures. Although the well established economic indicators of well-being were extended by numerous new indicators, many scientists considered that even such widely defined objective measures cannot be sufficient indicators of a person's quality of life. Their use made it clear that differences among places, groups and different periods of time exist. These findings fostered the need for further research into the causes and consequences of such differences in social welfare.

Very soon it became clear that progress in the research of quality of life is not in simply adding more objective indicators and enlarging statistic bases, but in updating the existing ones with other dimensions of the quality of life, i.e. in including elements of satisfaction

statističkih baza, nego u nadopunjavanju postojećih s drugim dimenzijama kvalitete života, odnosno uključivanjem elemenata zadovoljstva ili sreće pojedinaca. Pojedinci su krajnji konzumenti svega dobrog i lošeg što proistječe iz neke zajednice i okoliša kojem ona pripada, te su stoga najbolji evaluatori vlastita života (ABRAMS, 1973. prema PACIONE, 1982a). Upravo percepcija blagostanja ili njegov nedostatak kako ga vidi pojedinac ključni su za definiranje njegove kvalitete života (ANDREWS, WITHEY, 1974.; SCHNEIDER, 1975.).

Fenomenološko shvaćanje da su emocije, koje postoje prema nekom aspektu života ili prema ukupnom životu, same po sebi značajna stvarnost, bilo je glavni poticaj pionirskim radovima i razvoju mjera koje najizravnije pokazuju stupanj nečijeg zadovoljstva vlastitom kvalitetom života. Najzaslužniji za njihov razvoj su Campbell i Converse (1972. prema HUDLER, RICHTER, 2002.), Campbell i dr. (1976.) te Andrews i Withey (1974.), no i brojni drugi autori (CANTRIL, 1965.; BRADBURN, 1969.; ABRAMS, 1973.; ALLARDT, 1976.). Temelj subjektivnih pokazatelja čine mjerenja psiholoških stanja pojedinca, odnosno njihovih vrijednosti, stavova, vjerovanja, aspiracija, zadovoljstva i sreće. Kako bi se pratile i razumjele socijalne promjene te kvaliteta života u nekom društvu, u obzir se uzimaju prosječne vrijednosti populacije (LUČEV, 2006.). Subjektivni pokazatelji, dakle, mjere subjektivnu kvalitetu života nekoga pojedinca, odnosno predstavljaju individualnu procjenu objektivnog stanja okoliša i vlastita života.

Primjena subjektivnih pokazatelja omogućila je nove spoznaje o kvaliteti života koje se putem objektivnih pokazatelja uglavnom mogu samo pretpostavljati. Andrews i Withey (1976. prema PACIONE, 1982a: 505) navode sljedeće spoznaje koji proizlaze iz primjene subjektivnih mjera:

- bolje razumijevanje strukture i ovisnosti različitih faktora koji utječu na kvalitetu života,
- spoznavanje kako su zadovoljstvo ili nezadovoljstvo kvalitetom života raspoređeni u zajednici,
- razumijevanje kako ljudi kombiniraju pojedinačne aspekte života u evaluaciji ukupne kvalitete života,
- identifikaciju problema koji zaslužuju pozornost i potrebnu reakciju odgovornih ili zajednice,
- bolje shvaćanje koji uvjeti čine i vode individualnom zadovoljstvu te učinke zadovoljstva na ponašanje pojedinca.

or happiness of individuals. Individuals are the final consumers of everything good and bad that comes out of a community or environment to which the community belongs, so they are the best evaluators of their own lives (ABRAMS, 1973 after PACIONE, 1982a). Perceptions of well-being or lack of well-being, as individuals perceive it, are vital for defining the quality of their lives (ANDREWS, WITHEY, 1974; SCHNEIDER, 1975).

Phenomenological comprehension that emotions which exist for a certain aspect of life or for life as a whole are by themselves an important reality was the main impulse for pioneer work and development of measures which most directly show the level of a person's satisfaction with the quality of life. Much credit for the development of subjective indicators goes to Campbell and Converse (1972; after HUDLER, RICHTER, 2002), Campbell et al. (1976) and Andrews and Withey (1974), but also to many other authors (CANTRIL, 1965; BRADBURN, 1969; ABRAMS, 1973; ALLARDT, 1976). Measures of psychological state of individuals, their values, attitudes, beliefs, aspirations, satisfaction and happiness make the base of subjective indicators. To follow and understand the social changes in a certain community the average values of the population are considered (LUČEV, 2006). Subjective indicators measure the subjective quality of life of an individual and represent his evaluation of the environmental conditions and his own life.

