U

Ubuntu: The Good Life

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Synonyms

African ethics; Human excellence; Humanness; Self-realization; *Summum bonum*

Definition

The word "*ubuntu*" is from the southern African Nguni linguistic group, which includes the Zulu and Xhosa languages, and it literally means humanness. To have *ubuntu* is to be a person who is living a genuinely human way of life, whereas to lack *ubuntu* is to be missing human excellence or to live like an animal. It is common for traditional black people on the continent to believe that one's basic aim in life should be to exhibit *ubuntu* (though different linguistic groups will have their own, corresponding term), which one can do by prizing communal relationships with other people.

Description

"*Ubuntu*" is the word for humanness in Zulu, Xhosa, and other Nguni languages of southern Africa, where it is widely held among indigenous black people that one's foremost goal in life should be to exhibit *ubuntu*. As is explained in what follows, there are similarities between, on the one hand, a conception of the ▶ good life grounded in ideals of *ubuntu*, which are representative of ethical perspectives in sub-Saharan Africa, and, on the other, Western notions of ▶ *eudaimonia*, ▶ self-actualization, and virtue. However, this entry also brings out several important and interesting differences between them, with some focus on the idea, so salient in African ▶ ethics, that one is to realize oneself solely through others.

Readers should be aware that values associated with talk of "*ubuntu*" (and cognate terms elsewhere below the Sahara) are characteristic of precolonial African peoples who are well known for orally transmitting their cultures. It has been only in the postwar independence era that a substantial number of Africans have adopted literate forms of communication; it is recently that the world has obtained substantial access to written documents about traditional sub-Saharan cultures, at least composed by those who have grown up in them and have tended to write about them with intimate familiarity and sympathy. Indeed, it has been only in the last five years that the first anthology devoted to sub-Saharan ethics has appeared (Murove, 2009). The following bases discussion of *ubuntu* and African conceptions of the good life principally on this fresh body of anthropological, sociological, and philosophical works written by African scholars and those who have lived in the sub-Saharan region.

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As Desmond Tutu, South Africa's renowned Nobel Peace Prize winner, remarks of southern Africans, "When we want to give high praise to someone, we say *Yu u nobuntu*; Hey, so-and-so has *ubuntu*" (1999, 31). For many indigenous black cultures and those scholars influenced by them, the more one displays *ubuntu*, that is, develops human excellence, the better one's life. Implicit in such a conception of the good life is a basic distinction between two possible ways of living, namely, an animal life and a human one, where one ought to live a genuinely human way of life, and to eschew living in the manner of a beast or subhuman. There are facets of human nature that are valuable for their own sake and that are missing in characteristic animal lives, and one's basic goal should be to realize those facets. As Mogobe Ramose, who has grounded a philosophy on *ubuntu*, says, 'To be a human be-ing is to affirm one's humanity by recognising the humanity of others and, on that basis, establish humane relations with them. . .. One is enjoined, yes, commanded as it were, to actually become a human being' (1999, 52).

If a person failed to do so, then many Africans would say of him, "He is not a person" or even "He is an animal" (Bhengu, 1996, 27). By these statements they would not mean that one who is living poorly has literally lost his humanity, so that, say, he would no longer be a bearer of ▶ human rights. Instead, they would be claiming that, although one is biologically or essentially a human being, one who does not live well has failed to develop the valuable aspects of his human nature (Mnyaka & Motlhabi, 2005, 224–226, 236).

Note how a ▶ self-realization ethic of this sort differs from other conceptions of the good life or ▶ meaning in life, particularly those popular among contemporary psychologists and philosophers in the West. Most strikingly, it does not focus on hedonic considerations such as an individual's ▶ pleasure or satisfaction. Instead of deeming living well to be a subjective matter, that is, a mere function of one's positive mental states, an *ubuntu* conception of the good life is much more objective, implying that there is a way of life that one should seek out and that one *ought to* like and be pleased by (even if one would not, given the current state of one's character).

An *ubuntu* conception of living well is much more like classic Greek ideals associated with ▶ *eudaimonia*. For example, recall that, according to ▶ Aristotle in the *Nicomachean Ethics*, one ought to focus on developing what is characteristic of human nature, which he maintains is a matter of realizing one's capacities to be rational. One can be rational in two dimensions, for Aristotle, namely, practically and theoretically. In the practical sphere, one realizes oneself by acting justly toward others, participating in politics, being a good friend, and regulating one's appetites and emotions. In the theoretical sphere, one realizes oneself by engaging in intellectual reflection, and, at the pinnacle, by doing philosophy.

A typically sub-Saharan approach to ▶ self-actualization differs from Aristotle's and other influential Greek approaches. The latter tend to maintain that there is a significant self-regarding element to self-realization, that is, a facet, such as theoretical contemplation or self-control, that does not essentially involve other persons (although it often might in practice). In contrast, according to many salient sub-Saharan worldviews, realizing oneself is exhausted by exhibiting other-regard (Metz & Gaie, 2010, 275; Mnyaka & Motlhabi, 2005, 222–228). Many black African societies sum up one's proper basic aim in life with phrases such as "A person is a person through other persons" or "I am because we are" (e.g., Mkhize, 2008, 40; Mnyaka & Motlhabi, 2005, 218; Tutu, 1999, 35). Although these maxims have descriptive connotations, to the effect that human beings are interrelated and even interdependent, they also include prescriptive senses. Basically, they instruct one to become a real person or to realize one's true self, and to do so solely by relating to other people in a certain way. Self-realization, in the dominant swathe of the African tradition, cannot be achieved apart from others.

More specifically, standard sub-Saharan conceptions of the good life cash out self-realization strictly in terms of *communal*, *harmonious*, or

cohesive relationships with others. As Augustine Shutte, one of the first professional moral philosophers to seriously engage with *ubuntu*, says, "Our deepest moral obligation is to become more fully human. And this means entering more and more deeply into community with others. So although the goal is personal fulfilment, selfishness is excluded" (2001, 30; Mnyaka & Motlhabi, 2005, 221–228; see also Tutu, 1999, 35). Hence, although traditional African ethics clearly focuses on self-realization, it is also well understood as communitarian in nature.

▶ Community or harmony in sub-Saharan thought is not well understood as just any social grouping. To enter into, or more generally to prize, community (harmony) is not merely to join some society or to adhere to whatever ▶ norms it may uphold. Instead, it is an ideal form of interaction between people, a type of group that people ought to strive to create and to maintain. Specifically, community (harmony) in sub-Saharan ethics is usefully analyzed as the combination of two logically distinct kinds of interaction, identifying with others and exhibiting ▶ solidarity with them (the following definitional remarks borrow from Metz, 2011, 537–540).

To identify with each other is largely for people to think of themselves as members of the same group, that is, to conceive of themselves as a "we," for them to take pride or feel shame in the group's activities, as well as for them to engage in joint projects, coordinating their behavior to realize shared ends. For people to fail to identify with each other could go beyond mere alienation and involve outright division between them, that is, people not only thinking of themselves as an "I" in opposition to a "you," but also aiming to undermine one another's ends.

To exhibit ▶ solidarity is for people to engage in mutual aid, to act in ways that are reasonably expected to benefit each other. Solidarity is also a matter of people's ▶ attitudes such as emotions and motives being positively oriented toward others, say, by sympathizing with them and helping them for their sake. For people to fail to exhibit solidarity would be for them either to be uninterested in each other's flourishing or, worse, to exhibit ill will in the form of hostility and cruelty.

While identity and solidarity are separable, characteristic African thought includes the view that, ideally, they should be realized together. That is, communal or harmonious relationship with others, of the sort that confers *ubuntu* on a person, is well construed as the combination of identity and solidarity. One will find implicit reference to both facets in typical prescriptions about how to orient one's life, including the following:

> Individuals consider themselves integral parts of the whole community. A person is socialised to think of himself, or herself, as inextricably bound to others. . . .*Ubuntu* ethics can be termed anti-egoistic as it discourages people from seeking their own good without regard for, or to the detriment of, others and the community. *Ubuntu* promotes the spirit that one should live for others (Mnyaka & Motlhabi, 2005, 222, 224).

> If you asked *ubuntu* advocates and philosophers: What principles inform and organise your life? What do you live for? What motive force or basic attitude gives your life meaning? What gives direction and coherence to your life?; the answers would express commitment to the good of the community in which their identities were formed, and a need to experience their lives as bound up in that of their community (Nkondo, 2007, 91).

To see some of the appeal of grounding self-realization on such a communitarian conception of interaction with others, consider that identifying with others can be spoken of in terms of sharing a way of life and that exhibiting solidarity toward others is naturally understood as caring about their quality of life. And the union of sharing a way of life and caring about others' ▶ quality of life is basically what English speakers mean by a broad sense of "friendship" or even "▶ love." Hence, one major strand of traditional African culture places friendly (loving) relationships at the heart of how one ought to live. Speaking of an African perspective on ethics, Tutu remarks: "Harmony, friendliness, ▶ community are great goods. Social harmony is for us the *summum bonum* – the greatest good. Anything that subverts or undermines this sought-after good is to be avoided like the plague" (1999, 35).

Concretely, what is involved in realizing oneself through communal or harmonious relationships with others? What is it to exhibit *ubuntu* by being a friendly person? It is characteristic of the sub-Saharan tradition to answer these questions by appealing to a variety of ▶ virtues (e.g., Gyekye, 2010; Mnyaka & Motlhabi, 2005; Paris, 1995, 129–156). Specifically, one exhibits human excellence insofar as one displays character traits such as politeness, kindness, sympathy, compassion, benevolence, ▶ altruism, compassion, sacrifice, forgiveness, mercy, and ▶ tolerance.

In sum, then, to have *ubuntu* is to have humanness or to exhibit self-realization, which, in turn, is constituted by displaying virtues that are ways for an individual to prize communal or friendly relationships with other persons. Although this conception of the ▶ good life is obviously meant to guide individuals in the choices they make, it also has tended to influence societal decision-making in precolonial African societies. In addition, it has been common for contemporary intellectuals and policy makers below the Sahara to appeal to such a view of how to live when thinking about how to organize public and other large-scale institutions (see, e.g., Eze, 2010; Murove, 2009; Nkondo, 2007). After all, if political and economic institutions ought to be designed to improve people's lives, then it is natural to structure them in ways likely to foster *ubuntu*, a plausible understanding of how best to live.

Consider two examples from a South African context. First, an *ubuntu* ethic was largely responsible for the formation of the Truth and Reconciliation Commission that famously dealt with apartheid-era crimes in a non-retributive manner (Tutu, 1999). Second, South Africa's Constitutional Court appealed to the value of *ubuntu* in order to judge the death penalty to be inconsistent with the right to life and value of ▶ human dignity adumbrated in its Bill of Rights (Cornell & Muvangua, 2011, 65–94).

As noted at the start of this entry, while *ubuntu* as an ethical perspective and way of life has been in existence for several hundred years among indigenous sub-Saharan peoples, written scholarship on the topic is new. Intellectuals and academics in Africa are working diligently to mine traditional sub-Saharan cultural resources for promising ideas about how to organize their societies and lead their individual lives in a postcolonial setting. Ideals associated with *ubuntu* are one major source of such inspiration, and not merely to those living below the Sahara desert. There is good reason for the present encyclopedia to include an entry on *ubuntu* – for the values associated with it should be of interest to global readers. Is the quality of life enhanced merely by people feeling good, as per a typical contemporary Western approach, or is it rather, or at least in the main, promoted by people exhibiting virtues that are ways of being a loving person?

Cross-References

▶ Plato
▶ Vitality, Community, and Human Dignity in Africa

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UK

▶ United Kingdom (UK)

Ulcerative Colitis

▶ Health-Related Quality of Life and Inflammatory Bowel Disease

Ulcerative Colitis and Crohn's Disease Health Status Scales (UC/CD HSS)

▶ Health-Related Quality of Life and Inflammatory Bowel Disease

ULF Surveys

▶ Living Conditions, Swedish Surveys

Uncertainty

▶ Anxiety
▶ Sensitivity Analysis

Uncertainty of an Estimate

▶ Mean Square Error of Survey Estimates

Undercounted Populations

▶ Marginalized Communities

Underemployment

▶ Part-Time Work

Undernutrition

▶ Malnutrition

Underrepresented Populations

▶ Marginalized Communities

Underworked

▶ Labor Markets and Underemployment

UNDP

▶ United Nations Development Programme

Unease

▶ Anxiety

Unemployment

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Synonyms

Layoff; Out of work; Redundancy and work; Work displacement

Definition

Unemployment is a state where a person wants to work but is unable to find a job. According to the formal OECD definition, the unemployed comprise all persons above a specified age, who during the reference period (typically a week or a month) were not in paid employment or self-employment, available for work, and actively seeking work. An important distinction is between long-term unemployment (with a duration of 6 months or more) and short-term unemployment. Unemployment is different from nonemployment, as the latter includes those not available for, and seeking, work, including students and retirees.

Description

There is universal agreement, backed up by decades of empirical research covering many countries and time periods, that unemployment, in particular if prolonged, is detrimental to quality of life. At the same time, the perceived reasons for such an adverse effect, as well as the assessment of its magnitude, differ. Whereas economists have emphasized the underutilization of a productive factor and the loss of income, psychologists and sociologists have stressed the negative consequences of unemployment on psychological well-being, health, and social capital. A pathbreaking study along the latter line is Jahoda, Lazarsfeld, and Zeisel's [1933 (1975)] work on the "Unemployed of Marienthal." Recent advances in the measurement and scientific understanding of happiness have allowed to integrate both views using people's own judgment as weights (Diener & Suh, 1997). Applied studies in this area based on large representative longitudinal household surveys have produced two key findings: first, the overall cost of unemployment in terms of reduced life satisfaction is substantial (about half a standard deviation), and second, the nonpecuniary costs of unemployment exceed the pecuniary ones by far (e.g., Winkelmann & Winkelmann, 1998).

In addition, there is persuasive evidence that unemployment indeed causes low life satisfaction, rather than the other way around, or third confounding variables causing both, as would be the case if, for example, differences in mental or physical health were left unaccounted for. While randomized controlled trials are obviously precluded in this area of research, evidence from carefully matched prospective longitudinal studies as well as from "natural experiments," such as mass layoffs and plant closures, has confirmed the initial findings from cross-sectional data alone.

In order to better understand the nature of this adverse relationship, scholars have explored the heterogeneity of the effect across groups of people. Some people are much more negatively affected than others. Research has investigated both internal moderator variables (for instance, personality and religiosity) and external ones. Among the internal ones, a putative moderator of the effect of unemployment on life satisfaction is the duration of unemployment. However, the evidence is mixed and adaptation to unemployment, if it happens, seems to be slow and incomplete (Clark, 2006).

Among the external circumstances, the unemployment rate in the local labor market has been shown to act as a powerful moderator. In particular, unemployment seems to "hurt less" the more prevalent it is (Clark, 2003).

One possible reason is that higher local unemployment weakens the work norm and the social stigma associated with unemployment. Lalive and Stutzer (2004) measure social norms regarding work from election outcomes and show that the psychological cost of unemployment is particularly large in regions where the work norms are strongest. Social norms and expectations may also explain why women tend to be less affected by unemployment than men. Interestingly, researchers have also established a negative association between levels of unemployment in a region or occupation and the well-being of those in employment for whom a higher unemployment rate means a reduction in job security (Luechinger, Stutzer, & Meier, 2010). For a society as a whole, these "spillover" effects can outweigh the direct cost born by those in actual unemployment, simply because the number of employed persons tends to be much larger than the number of unemployed persons.

There is also a large literature on the linkage between unemployment and quality of life that focuses on pathways rather than overall life satisfaction. Among those, the association between unemployment and health and life expectancy has attracted most attention (Kuhn, Lalive, & Zweimüller, 2009; Wilkinson & Pickett, 2009). In addition, unemployment has been associated with higher crime rates, suicide, drug abuse, marital instability, and long-term harm for children and young people growing up in unemployed households. Factors that have been shown to contribute to a reduced psychological well-being of the unemployed include social exclusion, loss of self-reliance of the individual, and deterioration of self-confidence.

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Unemployment and Divorce

▶ Job Loss and Family Dissolution

Unemployment and Separation

▶ Job Loss and Family Dissolution

Unemployment and Suicide

▶ Social Integration and Suicide in Norway

Unequal Probability Sampling

▶ Probability Proportional Sampling

UNESCO Framework for Cultural Indicators

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Definition

The framework for cultural statistics (FCS) is a comprehensive classification instrument for measuring the economic and social dimensions of culture based upon the concept of the culture cycle model.

Description

The FSC provides conceptual foundations and common understanding of culture for the integrated measurement of economic and social aspects of culture. The original idea stemmed from the recommendations of the UNESCO conference of European ministers of culture held in Helsinki in 1972. In 1974, the first substantial meeting held in Geneva decided the main considerations to design the framework for cultural statistics: including cultural phenomena as a whole to serve the needs for planning, controlling, and, by extension, connecting with cultural policies, including both the economic and social contribution of culture, and linking this framework with related statistical systems. Since then, through the efforts of the joint study groups and UNESCO working group, the first UNESCO Framework for Cultural Statistics was established in 1986 (UNESCO, 1986).

Cultural Categories and Functions in the 1986 FCS

The 1986 framework was built upon cross matrices indicating each of the selected culture fields called "cultural categories" with its five "functions" in regard to creation/production, transmission/dissemination, reception/consumption, preservation/registration, and participation. The ten selected "cultural categories" are numbered 0–9 and subcategories are as follows (UNESCO, 1986):

- **Category 0: Cultural heritage**
  - 0.1: Historical monuments
  - 0.2: Archeological heritage
  - 0.3: Museological heritage
  - 0.4: Archival heritage
  - 0.5: Other forms of cultural heritage
- **Category 1: Printed matter and literature**
  - 1.1: Books and pamphlets
  - 1.2: Newspapers and periodicals
  - 1.3: Library services
- **Categories 2 and 3: Music and the performing art**
  - Category 2: Music
  - 2.1: Live music
  - 2.2: Music theater
- **Category 3: Performing art**
  - 3:1: Drama theater
  - 3.2: Dance
  - 3.3: Other performing arts (circus, pantomime, etc.)
- **Category 2 and 3 common issues: Audio and audiovisual records**
- **Category 4: Visual arts**
  - Group A. 4.1: Painting
  - 4.2: Sculpture
  - 4.3: Graphic arts
  - 4.4: Art handicrafts
  - 4.5: Other forms of visual arts
  - Group B. 4.6: Photography
  - 4.6.1: Creative–artistic photography
  - 4.6.2: Other photography
- **Categories 5 and 6: Audio and audiovisual media**
  - Category 5: Cinema and photography
  - 5.1: Cinema
  - 5.2: Photography
  - Category 6: Radio and television
  - 6.1: Radio
  - 6.2: Television
- **Category 5 and 6 common issues: Video**
- **Category 7: Sociocultural activities**
  - 7.1: Associative life
  - 7.2: Multipurpose sociocultural facilities
  - 7.3: Sociocultural practices

7.3.1: Individual practices
7.3.2: Family life
7.3.3: Community life
7.4: Intercategory data

- **Category 8: Sports and games**
- **Category 9: Environment and nature**

9.1: Natural environment
9.2: Urban environment (quality of life in the urban setting)

Dividing the cultural fields into ten categories was difficult because the categories had, to some extent, connection to each other and overlapped between some of the categories. For example, category 2 "Music" and category 3 "Performing art" were so hard to separate that their data elements merged together in the final version, using a bridge subcategory "Audio and audiovisual records," addressing the common issue of the categories. Also, since the advent of video (common issues between category 5 and 6), cinema and television had more affinity with each other, while category 5.2 "Photography" was assimilated to category 4 "Visual arts."

Also, the functional classification based on the usage of culture helped FCS collect the data specifically. Overall, it was divided into 5 categories: creation/production, transmission/dissemination, reception/consumption, preservation/registration, and participation. However, these functions did not apply to all the cultural categories. For example, the function "creation/production" had been considered irrelevant to category 0 "Cultural heritage" so that was replaced by "registration/protection." For category 1.2, "Newspapers and periodicals," the functions "creation" and "participation" were discarded due to the lack of available statistics. Also, for category 7, "Sociocultural activities," it was given its own classification rather than using the established functional classification. Thus, in common with the cultural categories, flexibility of the functional classification was, to some degree, allowed in the framework.

The 1986 FCS had significance as a first step for building a framework designed for cultural statistics. However, even though it was a great step to gain a foothold for cultural statistics, whole processes were developed by UNESCO member states who were largely from Europe, a developed region. Further, cultural category and function were based on a formal and fixed notion of culture rather than reflecting a new concept of culture, having developed through the year. Also, the framework still needed a firm conceptual foundation and methodology for the statistics comparison internationally. Therefore, in 2009, the FCS has been revised to reflect the current and diverse perspectives on culture and to include developing countries for the comprehensive understanding of cultural statistics.