Application of subjective indicators provided new understanding of the quality of life which can only be presumed by the use of objective indicators. Andrews and Withey (1976; after PACIONE, 1982a: 505) propose several values which include:

- understanding the structure and independence or interrelationship among different life concerns,
- knowledge of how satisfaction and dissatisfaction are distributed within society,
- understanding how people combine their feelings about individual life concerns into an overall evaluation of quality of life,
- to identify problems that need attention and possibly societal action,
- to achieve better understanding of the causes and conditions which lead to individuals' feelings of wellbeing and the effect of such feelings on their behaviour.

Prednosti i nedostaci subjektivnih pokazatelja kao mjera za istraživanje koncepta kvalitete života

Subjektivni pokazatelji također imaju određene nedostatke. Naime percepcije pojedinaca koje mjere ne moraju biti nužno povezane s objektivnom situacijom. Primjerice, razina zadovoljstva osobnim dohotkom ne mora biti izravno povezana s tim dohotkom već može biti pod utjecajem pojedinačnih očekivanja. Ako su njegova očekivanja manja, i zadovoljstvo dohotkom može biti veće, bez obzira koliko on objektivno iznosi. Argumenti protiv subjektivnih pokazatelja općenito se mogu svrstati u četiri kategorije (ANDREWS, 1974.: 285): 1) valjanost, 2) interpretacija, 3) cjelovitost, 4) primijenjenost.

Rasprava o problemu valjanosti subjektivnih pokazatelja (pitanje mjere li ono što je njima namjeravano, odnosno subjektivno blagostanje) usmjerena je na mogućnost da oni nisu dovoljno dobre mjere za razumijevanje načina na koji ljudi vrednuju svoj život u cjelini i pojedinačne aspekte koji utječu na njegovu kvalitetu. Jedno od mišljenja jest da većina ljudi ne razmišlja o tome jesu li zadovoljni svojim životom, pa stoga ne mogu ni odgovoriti na tako postavljeno pitanje. No kako su istraživanja pokazala, većina ljudi ipak razmišlja o tome kakva je njihova kvaliteta života te zna uživa li u životu (VEENHOVEN, 1996.).

Interpretacija subjektivnih pokazatelja, kao i objektivnih, može biti problematična. Promatrajući iz fenomenološke perspektive, Andrews (1974.) navodi da su osjećaji koje svaki pojedinac ima, sami po sebi značajna činjenica i važan dio onoga što tvori nečiji život. Ako je distribucija kvalitete života u prostoru kao i neizolirano poboljšanje značajan interes društva, onda je i život onakvim kakvim ga doživljavaju sami ljudi vrijedan interesa. Različitosti među pojedincima, grupama, prostorima i vremenima svakako utječu na formiranje stavova i percepcija, no takve različitosti ne umanjuju njihovu istinitost.

Problem cjelovitosti subjektivnih pokazatelja podrazumijeva zabrinutost da postoji nebrojeno velik broj mogućih aspekata koji utječu na kvalitetu života te da je teško znati jesu li zaista obuhvaćeni svi aspekti koncepta. Andrews i Withney (1974.) su analizirali 123 varijable koje se tiču različitih aspekata života (dobivenih iz različitih studija na reprezentativnom uzorku američkih ispitanika) i pokazali da kombinacija od otprilike dvanaest

Advantages and disadvantages of subjective indicators as measures for research of the quality of life concept

Subjective indicators have also certain disadvantages. They measure the perceptions of individuals which do not necessarily reflect objective conditions. For example, the level of satisfaction with personal income does not need to be directly connected with the income itself, but can be under the influence of an individual's expectation. If his expectations are not so high, then satisfaction with income can be higher, regardless of the objective amount. The arguments against subjective indicators can generally be classified in four categories (ANDREWS, 1974: 285): 1) validity, 2) interpretation, 3) completeness, 4) utility. Each of the categories will be explained in details.

Discussion on the issue of subjective indicators' validity (the question of whether they measure what was intended to be measured, i.e. the subjective well-being) is directed towards the possibility that they are not good enough measures of how people evaluate their lives and its various components. One opinion is that most people do not really think about their reactions and satisfaction with the quality of their lives, hence they cannot give an answer on such a question. However, as research has shown, the majority of people think about the quality of their lives and know if they enjoy in life (VEENHOVEN, 1996.).