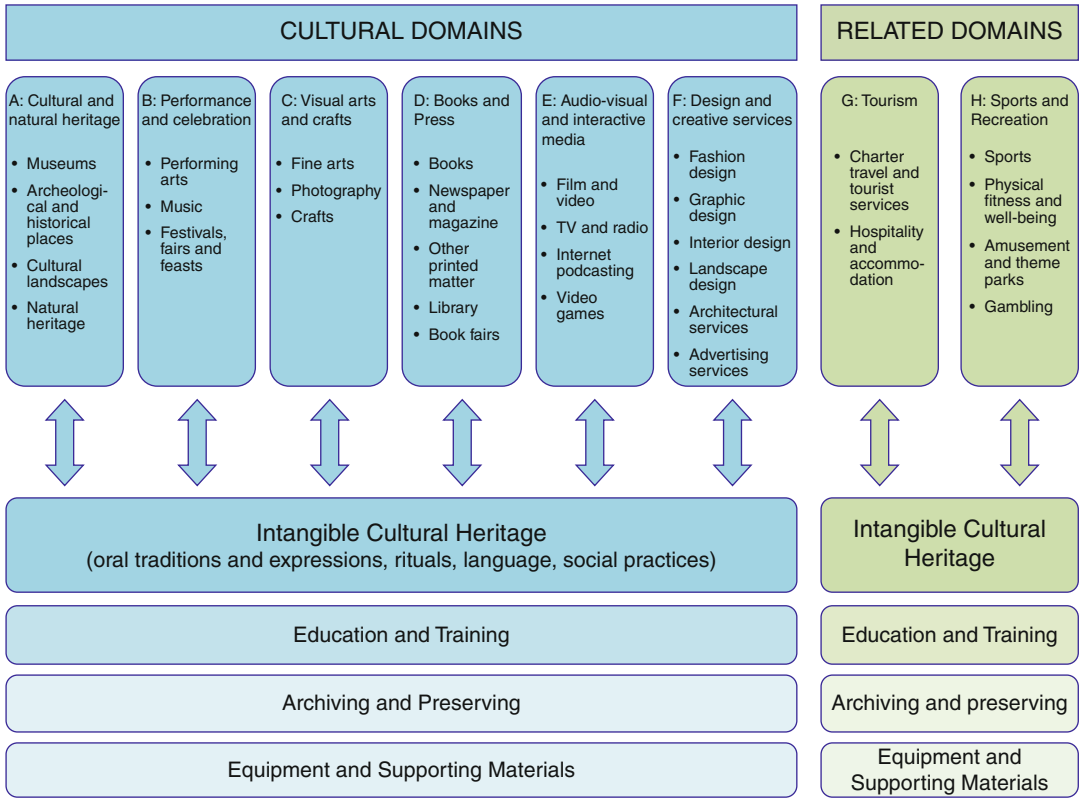
The Framework Revision

The 2009 FCS focused on developing a conceptual foundation that apprehended the full range of cultural expression. The revised framework aimed at (1) helping member states exploit their cultural statistics but with common benchmark to maximize international and national comparability of their own data; (2) encouraging a more comprehensive approach, addressing broad cultural expression between all the activities of the cultural sector, public, and private, as well as a broader view of measurement from economic aspects to social ones; (3) incorporating currently available international classification systems such as the International Standard Industrial Classification (ISIC), the Central Product Classification (CPC), and the Harmonized System (HS) so as to support a wide range of use for systematizing the data collection and dissemination at the international and national level (UNESCO, 2009).

Cultural Domains

The 2009 FCS defined "culture" as the set of distinctive spiritual, material, intellectual, and emotional features of society or a social group and that it encompasses, in addition to art and literature, lifestyles, ways of living together, value systems, traditions, and beliefs (UNESCO, 2001, 2009).

Based on the above definition, the FCS conceptualized the framework for cultural statistics domains. A domain encompasses all related cultural activities, especially design and advertising

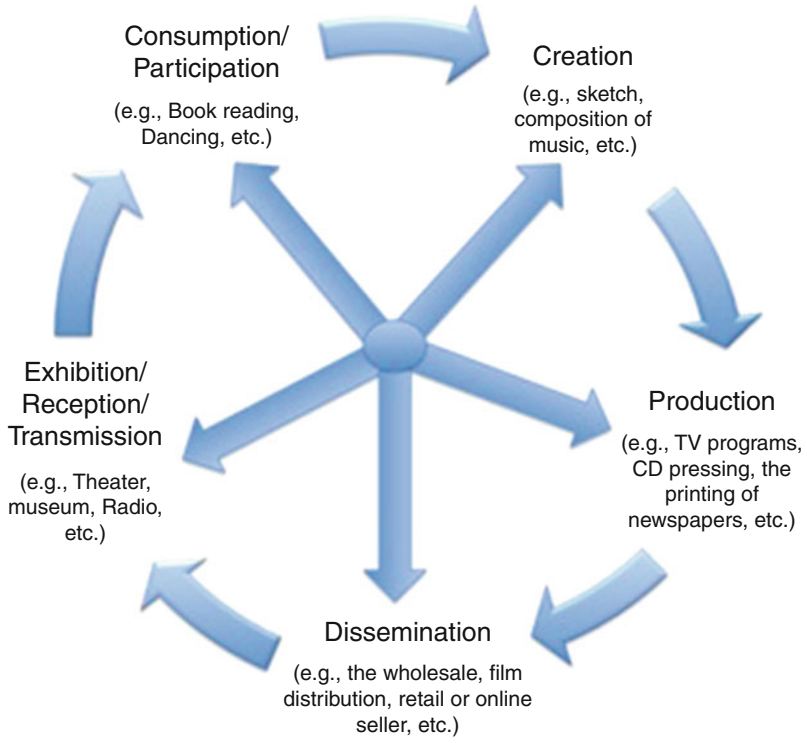


UNESCO Framework for Cultural Indicators, Fig. 1 Framework for cultural statistics domains, compiled from data provided in UNESCO (2009, p. 24)

as a creative industries; it indicates formal and economic activities, as well as informal and social ones.

The FCS cultural domains are represented as follows (illustrated in Fig. 1):

- Cultural domains
  - A: Cultural and natural heritage
    - Museums
    - Archeological and historical places
    - Cultural landscapes
    - Natural heritage
  - B: Performance and celebration
    - Performing arts
    - Music
    - Festivals, fairs, and feasts
  - C: Visual arts and crafts
    - Fine arts
    - Photography
    - Crafts
  - D: Books and press
    - Books
    - Newspaper and magazine
    - Other printed matter
    - Library
    - Book fairs
  - E: Audiovisual and interactive media
    - Film and video
    - TV and radio
    - Internet podcasting
    - Video games
  - F: Design and creative services
    - Fashion design
    - Graphic design
    - Interior design
    - Landscape design
    - Architectural services
    - Advertising services
- Related domains
  - G: Tourism
    - Charter travel and tourist services



UNESCO Framework for Cultural Indicators, Fig. 2 Culture cycle model, compiled from data provided in UNESCO (2009) and Culture Cycle (2012)

  - Hospitality and accommodation
    H: Sports and recreation
  - Sports
  - Physical fitness and well-being
  - Amusement and theme parks
  - Gambling
- Transversal domains
    Intangible cultural heritage
    Education and training
    Archiving and preserving
    Equipment and supporting materials

As explained, based on the definition of culture stated in UNESCO's Universal Declaration on Cultural Diversity (2001), "cultural domains" included all cultural activities under the six sectors, including not only traditional activities (e.g., music and film) but also creative industries (e.g., design and advertising). In addition, "related domains" covered broader culture linked to the "recreational or leisure" activities or industries such as sports or tourism, rather than genuine arts and culture. Also, the framework, especially, developed four "transversal domains" which are essential for cultural statistics to measure the extensive cultural expression since they can be applied across cultural and related domains.

Culture Cycle

Culture cycle model is also a fundamental concept of the 2009 FCS. The culture cycle illustrates all of the different phases of the cultural processes and their relationships. This model, beyond a grouping of cultural domains, approaches how cultural processes such as cultural goods, service, and, by extension, consumption and participation occur and proceed. Also, the culture cycle is flexible rather than hierarchical; hence, each cultural form may show different interaction between the different cultural phases. The culture cycle includes five stages: creation, production, dissemination, exhibition/reception/transmission, and consumption/participation (Culture Cycle, 2012; UNESCO, 2009) (illustrated in Fig. 2).

Measuring the Economic and Social Dimension

The 2009 FCS incorporates the use of currently available international statistical classification

for data comparability internationally regarding culture. While the priority aim of existing surveys and data collection instruments may not be the cultural sector solely, they include many data of cultural sector and help the FCS measure and analyze the cultural production and related activities. To measure the economic and social dimension of culture, usable codes related to cultural activities, goods, services, occupations, or practices were derived from the existing classification systems and rearranged in accordance with cultural domains and functions from the culture cycle. A detailed classification system list used in the 2009 FCS is as follows:

- International Standard Industrial Classification (ISIC 4): identification of cultural productive activities
- Central Product Classification (CPC 2): identification of cultural goods and services
- Harmonized Commodity Description and Coding System 2007 (HS 2007): identification of international trade of cultural goods
- Standard International Trade Classification Revision 4 (SITC 4): identification of international trade of cultural goods with HS codes
- Extended Balance of Payments Services Classification System (EBOPS): identification of international trade of cultural services
- International Standard Classification of Occupations (ISCO 08): identification of cultural occupations based on the *culture cycle* within the FCS cultural domains
- International Classification of Activities for Time-Use Statistics (ICATUS): identification of social dimension of culture based on the cultural consumption/participation

As shown above, the 2009 FCS makes efforts at reflecting a wide range of cultural activities, even intellectual property issues and cultural identity. It provides a fundamental structure to the countries that want to measure their cultural production and activities, as well as to compare the data to other nations. Nonetheless, the above classification systems have contributed to the development of methodology and the measurement of all the cultural phases; there were limitations in use of those since they have not been established for solely focusing on culture and related activities. For example, EBOPS, originally, does not indicate culture as a separate category; further, a list of codes from the existing classifications are sometimes not enough to be distinguished based on the cultural domains of the 2009 FCS. Also, measuring the social dimension of culture still remains a challenge. Methodological development and elaboration are needed in order to build comprehensive cultural indicators, which is internationally comparable. In addition, looking into other dimensions of culture such as a linkage between culture and the environment or culture and well-being will be needed so as to further develop the FCS.

Cross-References

- ▶ Cultural Capital
- ▶ Cultural Indicators
- ▶ UNESCO World Culture Report
- ▶ United Nations Educational, Scientific and Cultural Organization (UNESCO)

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UNESCO World Culture Report

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Synonyms

Cultural development; Cultural diversity; World culture measurement

Definition

This is a set of two reports published in 1998 and 2000. It ranges over a series of worldwide culture-related issues such as cultural policy, diversity, heritage, information, and communication technology (ICT).

Description

The World Commission on Culture and Development (WCCD), established in 1992, felt that it was necessary to provide worldwide analytical reports, dealing with relationship between culture and development. Accordingly, the first World Culture Report titled "Culture, Creativity and Markets" was published in 1998. The purpose of a World Culture Report is to: (1) survey recent trends in culture and development; (2) monitor events affecting the state of cultures worldwide; (3) construct and publish quantitative cultural indicators; (4) highlight good cultural practices and policies; and (5) analyze specific theme of general importance with policy suggestions. In this sense, it covers a wide range of cultural issues around the world, and supports analytical and quantitative thinking combined with various existing data and statistics on the relationship between culture and development. Also, each chapter is written by authors from many different cultures and countries so as to contribute to broad and interdisciplinary reports (Pérez de Cuéllar, 1995; UNESCO, 1998; UNESCO/UNRISD, 1997).

For example, the second World Culture Report was published in 2000 under the title of "Cultural diversity, conflict, and Pluralism." The report consists of 19 chapters, delving further into a series of issues relating to culture, cultural policy, and cultural pluralism. It addresses the culture indicators, reflecting the broad-range scope and aspects of world culture; further, it helps to consolidate the foundation of international framework on culture and development among policy-makers, economists, social scientists, or other specialists. The data were obtained from not only international and professional sources such as government data, but also directly from UNESCO Member States using special questionnaires. The culture indicator is divided into six categories and the details (UNESCO, 2000):

- Cultural activities and trends
  - Newspapers and books
  - Libraries and cultural paper
  - Radio and television
  - Cinema and film
  - Recorded music
- Cultural practices and heritage
  - Leading languages
  - Leading religions
  - National festivals
  - Folk and religious festivals
  - Most visited cultural sites
  - Most visited natural sites
  - World heritage sites
- Ratifications
  - UNESCO and International Labour Organization (ILO) cultural and labour conventions (1999)
  - United Nations Human Rights Conventions (1999)
- Cultural trade and communication trends
  - Trends in cultural trade
  - Distribution of cultural trade by type
  - Tourism flows
  - International tourism

  - Communication
  - New communication technology
- Translations
  - Translations and books in foreign languages
  - Translations by original language
  - Most frequently translated authors
- Cultural context
  - Education
  - Tertiary education abroad
  - Human capital
  - Demographic and health
  - Economic
  - Social security
  - Environment and biodiversity

In an effort to broaden the scope of the culture indicators, the World culture Report 2000 introduces multicultural areas under the category "Cultural practices and heritage," not presented in the indicators of the 1998 report. They represent: leading languages; leading religions; national festivals; folk and religious festivals; most visited cultural sites; and most visited natural sites. With those newly introduced indicators, the report provides comparative data in the field of culture and development, and contributes to intercultural contact and deep understanding of cultural pluralism.