The interpretation of subjective indicators, as well as objective, can be problematic. Observing from the phenomenological perspective, Andrews (1974) states that feelings of each person are an important part of what makes someone's life. If the spatial distribution of the quality of life and its improvement is a social priority, then the lives people are experiencing are worth knowing about. Differences among individuals, groups, spaces and time surely influence the opinion making and perceptions, but such differences do not diminish the reality of the perception itself.

The problem of completeness of subjective indicators implies worries that there is an infinite range of possible human concerns which influence the quality of life and that it is difficult to know if all aspects of the concept are included in the measurement. Andrews and Withey (1974) analyzed 123 variables regarding different aspects of living (obtained from different studies on the representative sample of the Americans) and showed that the combination of 12 selected

domena objašnjava 50–60 % varijance u ukupnom indeksu kvalitete života.

Posljednja kategorija argumenata za ili protiv subjektivnih pokazatelja bavi se pitanjima njihove primjenjivosti. Ideja u pozadini ovoga argumenta je da ljudi ne znaju što je dobro ili loše za njih, pa nisu niti kvalificirani da procjenjuju svoje životne uvjete, niti da se na osnovi njihovih procjena oblikuju javne politike. Iako se ne može pretpostaviti da svaki pojedinac posjeduje sve potrebno znanje za procjenu svih aspekata života, još je manje vjerojatno da netko drugi smije ili može donositi zaključke umjesto njega. Knox i McLaran (1978.) navode da se preferencije i prioriteta planera ili političara, iako su formalno školovani ili izabrani da donose odluke u ime većine, ne moraju poklapati s onima stanovnika. Pogotovo zato što te grupe donose zaključke na drugačijim temeljima (evaluacije planova razvoja, *cost-benefit* analize, politički interesi i dr.).

Također, kao argument protiv subjektivnih pokazatelja navode se troškovi prikupljanja informacija (ankete, intervjui). Andrews (1974.) ističe da se troškovi pojedinog istraživanja mogu umanjiti serijom istraživanja te upotrebom standardiziranih tehnika uzorkovanja, procedura intervjuiranja, anketiranja, analiziranja i sl.

S druge strane, najvećom prednošću subjektivnih pokazatelja smatra se to što mogu *uhvatiti* iskustva i percepcije koje su važne pojedincima. Osim toga, subjektivni pokazatelji imaju još neke prednosti nad objektivnim pokazateljima. Objektivne mjere često sadrže više dimenzija i različite mjerne jedinice te se usporedbe među njima teško mogu vršiti bez inicijalnog provođenja pojedinih statističkih postupaka. Primjerice, podaci o smrtnosti dojenčadi, broju automobila koje posjeduje pojedino kućanstvo, osobnom dohotku i emisijama CO₂, iskazani su u drugačijim mjernim jedinicama pa ih prije početka analiziranja nužno treba ujednačiti. S druge strane, subjektivnim pokazateljima mjeri se samo jedna dimenzija (npr. zadovoljstvo) uz pomoć ujednačenoga mjernog instrumenta (npr. Lickertove skale) što olakšava usporedbu među njima.

Subjektivni pokazatelji odražavaju osobnu percepciju kvalitete života te su omogućili definiranje ključnih dimenzija kvalitete života. Bez njih bilo bi nemoguće odrediti što zaslužuje najviše pažnje pri analizi. Subjektivni pokazatelji omogućuju lakše uspoređivanje rezultata među pojedinim područjima kvalitete života što može pomoći u identificiranju onih područja koja su npr.

domains explains 50-60% of the variance in the index of overall life quality.

The last category of arguments for or against subjective indicators concerns the question of their utility. The argument behind this idea is that people do not know what is good or bad for them so they are not qualified to estimate their living conditions or to form public policies based on their estimation. Although it cannot be presumed that every individual owns all necessary knowledge to estimate all living aspects, it is even less possible that someone else is allowed or qualified to make conclusions for them. Knox and MacLaran (1978) state that preferences and priorities of planners or politicians, although they are formally educated or chosen to make decisions on behalf of the majority, do not have to match with those of the inhabitants, mostly because those groups base their conclusions on a different ground (evaluation of the development plans, cost benefit analyses, political interests etc.). Also, the cost of surveys (questionnaires, interviews) is mentioned as an argument against subjective indicators. But Andrews (1974) emphasized that the cost of a single research can be cut by conducting a series of studies and by applying standardized sampling techniques, interview procedures, instruments and analyses.

On the other hand, the biggest advantage of subjective indicators is considered to be the fact that they can *catch* experiences and perceptions important to individuals. Apart from that, subjective indicators have some other advantages over objective ones. Objective measures often contain more dimensions and different measurement units, so the comparison between them cannot be carried out without the initial application of certain statistical procedures. For example, data on infant mortality, number of cars per household, personal income and CO₂ emission are expressed by different measurement units, so before analysing they need to be standardized. On the other hand, subjective indicators measure just one dimension (for example, satisfaction) by standardized measurement instruments (for example, Lickert scale) which make the comparison easier.

Subjective indicators express a personal perception of the quality of life, so they enable the definition of key quality of life dimensions. Without them, it would be impossible to define what deserves the most attention in an analysis. Subjective indicators enable easier comparison of results among quality of life domains. This

ocijenjene ispod prosjeka kod većine ispitanika te stoga zaslužuju posebnu pažnju istraživača. Takva znanja potiču na daljnja istraživačka pitanja primjerice o tome gdje žive ljudi koji su nezadovoljni i što je tome uzrok. Redovitim praćenjem i prikupljanjem indikatora moguće je ustvrditi tendenciju razvoja, odnosno koji prostori i zajednice doživljavaju promjene kroz saznanje o tome da li razina zadovoljstva pada, raste ili ostaje na istoj razini. Nadalje, subjektivni pokazatelji ne podliježu u tolikoj mjeri poteškoćama prilikom interpretacije kao objektivni pokazatelji koji nerijetko neizravno mjere neki fenomen (npr. pokazatelji kriminala).

Dakle, još su od 1970-ih mnogi autori zagovarali uvažavanje subjektivnih pokazatelja kao jednakovrijednog pristupa u istraživanjima kvalitete života. Ova dva načina mjerenja (objektivni i subjektivni) često su smatrana potpuno suprotnima i međusobno isključivima te su bila povod brojnim žustrim raspravama (DIENER, SUH, 1997.). Prihvatanjem ideje da objektivni pokazatelji nisu savršeni pokazatelji, nego da podliježu određenim problemima prilikom mjerenja i interpretacije, studije koje se koriste subjektivnim mjerama u istraživanju kvalitete života postale su jednako uvriježene. Do danas je proveden velik broj istraživanja u kojima dominira subjektivni pristup u proučavanju kvalitete života, kako pojedinih istraživača, tako i internacionalnih institucija (LEELAKULTHANIT, DAY, 1992.; VAN POLL, 1997.; MICHALOS, ZUMBO, 1999.; SIRGY I DR., 2000.; TUAN SEIK, 2000.; SIRGY, CORNWELL, 2002.; MORRISON, 2007.; MORO I DR., 2008.; ZEBARDAST, 2009.; EUROBAROMETER, 2010.).

Komplementarni pristup – kombinacija objektivnih i subjektivnih mjera

Razvojem istraživanja kvalitete života znanstvenici su spoznali da objektivne i subjektivne mjere nisu međusobno isključive te da je radi potpunijeg razumijevanja koncepta najbolje primijeniti i jedne i druge. Paralelna upotreba objektivnih i subjektivnih pokazatelja u istraživanju važna je upravo zbog metodoloških razloga. Njihova zajednička primjena umanjuje nedostatke pojedine vrste mjerenja i omogućuje alternativne poglede na kvalitetu života. Pojedini znanstvenici smatraju ozbiljnom pogreškom naglašavati važnost i superiornost jednih, a umanjivati značaj drugih (DIENER, SUH, 1997.). S obzirom na to da niti jedan tip mjera sam po sebi

can help in identifying domains which deserve special attention from researchers as they are, for example, valued below average. Further research, such as where unsatisfied people live and what causes their dissatisfaction, is stimulated by this knowledge. By regular monitoring and collecting of indicators, it is possible to predict the direction of development, i.e. which areas and communities experience change if a level of satisfaction decreases, increases or remains the same. Furthermore, subjective indicators are not liable to difficulties in interpretation as objective indicators which often measure a certain phenomenon (such as crime) indirectly.

Since the 1970s, many authors have argued in favour of the acceptance of subjective indicators as an equally valid approach in the quality of life research. These two ways of measuring (objective and subjective) are often considered to be exactly the opposite and mutually exclusive and were the cause of many lively discussions (DIENER, SUH, 1977). By accepting the idea that objective indicators are not flawless, but liable to certain problems in measuring and interpretation, studies which use subjective quality of life measures have become common. Up to now, a large number of studies (from individual researchers to international institutions) with a dominant subjective approach to quality of life research have been conducted (LEELAKULTHANIT, DAY, 1992; VAN POLL, 1997; MICHALOS, ZUMBO, 1999; SIRGY ET AL., 2000; TUAN SEIK, 2000; SIRGY, CORNWELL, 2002; MORRISON, 2007; MORO ET AL., 2008; ZEBARDAST, 2009; EUROBAROMETER, 2010).