Cross-References

► Cultural Development
► Cultural Indicators

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Unfocused Affective States

► Mood

UN-Habitat Urban Indicators

► World City Development Index: Global Urban Observatory

(Un)Happy Planet Index

► Happy Planet Index

Unified Theory

► Metatheory

Unionization Rate

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Synonyms

Membership trade unions

Definition

The unionization rate is the total membership of trade unions in a profession, sector, or nation, usually expressed as a percentage of all employees.

Description

An acceptable unionization rate is important for effective bipartite consultations between (con-)federations of trade unions and (con-)federations of employers-organizations or individual employers. An acceptable membership of employers and/or their willingness to communicate is obviously an additional condition. Such conditions are also required for effective tripartite consultations between national government and (con-)federations of employers and trade unions. In many nations unionization rates have been high or are still high, because unions can improve and protect the living conditions of employees, e.g., by demanding acceptable wages, adequate labor legislation, and social security. In some nations membership is obligatory for employees in specific professions, because employers have agreed to higher union members only. Such "closed shop" arrangements have become rather exceptional, because they are at variance with the principle of individual free choice.

Methodology see data source: International Labour Organization (ILO) and Amsterdam Institute for Advanced Labour Studies (AIAS).

Ratings

Amsterdam Institute for Advanced Labour Studies (AIAS) University of Amsterdam; http://www.uva-aias.net/208.

Cross-References

- ▶ Good Governance and Happiness in Nations
- ▶ World Bank Government Indicators

References

AIAS: Database on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts in 34 countries between 1960 and 2007 (ICTWSS). http://www.uva-aias.net/208

ILO: http://www.ilo.org/global/lang–en/index.htm (search)

Unipolar Scales

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Definition

Unipolarity and bipolarity of concepts are part of the formal properties of a survey item. Bipolar concepts should be measured by bipolar scales which have two opposite sides of the scales: positive to negative or active to passive. Response options in unipolar concepts/scales go from zero to positive or from zero to negative.

Description

Bipolarity and unipolarity are part of the formal properties of concept asked in a request for an answer. Bipolar concepts have two opposite sides. Scales in agreement with bipolar concepts have to measure two poles: positive to negative or active to passive. For instance, agree/disagree, satisfaction/dissatisfaction, and good/bad are bipolar concepts. Response options in unipolar scales go from zero to positive or from zero to negative. For example, frequencies or probabilities are measured by scales using never/always, not at all likely/very likely, etc.; they are all unipolar. If a bipolar scale is presented in a unipolar format, the provided scale for responses and the concept would not be in agreement; bias could be introduced as the scale is unbalanced favoring one side in the distribution; when researchers use unipolar scales for bipolar concepts, they assume some knowledge of the distribution of opinions in the population.

Saris and Gallhofer (2007) show how the choice of a bipolar or a unipolar scale affects

the distribution of answers. The authors analyzed the MTMM (Multi-trait multi-method) experiment conducted in the British pilot of the first round of the European Social Survey (ESS); in the experiment, three different formulations were used to ask about satisfaction with the "economy," satisfaction with the "national government," and satisfaction with "democracy."

In the first method, a 4-point bipolar scale (very satisfied/very dissatisfied) is used without a midpoint of the scale or a neutral category. In the second method, an 11-point bipolar scale with neutral category is used. In the third method, the bipolar scale is presented as a unipolar scale (not at all satisfied/very satisfied).

The distributions that they got using the pilot data were clearly different depending on the choice of unipolar or bipolar formulations and in the neutral option. The authors conclude that the third method seems to produce more "satisfied" respondents. This can be due to the fact that only one negative or neutral category has been provided and some people may shift their responses to the positive side.

The choice of a bipolarity or unipolarity as one of the formal properties of a scale is closely linked to symmetry. For a bipolar scale to be unbiased, it is also required that it is symmetric, that is, that the same number of categories is offered in the negative and in the positive side. The neutral category is also normally suggested.

However, bipolar scales present a challenge in cross-national studies that translate a source questionnaire into many different languages. Zavala and Gallhofer (2012) showed that some qualifiers that were used in the English source questionnaire in the ESS Round 5 had no equivalent bipolar term in some languages. In Spanish, Catalan, and Finnish translations, there was no equivalent formulation to successful and unsuccessful in a bipolar range. In order to get a bipolar concept, they used adjectives such as effective/ineffective or well/bad. In some cases, this changes the concept asked affecting the equivalence of items and harms cross-national comparability.

Cross-References

- ▶ Likert Scale
- ▶ Measurement Methods
- ▶ Response Bias(es)

References

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United Kingdom (UK)

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Synonyms

UK

Definition

The United Kingdom, formally known as the United Kingdom of Great Britain and Northern Ireland, is a sovereign state located off the northwest coast of continental Europe and is composed of four constituent countries, England, Northern Ireland, Scotland, and Wales.

Description

An Overview of UK Quality of Life

The United Kingdom (UK) is an advanced industrial sovereign state that is composed of four constituent countries – England, Northern Ireland, Scotland, and Wales – that collectively have a generally accepted good quality of life. It is listed as having a "very high human development"

level by the UN Human Development Index, with a rank of 28th and a score of 0.863. The 2011 uSwitch Quality of Life Index however rates the UK as having the worst quality of life in Europe, due to a combination of high living costs, a poor ▶ work-life balance, and low government spending on health care (11.2 % of GDP) and education (5.36 % of GDP). The poor rating was also attributed to higher than average household energy bills than other European countries at £1,273 a year, along with the highest food and diesel prices, and higher than average working hours at 36.4 h a week, a late retirement age of 63, and lack of holidays at 28 days a year.

Despite the poor rating, the UK consistently ranks high on other global indices. It has a highly globalized economy, ranked 14th on the KOF index of globalization, with a 2011 GDP per capita of $39,604 (globally ranked 20th) and a GDP per capita PPP of $35,974 (globally ranked 17th). Income inequality remains a major concern for the UK as working-age income equality has risen faster between 1975 and 2008 in the UK than any other OECD country. Median gross annual earnings for full-time employees in 2011 were £26,200, with £28,400 for men and £22,900 for women (Office for National Statistics [ONS], 2011). The unemployment rate between 2003 and 2010 has averaged between 4.7 % and 7.8 %; however, between March and May of 2012, the unemployment rate averaged 8.1 % due to the impact of the recession (ONS, 2012a). Estimates from 2009 note that 36.9 % of the population aged 25–64 have obtained a tertiary level of education.

Based on the 2011 Census for England and Wales (ONS, 2012b) as well as Northern Ireland (Northern Ireland Statistics and Research Agency [NISRA], 2012), and population projections for Scotland, the UK's population in 2011 stood at approximately 63.1 million. This is the highest level the population has ever been in the UK. England comprised the largest population with approximately 53.0 million people (84 % of the UK population), followed by Scotland with approximately 5.2 million (8.2 % of the UK population), Wales with approximately 3.1 million people (5.0 % of the UK population), and Northern Ireland with approximately 1.8 million people (2.8 % of the UK population). The population is aging, with 1 in 6 persons over the age of 65 in England, Wales, and Scotland (General Register Office of Scotland, 2012; ONS, 2012b) and 1 in 7 persons over the age of 65 in Northern Ireland. It is estimated that by 2050, 1 in 4 persons will be over the age of 65 in the UK (Cracknell, 2012). This had led to concerns of providing quality medical care and benefits to an aging population given the costs involved. Currently, 65 % of the Department for Work and Pensions (DWP) benefit expenditure is directed to those over the working age, representing 1/7th of all public expenditure (Cracknell, 2012). The UK has a mixed public and private health-care system, with publically funded health care, paid for through general taxation, being guaranteed to all UK permanent residents at the point of need through the National Health Service within each constituent country. As the population ages, it will become increasingly difficult to continue to provide the same level of benefits and health-care services to the elderly population in the future unless efficiencies are found or revenue increased. The alternative is to decrease benefits and services in order to reduce costs, which has implications for future elderly quality of life in the UK.

Birth rates play an important role in trying to decrease the impact of an aging population. In 2011 there were 65.6 live births per 1,000 women in England and Wales, one of the highest levels in decades (ONS, 2012c). This coincides with substantial levels of international migration to the UK, with an estimated 250,000 persons having immigrated to the UK in 2011 – the highest level since 2005 (ONS, 2012d). In 2010, 11.3 % of the UK population identified as foreign-born, higher than the EU average of 9.4 %. Immigration remains a polarizing issue in the UK, with large majorities of the British population consistently opposing immigration since the 1960s and stating a general preference for reduced international migration in 2009–2010 (Blinder, 2012).

▶ Poverty rates in the UK remain a key concern. In 2010/2011, 27 % of children were in

households in the UK with incomes below 60 % of contemporary median net disposable household income after housing costs along with 21 % of working age adults and 14 % of pensioners. ▶ Crime in England and Wales has been steadily decreasing since 1995 and is now at record low levels, with 9.6 million offenses in 2010/2011 (Chaplin, Flatley, & Smith, 2011). This corresponds with a decrease in the percentage of adults in England and Wales who believed that there was "a little more" or "a lot more" crime in the country since 1996, from 75 % to 60 % (Chaplin et al., 2011); a decrease in perception of crime since the 1990s was also recorded in Scotland. Despite these decreases there is still a large gap between perceptions of crime and actual incidents of crime.

Attitudes Surveys in the UK

Understandings of quality of life have been implicitly measured in Great Britain since 1983, when the British Social Attitudes Survey (BSA) was first conducted by the National Centre for Social Research. A similar survey was conducted for Northern Ireland in 1989, 1990, and 1991, and since devolution in 1999, a Scottish Social Attitudes Survey (SSA) has also been conducted. The surveys are designed to measure and understand changes in social patterns and attitudes over time and cover a wide range of subjects. The surveys utilize a multi-stage stratified random sample (approximately 3,300 people for the BSA and 1,500 for the SSA) and include a series of "core" questions as well as questions that explore a specific range of subjects that change annually and which are undertaken through computer-assisted personal interviewing and self-completion of certain sections. The surveys are not designed to provide an index score, but rather to measure attitudes related to specific questions. Access to the full list of questions and data for the BSA can be found at www.britsocat.com and for the SSA at www.scotcen.org.uk/series/scottish-social-attitudes.

The goal of the surveys is not to explicitly measure quality of life; however, a variety of the questions relate to quality of life issues. For example, in the 2008 BSA Survey, participants were asked to rank on a scale of 1 to 10, with 10 being the most satisfied, "All things considered, how satisfied are you with your life as a whole nowadays?" Approximately 30 % of respondents ranked their life satisfaction at an 8, followed by 19 % at a 7, 13 % at a 9, and 12 % at a 10, while less than 4 % ranked their life satisfaction at a 3 or lower. Other questions relate to the work-life balance, such as "In your free time, how often do you find yourself thinking about work?" to which 30 % of respondents in 2007 said "Sometimes," followed by 26 % who said "Never," while only 8.21 % said "Very often." There are also questions related to perceptions of health, such as "How is your health in general for someone of your age?" to which 42 % responded "Fairly good" compared to 35 % who responded "Very good" followed by 16 % who said "Fair," 5 % who said "Bad" and 2 % who said "Very bad" in 2010. The distribution of answers over time for this question has not significantly varied since it was first asked in 1999. Overall, the varied range of questions and the longevity of the surveys are useful for understanding implicit perceptions of quality of life over time.

Well-Being in the UK

In November of 2010, the Office for National Statistics (ONS) began the Measuring National Well-being Programme and subsequently began a consultation process on the development of a series of potential domains and indicators for the measurement of well-being in the UK. The goal of the program is to "develop and publish an accepted and trusted set of National Statistics that helps people to understand and monitor national well-being" (Beaumont, 2011, p. 1). In July of 2012, the First Annual ONS Experimental Subjective Well-being Results were published from well-being related questions included in the Integrated Household Survey (IHS) and the Opinions and Lifestyle Survey (OPN) and were collected through the Annual Population Survey (APS). The APS is a UK-wide 12-month survey of 165,000 adults aged 16

United Kingdom (UK), Table 1 Subjective well-being distribution in the United Kingdom

United Kingdom					Percentages
	Very low	Low	Medium	High	Average
	(0–4)	(5–6)	(7–8)	(9–10)	(Mean)
Life satisfaction	6.6	17.5	49.8	26.1	7.4
Worthwhile	4.9	15.1	48.6	31.4	7.7
Happy yesterday	10.9	18.0	39.3	31.8	7.3
	Very high	High	Medium	Low	Average
	(6–10)	(4–5)	(2–3)	(0–1)	(Mean)
Anxious yesterday	21.8	18.1	23.5	36.6	3.1

Source: ONS, 2012e

and over. The large sample size allows for the analysis of subgroups of the population and at various spatial scales.

Four overall monitoring questions were included in the survey and respondents were asked to rank them on a scale of 0 to 10, where 0 is "not at all" and 10 is "completely" (ONS, 2012e):

- Overall, how satisfied are you with your life nowadays?
- Overall, to what extent do you feel the things you do in your life are worthwhile?
- Overall, how happy did you feel yesterday?
- Overall, how anxious did you feel yesterday?

These questions were designed to combine the "evaluative" (self-reflection), "eudemonic" (sense of meaning/purpose in life), and "experience" (positive and negative experiences) approaches to develop an overall understanding of subjective well-being. The overall results indicate a fairly high average level of quality of life, with a 7.4 level of life satisfaction, 7.7 sense that things people do in their lives are worthwhile, a 7.3 score for happiness yesterday, and an average 3.1 in terms of anxiousness yesterday (ONS, 2012e). Full results are in Table 1.

Analysis of the results of the survey questions highlights that women were slightly more satisfied with life than men (7.5–7.4) and thought what they did was more worthwhile (7.8–7.5); however, they also had higher rates of anxiousness (3.3–3.0) (ONS, 2012e). Younger and older individuals also had higher levels of satisfaction and worthwhile rates then middle-aged persons, while an inverse relationship was present for feelings of anxiousness with middle-aged persons feeling more anxious (ONS).

Subjective well-being was also analyzed by ethnic group. Results show that the "Black/African/Caribbean/Black British" group had much lower levels of life satisfaction (6.7 compared to the UK average of 7.4) and happiness (6.9 compared to the UK average of 7.3) than other ethnic groups, while higher than average levels of subjective well-being were consistently found in the "Indian" group (ONS, 2012e) (Table 2).

There was also slight variation across the constituent countries of the UK, with England and Wales consistently showing higher than average levels of subjective well-being compared to Scotland and Northern Ireland (ONS, 2012e). Particular pockets of low levels of subjective well-being were also present in certain areas, such as the West Midlands Metropolitan County in England, Torfaen and Blaenau Gwent in Wales, and North Ayrshire in Scotland. An interactive online map has been published that highlights differences in subjective well-being at the country/local authority/Province of Northern Ireland level in the UK and can be found here: www.neighbourhood.statistics.gov.uk/HTMLDocs/dvc34/well-being.html.

The subjective measurement of well-being is scheduled to be undertaken annually. The ONS currently has no plans to combine the measures into a single index. Full results of the First Annual ONS Experimental Subjective Well-being Results can be found here: www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-266404.

United Kingdom (UK), Table 2 Subjective well-being by ethnic group in the United Kingdom, 2011

	Life satisfaction	Worthwhile	Happy yesterday	Anxious yesterday
White	7.4	7.7	7.3	3.1
Gypsy, Traveler/Irish Traveler	..	..	..	..
Mixed/multiple ethnic groups	7.1	7.5	7.1	3.4
Indian	7.5	7.6	7.4	3.4
Pakistani	7.2	7.4	7.1	3.5
Bangladeshi	7.0	7.3	7.1	3.6
Chinese	7.4	7.4	7.3	3.3
Any other Asian background	7.4	7.6	7.4	3.4
Black/African/Caribbean/Black British	6.7	7.4	6.9	3.4
Arab	7.1	7.4	7.1	3.7
Other ethnic group	7.2	7.4	7.2	3.4

Source: ONS, 2012e

Conclusions

The UK generally has a high objective and subjective quality of life. This can be attributed to a range of factors, including high levels of average incomes, a stable democracy, relatively low levels of crime, a well-established public health-care system, and a fair work-life balance. Problems persist however in terms of income inequality, perceptions of immigration, and low levels of subjective well-being among certain ethnic groups as well as within certain localities.

Cross-References

- Birth Rate
- Crime
- Poverty
- Work-Life Balance

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United Nations Commission on Sustainable Development

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Brief History

The Commission on Sustainable Development (CSD) is a functional commission of the United Nations Economic and Social Council (ECOSOC) established in December 1992 to follow up on the implementation of ▶ Agenda 21 agreed at the United Nations Conference on Environment and Development (http://sustainabledevelopment.un.org/csd.html). Its formation was a significant milestone in the history of ▶ sustainable development that stemmed directly from the ▶ Brundtland Commission's call for the creation of a Board of Sustainable Development, chaired by the Secretary-General, to oversee "the many critical issues of sustainable development that cut across agency and national boundaries" (World Commission on Environment and Development, 1987). The actual body created was somewhat lower key.

The CSD's mandate is broadly "to monitor and review progress on the implementation of Agenda 21 at local, national and international level; to develop policy recommendations; and to promote dialog and build partnerships for sustainable development among governments, the international community, and major groups" (Chasek in Kaasa, 2007, p. 107). It is a somewhat "soft" institution in that it has no authority to enforce participation or make binding decisions (Andresen, 2007) and has no implementation budget.

Structurally, the CSD initially consisted of a 53-country decision-making bureau, an interagency council, a small permanently staffed secretariat, and a high-level advisory board (Bigg, 1995) and is based in New York (Yamin, 1999). Other agencies and external stakeholders are requested to support the commission's work as needed (Bigg, 1995; Dodds, Gardiner, Hales, Hemmati, & Lawrence, 2002). The Interagency Council for Sustainable Development was responsible for integrating Agenda 21 throughout UN bodies but was disbanded in 2000 following high-level reform (Dodds et al., 2002).

The commission meets annually for 2–3 weeks to review progress and hold dialogs. In 2004, a 2-year cycle of review and policy focused on specific themes (Andresen, 2007) such as human settlement and water and was introduced due to the unproductiveness of the single year cycle (Brown, 1998; Dodds et al., 2002). Additionally, the work of the commission and progress on Agenda 21 in general has been assessed in the special session of 1997 (UNGASS 97) and two major conferences on sustainable development in 2002 ("Rio + 10" in Johannesburg) and 2012 ("Rio + 20" in Rio de Janeiro). Twenty years after its creation, the commission is perhaps in its twilight years, following the decision taken at Rio + 20 to replace the commission with an "intergovernmental high-level political forum" (United Nations, 2012).

Activities/Major Accomplishments/ Contributions

Quality of life is fundamentally tied to the environment. The "worsening of poverty, hunger, ill health and illiteracy, and the continuing deterioration of the ecosystems on which we depend for our well-being" recognized in Agenda 21 and still recognizable in 2012 are two sides of the same coin. Brown (1998) made the importance of the CSD clear:

There are no alternative institutions that can achieve crucial CSD objectives. . . No other institution is examining the linkages among worldwide environmental, economic, and social trends nor attempting to determine what course corrections are needed at the global scale to achieve interrelated environmental, economic, and social goals.

The challenge facing CSD has been described as "awesome" (Weiss, Forsythe, & Coate, 2001, p. 275) due to the vast scope of Agenda 21 and the sheer number and diversity of entities it must attempt to integrate but without any mandatory power to do so (Yamin, 1999, p. 53). In the absence of authority, the commission's role has been one of guidance, facilitation, and coordination. It sets the agenda and provides a forum for governments and other stakeholders to identify and find solutions to problems enacting Agenda 21; provides guidance on reporting and analyzes, compiles, and makes available information; and assesses progress and recommends strategies for operationalizing Agenda 21 (Dodds et al., 2002; Yamin, 1999).

Despite the magnitude of the task, CSD has made some notable accomplishments. These include:

- As of 2012, 109 countries are implementing a National Sustainable Development Strategy (United Nations, 2009).
- As of 2002, 6,416 local authorities in 113 countries had committed to Local Agenda 21 (Commission on Sustainable Development, 2002).
- The development of a National ▶ Sustainable Development Indicator set (Parris & Kates, 2003, pp. 562–563).
- The establishment of several high-level, topical policy groups under the ACC including the Forum on Forests, the Open-ended Informal Consultative Process on Oceans and the Law of the Sea, and UN-Water (Andresen, 2007, pp. 326–327).

Often stated as its most significant accomplishment, however, is the progress made on increasing stakeholder participation and the involvement of NGOs in multi-stakeholder dialogs (Brown, 1998, p. 6; Dodds et al., 2002; Kaasa, 2007, pp. 121–122). The work of the CSD in this area is seen by some as a significant contribution to UN democratization in general (Andresen, 2007, p. 328; Weiss et al., 2001, p. 275). It has been more common, however, for the CSD to be criticized than praised.

The CSD has been referred to as a "fudge" (Bigg, 1995, p. 251), a "talk shop" (Brown, 1998, p. 5; Dodds et al., 2002, p. 4), and a "great disappointment" (Dodds et al., 2002, p. 13). It has been constantly criticized for failing to achieve its goal of advancing implementation of Agenda 21, most recently in 2012 by the Secretary-General's High-Level Panel on Global Sustainability (United Nations Secretary-General's High-level Panel on Global Sustainability, 2012). Some of the reasons most commonly given for the failure include locked in (generally) North–South political standoff, an overwhelming and fragmented agenda, too little stakeholder participation (despite the progress made), an environmental bias; a failure to meet ODA funding commitments, and lack of authority (Brown, 1998; Dodds et al., 2002; Kaasa, 2007; United Nations Secretary-General's High-level Panel on Global Sustainability, 2012; Yamin, 1999). The High-Level Panel recommended the replacement of the commission with a body of "higher institutional stature" as a subsidiary organ of the General Assembly (United Nations Secretary-General's High-level Panel on Global Sustainability, 2012, Recommendation 52). The recommendation appears to have been accepted at Rio + 20 in 2012, and negotiations for the establishment a "high-level political forum" are scheduled for 2012 (United Nations, 2012). Oddly enough, the new body recommended sounds very similar to the original board recommended by Brundtland. Imperfect as the CSD or its successor may be, the words of Brown (1998) still apply in 2012.