Complementary approach – a combination of objective and subjective measures

Through the development of the quality of life research scientists have become aware that subjective and objective measures are not mutually exclusive. Hence, for the purpose of better understanding of the concept, it would be the best to apply both. The parallel use of objective and subjective indicators is important for methodological reasons. Their joint use reduces deficiencies of a single measure and enables alternative views on the quality of life. Some scientists consider emphasizing the importance and superiority of one over the other a serious error (DIENER, SUH, 1997). Since no type of measure is complete by itself, and each covers

nije potpun te da svaki od njih zahvaća različite aspekte kvalitete života, mnogi znanstvenici slažu se da će se kvalitetniji rezultati dobiti primjenom i jednih i drugih indikatora (DIENER, SUH, 1997.; VEENHOVEN, 1997.; NOLL, 2000.; TÜRKSEVER, ATALIK, 2001.; VAN KAMP I DR., 2003.; MICHALOS, 2005.; DAS, 2008.; SEREKE TESFAZGHI, 2009.).

Prvi geografski radovi na temu nastali su na temelju objektivnih pokazatelja, a s uviđanjem njihovih nedostataka u istraživanja se uvode i subjektivni pokazatelji. Ipak, njihova zajednička primjena nije česta.

Temeljne radove iz ovoga područja predstavljaju istraživanja koja su u sedamdesetim godinama prošlog stoljeća proveli već spomenuti David Smith (1973a, 1973b) i Paul Knox (1975.).

Primjerice, Smith je u radu *The geography of social well-being in the United States* (1973b) proveo niz komparativnih analiza socijalnog blagostanja u SAD-u. Analize su provedene na temelju velikog broja objektivnih indikatora na međudržavnoj razini, među osamnaest metropolitanskih područja SAD-a te na intraurbanom razini. Autor je posebno naglašavao važnost i potrebu primjene indikatora na nižim geografskim razinama. Naime pokazatelji koji se prikupljaju samo na razini država, mogu prikriti razlike koje postoje među velikim regijama. Isto tako, pokazatelji na razini država ne osiguravaju dovoljno jasnu sliku o razlikama među gradovima, a i unutar gradova postoje područja koja su prosperitetna i ona koja propadaju. Stoga, svaka razina zahtijeva zasebnu analizu i specifičan skup pokazatelja. Na temelju dobivenih rezultata iz studije o razlikama među saveznom državama, Smith je donio opće zaključke o tome što je potrebno da pojedina država SAD-a bude visoko ili nisko rangirana po pitanju socijalnog blagostanja. Detaljnu intraurbanu studiju proveo je u gradu Tampa na Floridi. Istraživanje je provedeno u kontekstu rješavanja praktičnih problema u urbanom planiranju, odnosno u cilju identifikacije *ključnih područja* u koje je potrebno usmjeriti resurse i programe namijenjene poboljšanju kvalitete života njihovih stanovnika. Smith je naglašavao da smisao istraživanja na unutargradskoj razini nije puko rangiranje susjedstva prema kvaliteti, nego upućivanje na susjedstva u kojima postoje nejednakosti među socijalnim uvjetima.

U studiji *Social well-being: A spatial perspective* (1975.) Knox je uz opća teorijska razmatranja o objektivnim pokazateljima, iznio i rezultate istraživanja o geografiji razine života (ne koristi pojam kvalitete života) u Engleskoj i Walesu 1961.

different quality of life aspects, many scientists agree that better results are obtained by applying both indicators (DIENER, SUH, 1997; VEENHOVEN, 1997; NOLL, 2000; TÜRKSEVER, ATALIK, 2001; VAN KAMP ET AL., 2003; MICHALOS, 2005; DAS, 2008; SEREKE TESFAZGHI, 2009).

First geographical research on the subject was based upon objective indicators, but the recognition of their disadvantages led to the implementation of subjective indicators. However, their joint use is not very common.