Cross-References

- ▶ Agenda 21
- ▶ Brundtland Commission (World Commission on Environment and Development)

- ▶ Local Agenda 21: International Council for Local Environmental Initiatives
- ▶ Sustainable Development
- ▶ Sustainable Development Indicators

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United Nations Databases

- ▶ United Nations Yearbooks, Statistical Collections, and Databases

United Nations Development Programme

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Synonyms

Economic development; Human development; Social development; UNDP

Definition

The **United Nations Development Programme** (hereafter UNDP) was created in 1965 through a merger of the *Expanded Programme of Technical Assistance* (created in 1949) and the *United Nations Special Fund* (established in 1958). By 1971, the two organizations were fully combined into the UNDP under its parent organization, the ***United Nations Economic and Social Commission*** (ECOSOC). The UNDP maintains its headquarters in New York City, but works primarily through its offices in more than 140 countries, many of which maintain their own country-specific website. The UNDP is an executive board within the United Nations **General Assembly**, that works closely with all other agencies of the United Nations and is responsible for generating the bulk of its support

through voluntary contributions from UN member states. The UNDP's administrator – currently **Helen Clark**, former prime minister of New Zealand – is the third highest ranking official of the United Nations after the United Nations Secretary-General and Deputy Secretary-General.

Since its creation, the UNDP has functioned as the United Nations **global development network**, an organization advocating for change and connecting countries to knowledge, experience, and **resources** to help people build a better life. The UNDP maintains a physical presence in 177 countries and territories, working with them on their own solutions to global and **national development** challenges. As they develop local **capacity**, countries draw on the resources of the UNDP and its wide range of governmental and nongovernmental partners. The central priorities of the UNDP include the promotion of (1) ***democratic governance***; (2) ***national, regional, and global poverty reduction***; (3) ***crisis prevention and recovery in conflict situations***; (4) **more** ***protective approaches to the environment and energy***; and (5) methods that ***halt the spread of HIV and AIDS***. The UNDP also promotes the ***protection of human rights*** and the ***empowerment of women*** in all of its programs.

Description

The contributions of the UNDP to **quality of life theory**, research, and practice have been multifaceted. They include:

1. Publication since 1990 of the thematic ***Human Development Reports*** that summarize national, regional (N = c. 50), and global (N = 20) development trends using more than 200 social indicators for the 23-year period 1990–2013.
2. The creation and steady refinement of a variety of composite indexes that measure **human development**, **inequality-adjusted human development**, and **gender inequality**:
   - The ▶ *Human Development Index* (HDI) is a summary measure of human development. It measures the average achievements in a country in three basic dimensions of human development: a long and **healthy life**, **access to knowledge**, and a decent **standard of living**. Data availability determines HDI country coverage. To enable **cross-country comparisons**, the HDI is, to the extent possible, calculated based on data from leading international data agencies and other credible data sources available at the time of writing (United Nations Development Programme [UNDP], 2010c).
   - The ▶ *Inequality-Adjusted Human Development Index* (IHDI) adjusts the Human Development Index (HDI) for inequality in distribution of each dimension across the population. The IHDI accounts for inequalities in HDI dimensions by "discounting" each dimension's average value according to its level of inequality. The IHDI equals the HDI when there is no inequality across people but is less than the HDI as inequality rises. In this sense, the IHDI is the actual level of human development (accounting for this inequality), while the HDI can be viewed as an index of "potential" human development (or the maximum level of HDI) that could be achieved if there was no inequality. The "loss" in potential human development due to inequality is given by the difference between the HDI and the IHDI and can be expressed as a percentage (UNDP, 2010c).
   - The ▶ *Gender Inequality Index* (GII) reflects women's disadvantage in three dimensions – **reproductive health**, **empowerment**, and the **labor market** – for as many countries as data of reasonable quality allow. The index shows the loss in human development due to inequality between **female and male achievements** in these dimensions. It ranges from 0, which indicates that women and men fare equally, to 1, which indicates that women fare as poorly as possible in all measured dimensions (UNDP, 2010c).
3. With the publication of its twentieth Anniversary *Human Development Report*

in 2010, the UNDP introduced a new ***Multidimensional Poverty Index*** that captures important aspects of the distribution of well-being for inequality, **gender equity**, and **poverty**.
   - The *Multidimensional Poverty Index* (MPI) identifies multiple deprivations at the individual level in health, education, and standard of living. It uses micro data from **household surveys**, and – unlike the Inequality-Adjusted Human Development Index – all the indicators needed to construct the measure must come from the same survey. Each person in a given household is classified as poor or nonpoor depending on the number of deprivations his or her household experiences. These data are then aggregated into the national measure of poverty (UNDP, 2010c).
4. The launching of the United Nations *Millennium Development Campaign* (MDC) (2005–2015) with its focus on the attainment of eight ***Millennium Development Goals*** (MDGs – United Nations, 2010; UNDP, 2010a, b, c).
5. The creation of 60 fully operational, time-sensitive, **social indicators** for use in assessing **social progress** (and failure) in achieving the MDGs (UNDP, 2010d).
6. The establishment of regular conferences that serve as fora where issues related to the advancement and measurement of quality of life, **well-being**, and **happiness** can be pursued on a regular basis (UNDP, 2010e).
7. Rapid, timely, and, often, highly effective international responses directed at helping to halt local and global assaults on the dignity and **satisfaction of the basic needs** of disadvantaged population groups (UNDP, 2010e).
8. A central focus on the **empowerment of women** in all aspects of development (UNDP, 2010f).
9. The promotion of **South–South partnerships**, that is, partnerships between and among developing and least developing countries (UNDP, 2010e).
10. Raising the **consciousness** of people and their governments throughout the world concerning the desperate circumstances under which the poor and other highly disadvantaged population groups live (UNDP, 2010e).
11. And mobilizing global action with and on behalf of historically disadvantaged nations and population groups worldwide (UNDP, 2010e).

UNDP URL: http://www.undp.org/

Cross-References

- ▶ Gender Inequality Index
- ▶ Human Development Index (HDI)
- ▶ Inequality-Adjusted Human Development Index
- ▶ Physical Quality of Life Index (PQLI)

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United Nations Economic Commission for Europe

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Brief History

UNECE (United Nations Economic Commission for Europe) was set up in 1947, right after the Second World War. The main purpose of establishing the organization is to promote the integration of European economy and help Europe recover its economy in the postwar period. However, the conflict between the Capitalist and the Communist bloc caused a lot of difficulties for the work of UNECE during Cold War period. Hence, the commission put its focus on building up more effective trading relationship between the Western and Eastern Europe and attempted to bring economic improvement to the pan-European region.

After the collapse of the USSR, the focus of UNECE has changed. As the world marched into the era of economic globalization, the commission has started to assist the transitioning countries in Eastern Europe and Western Asia (countries that were parts of the USSR or under its influence) to make their country's economy to cope with the current world economy system.

Activities/Major Accomplishments/ Contributions

Besides concerning with the economic development and transition of these newly developed countries, the commission also put its effort to improve the living quality of people in these countries. In 2000, 189 nations of the United Nations signed the Millennium Declaration and promised that the world should achieve eight goals (MDGs, Millennium Development Goals) in or before 2015; they are as follows: (1) eradicate extreme poverty and hunger; (2) achieve universal primary education; (3) promote gender equality and empower women; (4) reduce child morality; (5) improve maternal health; (6) combat HIV/AIDS, malaria, and other diseases; (7) ensure environment sustainability; and (8) develop a global partnership for development.

For UNECE, its mandate is to assist these transitional European countries (especially the ECA region (Emerging Europe and Central Asia) such as Serbia, Ukraine, Uzbekistan, Poland, Hungary, and Estonia (see ANNX I for more detailed information)) to achieve the goals and measure their general performance of their achievement. Therefore, UNECE has collected official data from these countries and carried out research in the ECA region. According to the "Assessment of Capacity for Countries of Eastern and South-Eastern Europe, Caucasus and Central Asia to Produce MDG-Relevant Statistics" published by UNECE in 2008, 57 % of sources used for measuring MDG indicators were administrative data, 36 % were sample survey, and 7 % came from population census. In other words, the UNECE highly depends on statistics provided from the national authorities. UNECE obtained annual official data from different countries, including population censuses and results of surveys such as the national household income and expenditure surveys and labor force surveys. However, not all ECA countries are able to provide all these official data to UNECE. It is difficult for UNECE to collect all MDG-related data and statistics from the national authority. For example, the sampling size of the household survey in Kyrgyzstan and Tajikistan was only around 1,000 in the survey conducted in 2008, while the UNECE report suggested the international average sampling size should be around 10,000. In addition, concepts and questions used in the surveys were not the same across countries; therefore, the quality of data was hard to standardize.

Reports have been published to discuss the performance of the countries in the past decade in terms of achieving different MDGs.

These reports were based on data collected by the UNECE. However, some data were missing or not able to meet all goals of development at all. Published reports cover different topics and issues related to the MDGs. The last one, published in 2011, was a full report on the progress of achieving goals of 29 ECA countries. In 2010, UNECE also published another progress report regarding the achievement and challenges of these ECA countries. However, there was no such full progress report published in 2009. On the other hand, annual report of worldwide achievement of MDGs is published every year. The report from 2005 to 2011 can all be downloaded from the website of United Nations. Currently, the reports are published by the Statistics Division of the United Nations.

Measurement of MDGs and Its Indicators

According to "The UNECE Report on Achieving the Millennium Development Goals in Europe and Central Asia, 2011" which is one of the latest reports published regarding the achievements of MDGs, performance of achieving MDGs was measured by various indicators. We can use goal 1 and goal 2 as examples to explain how the MDGs were measured (Goal 1. Eradicate extreme poverty and hunger and Goal 2. Achieve universal primary education). For the first goal, countries' performances have been measured by the indicators of population percentage below the poverty line defined as population living on less than 1.25 USD per day, employment-population ratios, and the proportion of people who suffer from hunger. Meanwhile, the second goal has been indicated by the enrollment rate of primary schooling and reading literacy of 15-year-old students. The report used data from PISA (Programme of International Student Assessment) which was conducted by the OECD (Organization of Economic Cooperation and Development) and compared the score of different countries' students in order to measure the achievement of promoting universal education within the countries and summarize an average standard for ECA countries. For other goals, gender pay gap, breast-feeding rate, number of induced abortions, new reported AIDS cases, etc. were all used as measurement indicators. In short, the performances of the countries were measured by combining quantitative data of various indicators.

MDGs and the Measurement of Living Quality

It is possible to use MDGs as one of methods to measure the living quality of people living in these countries. It is difficult to use a single standard to measure the living quality of different countries' people. Difference across culture, level of economic development, etc. would all affect people's mind-set of what is "good" living quality and what is "bad" living quality. For these ECA countries, the measurement of people's living quality should be focused on the essential and basic living condition, like food, education, and personal and public health first. Other living qualities surveys conducted in other developed European countries, for example, the Swedish Living Standards Survey, mainly concern about people's feelings like the sense of comfort and security and their level of satisfaction regarding their daily life as well. Measurement of MDGs plays a totally different role; its main idea is to help and make sure these newly developed countries could achieve those basic development goals and improve the basic living standard of their people.

Key Finding and Reports

The latest report published by the UNECE showed that, in general, most ECA countries are still on the right track towards achieving the MDGs, mainly by comparing data and statistics between the periods of 1990–2000 and 2001–2011. For the goal of eradicating extreme poverty and hunger, most of ECA countries improved their country's situation; however, in some countries like Uzbekistan, the rate of people living below the poverty line is almost 40 % in 2011. Generally, the population of living below the poverty line (living on less $1.25 USD) has increased in 2011 compared to the 1990 data. The transition recession and the worldwide financial crisis of 2008 were the main reasons.

For the goal of achieving universal primary education, in 2011, almost all ECA countries

have improved their performance. The average enrollment rate was around 93 %. However, in countries like Albania and Armenia, their performances were below average. The Baltic countries like Estonia and Latvia and Eastern European countries like Hungary and Poland did very well in terms of promoting universal education. The mean score of PISA 2009 for students in Estonia and Poland (representing reading literacy of 15-year-old students) was almost the highest (mean score: 500) among the ECA countries region. And the performance of Kyrgyzstan was the poorest with a mean score of around 300, left far behind of the average standard.

For the goal of promoting gender equality within the country, most of ECA countries did well in providing primary education to all boys and girls. In the Eastern European countries, like Poland and Hungary, more than half of the graduates in tertiary were women in 2008 and 2009. However, in Western Asian countries, such as Azerbaijan, Kyrgyzstan, Turkmenistan, and Uzbekistan, it is still common for girls leaving school earlier to follow traditional practice and get married. In general, there were still a lot of room for the improvement of the public health systems of ECA countries; UNECE suggested that the government expenditure on health as a percent of GDP should be around 5 %. However, most of the ECA countries failed to do so, and some of them like Bulgaria and Latvia even cut off its public health budget during the worldwide financial crisis in 2008–2009. Azerbaijan just spent 1 % of its GDP on public health in 2008 which was the lowest among all ECA countries. Overall, the mortality for children under 5 years of age (U5MR) has dropped rapidly since 1990s in ECA countries (from 34 deaths per 1,000 live births in 1990 to 13 in 2009). On the other hand, the improvement was not even at all within the region. Central Asian countries such as Turkmenistan and Tajikistan still had the highest U5MR. In the rural area of Turkmenistan, the rate was 100 per 1,000 live births which was totally the highest among all ECA countries.

It is obvious that the improvement of the living standard of different ECA countries was uneven, especially in terms of education and public health. Eastern European countries like Poland and Hungary and Baltic countries like Estonia and Latvia generally did much better than the ones in Central Asia, for example, Turkmenistan, Azerbaijan, and Uzbekistan. The worldwide financial crisis to some extent slowed down the regions' improvement generally, and it also showed that the social and economic development has been affected by the worldwide economic system which was also a significant sign of globalization.

Limitations of MDGs Measurements

The MDGs indicators are instrumental for making international comparisons in the quality of lives in these ECA countries. However, it is important to keep in mind the limitations in the MDGs measurements. UNECE depends heavily on data offered by national authorities of ECA countries. For example, UNECE would collect statistics of national population censuses and results of household survey from different national authorities. However, not all ECA countries are able to provide a full set of data that matches with the indicators of MDGs. In addition, the research methods and sampling size of different surveys are not standardized across countries. These methodological issues made statistical work of UNECE very difficult. Most importantly, many ECA countries have still not yet developed their own national statistical systems. This means it is challenging for these countries to carry out large-scale national surveys with adequate sampling strategies. With limited resources, many ECA countries failed to conduct surveys with an adequate sample sizes. The ineffective statistical authorities have also caused problems of missing data. For example, in 2008, Bosnia and Herzegovina and Uzbekistan failed to provide their official population data as these two countries had not carried out any population census recently. Therefore, researchers should be cautious of the quality of data when using MDGs measurements.

ANNX 1: Sub-regions of the UNECE region

South-Eastern Europe (SEE)

Albania Montenegro Bosnia and Herzegovina Serbia Croatia Turkey

The former Yugoslav Republic of Macedonia

Eastern Europe, Caucasus, and Central Asia (EECCA)

Armenia Republic of Moldova Azerbaijan Russian Federation Belarus Tajikistan

Georgia Turkmenistan Kazakhstan Ukraine Kyrgyzstan Uzbekistan

New EU post-transition member States (NMS)

Bulgaria Lithuania Czech Republic Poland Estonia Romania Hungary Slovakia

Latvia Slovenia

Emerging Europe and Central Asia (ECA) = EECCA + SEE + NMS

Economies in Transition (EiT) = EECCA + SEE

Advanced ECE Economies (EAE)

Andorra Liechtenstein Austria Luxembourg Belgium Malta

Canada Monaco Cyprus Netherlands Denmark Norway Finland Portugal

France San Marino Germany Spain Greece Sweden Iceland Switzerland

Ireland United Kingdom Israel United States Italy

Cross-References

- ▶ Economic and Social Indicators
- ▶ Economic Development
- ▶ Europe, Quality of Life
- ▶ Indicators of Social Development (ISD)
- ▶ Social Trends
- ▶ Social Welfare
- ▶ Social Well-Being
- ▶ Societal Progress

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United Nations Educational, Scientific and Cultural Organization (UNESCO)

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Brief History

United Nations Educational, Scientific and Cultural Organization

Building Peace in the Minds of Men and Women

The United Nations Educational, Scientific and Cultural Organization (UNESCO) is one of 18

specialized agencies within the United Nations system. It was established in the aftermath of the Second World War to contribute to building global peace and security, with 37 countries signing its constitution in November 1945. This document begins with the vision that "since wars begin in the minds of men, it is in the minds of men that the defences of peace must be constructed."

▶ Quality of life issues define UNESCO's activities: its purpose is expressed in Article I of its constitution:

> to contribute to peace and security by promoting collaboration among nations through ▶ education, science and ▶ culture in order to further universal respect for justice, for the rule of law and for the ▶ human rights and fundamental freedoms which are affirmed for the peoples of the world, without distinction of race, sex, language or religion. (UNESCO Constitution, 1945, Article 1)

UNESCO Today

The organization is governed by its 195 member states and 8 associate member states. As well as its Paris headquarters, there are 57 UNESCO field offices around the world, most of which are regional offices covering three or more countries.

UNESCO's mission is to contribute to the building of peace, the eradication of ▶ poverty, ▶ sustainable development, and intercultural dialogue through **education, the sciences, culture, communication, and information**. Its activities are directed toward the development objectives of the international community, as set out in internationally agreed targets including the Millennium Development Goals (MDGs).

Activities/Major Accomplishments/ Contributions

Overview

As the lead United Nations agency in its five core areas of ▶ **education**, **natural sciences**, **social and human sciences**, ▶ **culture**, and **communication and information**, UNESCO gathers and shares information, knowledge, and best practices – including recognizing emerging challenges – toward achieving international development objectives.

The main goals in these five areas are as follows:

- Achieving universal primary education and attaining quality education for all, including ▶ lifelong learning
- Mobilizing science knowledge and policy for sustainable development, including halting the loss of environmental resources
- Addressing emerging social and ethical challenges
- Fostering ▶ cultural diversity, intercultural dialogue, and a culture of peace
- Building inclusive knowledge societies through information and communication

All programs integrate a human rights–based approach to sustainable development, with an emphasis on eradicating poverty and helping countries to implement strategies for sustainable development. Africa and ▶ gender equality are priority concerns for all five sectors.

Projects carried out or sponsored by UNESCO include ▶ literacy, technical, and teacher-training programs; international science efforts such as establishing ocean-based tsunami warning systems; the promotion of independent media and freedom of the press; the protection of cultural diversity; and attempts to bridge the worldwide digital divide.

Many of UNESCO's activities relate to more than one of its five program areas and require a multidisciplinary approach. Examples include creating partnerships to protect shared water resources or to improve educational opportunities for women and girls. Cross-platform projects address a broad range of development challenges: HIV and AIDS, the socioeconomic impacts of climate change, responses to postconflict and postdisaster situations, education for sustainable development, or the particular challenges faced by small island developing states.

One of UNESCO's most famous special themes is its **World Heritage Centre**, which identifies places of particular cultural, historic, or natural/scientific value to protect and maintain for future generations. These include the Pyramids of Giza, Australia's Great Barrier Reef, and Peru's Machu Picchu.

Education

UNESCO promotes literacy and quality education for all throughout life. It develops and disseminates best practices, manuals, and teacher-training packages; encourages special measures to provide education in situations of conflict or emergency; assists countries in formulating and implementing educational policies; sets standards for the recognition of qualifications in ▶ higher education; and supports the development of technical and vocational education and training programs.

Its education actions place particular emphasis on gender equality in education, HIV/AIDS prevention, youth, and reaching society's most vulnerable and marginalized groups, including indigenous peoples. Special attention is given to education and teacher training in Africa, the least developed countries, and small island developing states, with education for sustainable development as a crosscutting concern.

UNESCO leads the global campaign to reach the international **Education for All** goals for all children, youth, and adults by 2015, agreed on by the international community at the World Education Forum in Dakar, 2000. These goals aim to expand early childhood care, ensure quality primary education for all children, increase youth and adults' access to learning and life skills, improve adult literacy rates by 50 %, eliminate gender disparities in education, and improve education quality worldwide. It publishes the annual ▶ Education for All Global Monitoring Report, an authoritative report that aims to inform, influence, and sustain genuine commitment toward Education for All.

UNESCO coordinates the efforts of development partners, governments, education ministries, nongovernmental organizations, and civil society to achieve these objectives and provides assistance to its member states to achieve these and the education-related Millennium Development Goals.

The education program includes specialized institutes and centers in all regions of the world, such as the International Institute for Capacity Building in Africa (in Addis Ababa, Ethiopia), the International Institute for Educational Planning (in Paris, France, and Buenos Aires, Argentina), the Asia-Pacific Centre of Education for International Understanding (in Seoul, ▶ South Korea), the International Institute for Higher Education in Latin America and the Caribbean (in Caracas, Venezuela), the International Centre for Technical and Vocational Education and Training (in Bonn, ▶ Germany), and the International Bureau of Education (in Geneva, Switzerland).

Founded in 1953, the UNESCO Associated Schools Project Network (ASPnet), commonly referred to as UNESCO Associated Schools, is a global network of more than 9000 educational institutions in 180 countries. ASPnet schools are often involved in activities linked to quality of life and the priorities of UNESCO and the United Nations, such as peace, gender equality, poverty, hunger, HIV and AIDS, pollution, climate change, illiteracy, cultural identity, or child labor.

Natural Sciences

The Natural Sciences program encourages the development and implementation of science, engineering, technology, and innovation for sustainable development and poverty eradication. It prioritizes the strengthening of national and regional research and innovation systems, improved use of technology, and scientific networking.

UNESCO provides data and technical assistance to help governments create sustainable national policies and frameworks for science, technology, and innovation. It promotes research and technical capacity building for the sound management of natural resources and for disaster preparedness and mitigation and helps reinforce the science and technology capacities of developing countries.