Fundamental studies were carried out in the 1970s by previously mentioned David Smith (1973a, 1973b) and Paul Knox (1975). For example, Smith in *The geography of social well-being in the United States* (1973b) conducted several comparative analyses of social well-being in the USA. The analyses were based on a large number of objective indicators applied at the interstate level, at inter-city level (eighteen US metropolitan areas), and at intra-city level. The author specially emphasized the importance and need of indicator application on smaller territorial units. In other words, indicators collected only on state level can mask the differences which exist among regions. At the same time, state level indicators do not give an enough clear picture of differences among cities and within cities. Hence, each level requests a special analysis and a specific set of indicators. From the results of this study Smith formed a general conclusion on what is needed for states to become highly or lowly ranked on the social well-being scale. He conducted a detailed intra-city study for the City of Tampa, Florida. The study was conducted with the purpose of solving practical problems in urban planning, i.e. with the aim of identifying key areas in need of resources and improvement programmes. Smith emphasized that the point of research on intra-city level is not just the ranking of neighbourhoods according to their quality of life, but pointing to the neighbourhoods in which social conditions inequality exists.

In *Social well-being: A spatial perspective* (1975) Knox gave general theoretical considerations on objective indicators, as well as the results of research on the level of living (he did not use the term quality of life) in England and Wales in 1961. The author used 53 objective indicators to analyse 12 main domains which influence the level of living (housing, health, education, social status, employment, affluence, leisure, social security, social stability,

Autor je rabio 53 objektivna pokazatelja kako bi proučio 12 glavnih područja koja utječu na razinu života (stanovanje, zdravlje, obrazovanje, socijalni status, zaposlenje, materijalno bogatstvo, rekreacija, socijalna sigurnost, socijalna stabilnost, demografska struktura, opći fizički okoliš, demokratsko sudjelovanje u odlučivanju). Rezultate je objedinio u jedinstven pokazatelj, odnosno indeks razine života. Za njegovu konstrukciju poslužile su mu četiri varijable koje su se pokazale *dijagnostičkima*: prosječan broj osoba po sobi, udio kućanstava bez vlastite kupaonice, udio nezaposlenog ekonomski aktivnog stanovništva te udio stanovništva starog 60 i više godina. Na osnovi indeksa razine života Knox je detaljno analizirao prostornu distribuciju i razlike u razini života u 145 administrativnih prostornih jedinica Engleske i Walesa. No Knox je ubrzo uvidio potrebu za uključivanjem subjektivnih indikatora u istraživanja te su već potkraj sedamdesetih godina nastali radovi (KNOX, 1976b, KNOX, MACLARAN, 1978.) koji su uključivali i ovaj tip pokazatelja.

Među prvim geografima koji su zagovarali važnost zajedničke primjene objektivnih i subjektivnih pokazatelja u istraživanjima bila je Susan Cutter. Prema njoj, istraživanja kvalitete života predstavljaju tipično područje interesa geografa (CUTTER, 1985.). No, kako naglašava, geografski pogled na problematiku je ipak prilično drugačiji od primjerice ekonomskog, jer geografi nisu zainteresirani samo za objektivne pokazatelje (dijeli ih na socijalne i okolišne) nego i za percepcijske (autorica se koristi tim pojmom za subjektivne pokazatelje). Percepcijski pokazatelji su važni jer predstavljaju subjektivnu procjenu objektivnih uvjeta te odražavaju iskustva, osjećaje i povezanost koje pojedinci posjeduju prema pojedinim mjestima. Nečiji doživljaj mjesta i osjećaji prema njemu zasigurno utječu na pojedinčevu evaluaciju toga mjesta, ponašanje prema njemu i na ukupnu kvalitetu života koju pojedinac u njemu pronalazi. Prema tome, iz geografske perspektive, percepcijski (subjektivni) pokazatelji jednako su važni za istraživanja kvalitete života kao i objektivne mjere koje su češće u upotrebi. Cutter smatra da su geografi iznimno osposobljeni za provođenje analiza kvalitete života, jer, zahvaljujući širokom obrazovanju, mogu razumjeti te primjenjivati i jedne i druge indikatore što rezultira holističkim pogledom na odnos čovjek – okoliš.

Iako su s godinama uslijedila mnoga geografska istraživanja na temu (ROGERSON I DR., 1989a; ROGERSON I DR., 1989b; IRA, KOLLAR, 1994.; ROGERSON, 1995.; ROGERSON I DR., 1996.;

demographic structure, general physical environment, democratic participation). The results were aggregated into one indicator, the level of living index. For his construction, he used four variables which showed to be *diagnostic*: the average number of persons per room, the percentage of households without a fixed bath, the percentage of economically active persons out of employment and percentage of persons aged 60 or more. Based on the level of living index, Knox analysed in detail the spatial distribution and differences in level of living within 145 administrative spatial units of England and Wales. Relatively soon, Knox recognized the need to include subjective indicators into his research, which he did in his studies during the late seventies (KNOX, 1976b; KNOX, MACLARAN, 1978).

Among the first geographers who advocated the importance of the joint use of objective and subjective indicators was Susan Cutter. According to her, the quality of life research represents a typical field of interest for a geographer (CUTTER, 1985). As she points out, the geographic view of the problem is fairly different from, for example, economic, because geographers are not interested only in objective indicators (she divides them into social and environmental), but also in perceptual indicators (the author uses this term for subjective indicators). Perceptual indicators are important because they represent the subjective evaluation of the objective conditions and convey experience, feelings and attachments which individuals have for certain places. Someone's impression of a place and their feelings for that place surely influence the individual's evaluation of the place, attitude towards the place and the overall quality of life which the individual finds in it. So, from the geographic perspective, perceptual (subjective) indicators are as important for the quality of life as are the more traditional, objective measures. Cutter thinks that geographers are particularly well-suited to conduct and evaluate quality of life analyses. Thanks to broad education, geographers are able to understand and apply both indicators which results in a holistic view of human-environment systems.

Although many geographical studies on the subject were done during the years (ROGERSON ET AL., 1989a; ROGERSON ET AL., 1989b; IRA, KOLLAR, 1994; ROGERSON, 1995; ROGERSON ET AL., 1996; KREVS, 1998, 1999, 2001, 2002; DZUROVA, DRAGOMIRECKA, 2000; LANGLOIS,

KREVS, 1998., 1999., 2001., 2002.; DZUROVA, DRAGOMIRECKA, 2000.; LANGLOIS, ANDERSON, 2002.; MEE, 2002.; MCCREA I DR., 2005.; MCCREA I DR., 2006.; MORRISON, 2007.; DUNNING I DR., 2008.; SLAVUJ, 2011.), vrlo je malo onih koja kombiniraju objektivne i subjektivne pokazatelje. Naime usprkos promišljanjima o važnosti uključivanja oba tipa pokazatelja, geografski radovi (kao i radovi autora drugih struka) kojima se koriste obje vrste mjera, ostali su do danas u manjini. Dijelom je, zasigurno, tome razlog metodološka kompleksnost i zahtjevnost istraživanja koja primjenjuju i jedne i druge pokazatelje.

Ipak, vrijedi istaknuti dobar primjer geografske studije kvalitete života u kojoj su primijenjeni objektivni i subjektivni pokazatelji. Riječ je o istraživanju koje je proveo Michael Pacione (1986.) u Glasgowu. Na razini cijeloga grada, Pacione je koristio objektivne pokazatelje kako bi identificirao strukturu i distribuciju različitih razina kvalitete života u prostoru grada. Kombinaciju subjektivnih i objektivnih pokazatelja primijenio je pak za dublju analizu karakteristika kvalitete života unutar prostorno manjih gradskih područja, koje je izdvojio prema stupnju deprivacije. Ovim radom Pacione je jasno pokazao da paralelna primjena objektivnih i subjektivnih mjera može rezultirati sveobuhvatnijom analizom. Takva detaljna istraživanja mogu biti od iznimne koristi lokalnim vlastima jer mogu pomoći pri identifikaciji problematičnih područja te u oblikovanju projekata i akcija koje za cilj imaju poboljšanje kvalitete života dijelova grada i socijalnih skupina kojima je pomoć najpotrebnija.

Zaključak

Uradu se raspravlja o objektivnim i subjektivnim pokazateljima koje se primjenjuju u istraživanju kvalitete života. S obzirom na to da je riječ o različitim mjerama sa svojim posebnostima, većim dijelom rada diskutira se zasebno o njihovom razvoju te metodološkim specifičnostima. Na kraju rada ističe se vrijednost njihove zajedničke primjene u istraživanjima. Naime obje vrste pokazatelja imaju svoje prednosti i nedostatke, ali su konceptualno komplementarne. Cjelovito razumijevanje kvalitete života zahtijeva znanje o tome kako objektivni uvjeti okoliša utječu na zadovoljstvo životom pojedinca. Također, za ispravnu interpretaciju objektivnih indikatora potrebno je saznanje o iskustvenim dimenzijama pojedinaca i onome što oni smatraju bitnim. Zajednička primjena obje vrste

ANDERSON, 2002; MEE, 2002; MCCREA ET AL., 2005; MCCREA ET AL., 2006; MORRISON, 2007; DUNNING ET AL, 2008; SLAVUJ, 2011), very few of them combine objective and subjective indicators. Despite the importance of applying both types of indicators, geographical (and other) studies which combine both types of measures are still less numerous. The reason for this is probably in the methodological complexity of studies that use both indicators.

However, it is worth to mention a good example of a geographical study on the quality of life which applies both indicators. It is the research conducted by Michael Pacione (1986) in Glasgow. On the city level, Pacione applied the objective indicators to identify the structure and distribution of different quality of life levels in the space of the city. For deeper analysis of the quality of life conditions within smaller urban areas, which he selected according to the level of deprivation, he used the combination of both indicators. With this work Pacione clearly presented that the parallel application of objective and subjective measures can result in a more complete analysis. Such detailed studies can be of an exceptional value for local authorities because they can help in identifying problem areas, as well as in the formulating the projects and actions with the aim of improving the quality of life in those parts of the city that need help the most.

Conclusion

The paper deals with objective and subjective indicators which are being used in the quality of life research. Since these measures are different in many aspects, the largest part of the paper separately discusses their development and methodological specifics. At the end of the paper, the value of their joint application is emphasized. Both types of indicators have their advantages and disadvantages, but conceptually they are complementary. Integral comprehension of the quality of life requires an understanding of how objective environmental conditions influence individual life satisfaction. Also, for the correct interpretation of objective indicators, a comprehension of individual's experience and their preferences is needed. The joint implementation of both indicators can provide more reliable knowledge on the level of the quality of life in a certain geographical area. In

indikatora može osigurati pouzdanije informacije o razini kvalitete života u određenom prostoru. Drugim riječima, objektivni pokazatelji odražavaju objektivna stanja i promjene neovisno o osobnim evaluacijama, a subjektivni pokazatelji naglašavaju individualnu percepciju i evaluaciju vanjskih uvjeta te pokazuju do koje su razine ispunjena subjektivna očekivanja.

Geografi su bili među prvima koji su zagovarali primjenu pokazatelja na različitim prostornim skalama kako bi bilo moguće identificirati i analizirati socio-prostorne varijacije u kvaliteti života i na nižim geografskim razinama, a ne samo na nacionalnoj, što je u početku ovih istraživanja bila najčešća razina analize. Danas se istraživanja koja primjenjuju indikatore provode na svim razinama, s time da je od 1990-ih godina lokalna razina postala središnji prostor interesa. Prva, temeljna geografska istraživanja ove problematike iz 1970-ih godina koristila su prvenstveno objektivne pokazatelje. No vrlo brzo javljaju se radovi koji primjenjuju subjektivne mjere. Ti su radovi bili potaknuti jačanjem spoznaje o važnosti percepcije i iskustva pojedinca te osjećaja koji oni imaju prema mjestima. Danas se u geografskim radovima podjednako koriste objektivni i subjektivni pokazatelji, no istraživanja koja kombiniraju obje vrste mjera relativno su rijetka (što je uostalom slučaj i s radovima autora drugih struka). U odluci koje će pokazatelje istraživač primijeniti u istraživanju veliku ulogu igraju specifični ciljevi svake studije, njezin prostorni obuhvat te, općenito, mogućnosti i resursi koji su istraživaču na raspolaganju.

other words, objective indicators express the objective conditions and changes regardless of personal evaluation, while the subjective ones emphasize individual perception and evaluation of external conditions and indicate the level of subjective expectations fulfilment.

Geographers were among the first who advocated an implementation of indicators on different spatial scales to enable the identification and analysis of socio-spatial variations in the quality of life at lower geographical levels (not only at national levels, which was the most common in the beginning of such studies). Nowadays, studies applying indicators are being conducted at all levels, and since the 1990s, the local level has become a major area of interest. The first, most influential geographical studies from the 1970s used mainly objective indicators, but soon the studies using subjective measures emerged. These works were encouraged by the ideas about the importance of individual's perception, experience and attachment to a place. Today, geographical studies equally apply objective and subjective indicators, but those combining both kinds of measures are relatively rare (which applies to other scientific fields, as well). In deciding which approach to employ, it is necessary to take into consideration the specific aims of each study, its spatial coverage, and, in general, the possibilities and resources which a researcher has on disposal.

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