UNESCO plays a leading role in supporting states to prepare for and reduce disaster risk, including mitigating climate change, and adapt to its impacts. UNESCO's Intergovernmental Oceanographic Commission (IOC) promotes international cooperation and coordinates programs in marine research, services, observation systems, hazard mitigation, and capacity development in order to understand and effectively

manage the resources of the ocean and coastal areas. The IOC set up the Pacific Tsunami Warning System and has since coordinated the creation of the Indian Ocean Tsunami Warning System and similar systems in other parts of the world.

UNESCO's International Hydrological Programme is the only intergovernmental program of the United Nations system devoted to water research, water resources management, and education and capacity building. UNESCO also hosts the United Nations World Water Assessment Programme, which coordinates the work of 28 UN-Water members and partners to monitor freshwater issues and develop the triennial World Water Development Report. UNESCO's Man and the Biosphere Programme is an intergovernmental scientific program aiming to set a scientific basis for the improvement of the relationships between people and their environment globally.

Social and Human Sciences

UNESCO's Social and Human Sciences programs address key contemporary challenges such as globalization, migration, urban development, ▶ multiculturalism, diversity, citizenship, human rights, and development issues. It considers the ethical dimensions of scientific and technological developments, identifies and analyzes important social trends, and promotes a better understanding and management of social transformations.

Actions support social scientists and decision makers in developing improved responses to societal issues of high complexity. The Management of Social Transformations program prioritizes capacity building and focuses on improving links between research and policy making – including the formulation, monitoring, and evaluation of development actions.

The Social and Human Sciences program also developed the International Convention against Doping in Sport, which helps to formalize global antidoping rules, policies, and guidelines in order to provide an honest and equitable playing environment for all athletes.

In the fight against discrimination, UNESCO tries to identify obstacles hampering the full exercise of human rights: the impact of nationalism, religious intolerance, racism, discrimination against minorities, and forms of discrimination arising from scientific progress or from illness such as HIV and AIDS.

UNESCO also advances research on violence and develops regional plans to increase human security. It improves links with local initiatives to prevent conflicts at their source and supports the development of policies for sustainable development and alleviating poverty.

Culture

UNESCO leads international efforts to safeguard humanity's diversity and shared cultural heritage. It works to enhance ▶ social cohesion by fostering pluralism, intercultural dialogue, and a culture of peace, as well as securing the central role of culture in sustainable development.

Culture offers important benefits in terms of social cohesion. The cultural industries are also sources of innovation that create jobs and contribute substantially to national economies worldwide. UNESCO promotes integration of the principles of cultural diversity and the values of cultural pluralism into all development policies, mechanisms, and practices, particularly through public/private partnerships.

UNESCO is active in global standard setting, establishing a set of groundbreaking international conventions to ensure the protection of cultural heritage in both its tangible and intangible forms, including underwater heritage. The Convention for the Protection of Cultural Property in the Event of Armed Conflict (1954) adopted at the Hague in the wake of massive destruction of cultural heritage during the Second World War was the first international treaty focusing on the protection of cultural heritage in situations of armed conflict. The Convention on the Illicit Import, Export and Transfer of Ownership of Cultural Property (1970) recognizes that cultural objects are particularly threatened by illicit trafficking, due to their value both as commercial goods and as components of cultural identity.

More recent conventions include the Convention for the Protection and Promotion of the Diversity of Cultural Expressions (2005), which works to support cultural industries in developing and developed countries. A full list can be found on the UNESCO Conventions page.

UNESCO promotes cultural diversity as the basis for deepening understanding and furthers international cooperation in the cultural field to achieve development objectives. Cultural heritage is endorsed as a resource for future generations and a tool for reconciliation today. This mandate led the United Nations General Assembly to request UNESCO to lead the International Decade for a Culture of Peace and Non-violence for the Children of the World (2001–2010) and the 2010 International Year for the Rapprochement of Cultures. These global initiatives mobilized an impressive range of actors, from young people to heads of state, to participate in activities across the world to deepen understanding as the basis for greater respect and more meaningful dialogue.

The Endangered Languages Programme supports linguistic diversity and the efforts of speaker communities to maintain or revitalize their mother tongues and pass them on to younger generations. The program develops monitoring tools and policy advice and builds technical expertise through training, good practices, and a platform for exchange and transfer of skills. UNESCO's flagship activity in safeguarding endangered languages is the Atlas of the World's Languages in Danger.

Communication and Information

UNESCO is the only United Nations agency with a clear mandate to promote freedom of expression as a fundamental human right that underpins all other civil liberties.

The organization assists developing countries in strengthening their communication capacities by developing independent and pluralistic media and improving media access to ICT, in particular through the International Programme for the Development of Communication. UNESCO provides media and information literacy training to widen access for all to information, which is the driving force of sustainable development. It also supports the expression of cultural diversity in the media and the training and education of journalists through curriculum design and assistance to journalism schools.

UNESCO's Community Multimedia Centres combine low-cost, easy-to-operate community radio with public access to the Internet and related technologies. They inform, educate, and entertain but also give a strong public voice to the voiceless and encourage greater accountability in public affairs. UNESCO also creates ICT training opportunities and develops and distributes free software in partnership with private software companies.

UNESCO is outspoken in condemning all violations of freedom of expression and information. By providing policy advice and developing networks, it encourages governments to develop standards and legislative instruments to defend press freedom. It also provides direct support to independent media, especially in countries in transition and in conflict and postconflict areas. In Afghanistan, for example, UNESCO helped relaunch the independent Kabul Weekly and the national news agency. It has also been working with the government and local media to develop new legislation mindful of press freedom and supportive of public service broadcasting.

In new democracies, UNESCO works to strengthen freedoms through media sector reform and pre-electoral assistance.

Violence against journalists remains the most serious danger to freedom of expression. From 2001 to 2011, more than 500 journalists and media workers were killed worldwide, with many more wounded or threatened while carrying out their professional responsibilities. With a view to strengthening peace, democracy, and development worldwide, UNESCO led the development of the United Nations Plan of Action on the Safety of Journalists and the Issue of Impunity, endorsed in April 2012, toward a free and safe environment for journalists and media workers in both conflict and nonconflict situations.

Crosscutting Themes

Africa

Africa, as a designated global priority, is integrated into all phases of the development, implementation, and evaluation of UNESCO's programs. This includes a special emphasis on UNESCO's response to postconflict situations and reconstruction.

The organization works in cooperation with the African Union and its New Partnership for Africa's Development (NEPAD) program on initiatives that are aligned with priorities defined by the African Union, Africa's Regional Economic Communities, and their member states. These actions include a strong focus on supporting education for all and promoting science, technology, and innovation in African countries.

UNESCO's cooperation with the African Union has led to Pan-African decisions in the fields of education, culture, and natural sciences. Among these are as follows:

- Implementation of the Second Decade of Education for Africa (2006–2015)
- Coordinated action on African languages, the African diaspora, and African arts and culture
- A consolidated plan of action on science and technology implemented by the African Man and the Biosphere network (AfriMAB)
- A joint African position and specific decisions on climate change and the creation of an Observatory for Science based in Africa

UNESCO has been instrumental in the creation of the African World Heritage Fund and coordinating its activities with regional and subregional organizations in projects on African languages and the harmonization of curricula in HIV/AIDS prevention.

UNESCO is working to support literacy as essential for eradicating poverty, reducing child mortality, curbing population growth, and promoting gender equality. In Mozambique, for instance, UNESCO is training children to teach their own families. Partly as a result, illiteracy in the country has dropped from 90 % only a few years ago to just below 50 % today. UNESCO's Teacher Training Initiative for Sub-Saharan Africa is also supporting countries to improve the status and conditions of teachers and to create effective national policy frameworks.

Gender Equality

UNESCO supports women's and girls' rights and promotes ▶ women's empowerment and gender equality in all its domains – education, the natural and social sciences, culture, communication, and information. The organization is strongly committed to pursuing ▶ gender equality through initiatives that seek to redress inequalities and by mainstreaming a gender perspective in all of its programming.

UNESCO leads efforts to increase the literacy of girls and women, which is key to meeting the Millennium Development Goals of improving livelihoods and child and maternal health. It promotes policy-oriented research, capacity building, training, and advocacy for gender equality and women's rights worldwide.

In education (formal and nonformal), UNESCO strives to redress gender inequalities at all levels in terms of access to education, retention and completion rates, and the quality of education available. UNESCO also addresses issues such as the stereotyping of women and inequalities in women's access to and participation in media and information services. In conflict and postconflict areas, UNESCO actively supports actions that seek to guarantee a safe working environment for all journalists.

UNESCO's Global Partnership for Girls' and Women's Education is mobilizing new partnerships with the private sector to develop policy support and initiatives to increase education possibilities for adult women and the availability of nonformal education.

Cross-References

▶ Cultural Goods and Services (Consumption of)
▶ UNESCO Framework for Cultural Indicators
▶ UNESCO World Culture Report

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Brief History

The United Nations Research Institute for ▶ Social Development (UNRISD) was established in 1963 as an autonomous entity in the United Nations system to mobilize research on social dimensions of development. This was a time when policy makers often assumed naïvely that ▶ social progress would flow automatically from economic modernization. Development indicators were based primarily on national accounts data. Far less attention was paid to social indicators, and those that existed were of highly questionable quality (UNRISD, 1993). During its first 20 or so years, and especially under the directorship of Donald McGranahan from 1967 to 1977, UNRISD undertook considerable work on methods of measuring and analyzing socioeconomic development. Two of the early UNRISD projects, respectively, at the cross-national and at the local levels, are described here for their innovative character.

Activities/Major Accomplishments/Contributions

Socioeconomic Measurement and the Development Profiles

Late in the year 1977, this author sat in the office of the Iranian Minister of Social Affairs in Teheran, an old acquaintance. He proudly pointed to a chart on the wall behind his desk, set in a gilded frame (Chart 1). It showed the position of Iran in respect of each of 15 indicators, social, economic, and structural. The indicators had been carefully transformed and scaled so as to correspond one with another and, for the sake of comparability, with the same indicators of all other large countries in the world (Table 1).

The story told by this chart, which had been produced by UNRISD, was simple: it provided quantitative and precise evidence that Iran was strong in (certain sectors of) its economy but lagged sadly in (certain, though not all, sectors of) social development. It was a condition, the Minister said, that he was anxious to change, before it was too late. The writing was on the wall, literally, he said. Indeed, the Shah's government was overthrown several months later.

The making of this and similar charts and their publication spanned almost 25 years, the time it took Donald McGranahan to complete this phase of his work on the interrelations of economic and social factors in development, begun so notably in the United Nations 1961 *Report on the World Social Situation*, a best seller as UN publications go. Two years later he persuaded the Government of the Netherlands to donate a million dollars, a lot of money at the time, to set up UNRISD, of which he became Director in 1967. Its task was to conduct research "into problems and policies of social development and relationships between various types of social development and economic development during different phases of economic growth." Work on the charts, the raw material of further quantitative analysis of interrelationships, was fitful, as time and energy were divided among the many other projects of the Institute. The final report *Measurement and cpcpcAnalysis*

United Nations Research Institute for Social Development (UNRISD), Table 1 Iran: Development profile for 1970[1/](McGranahan, Pizarro, & Richard, 1985). [1/] Data available for 13 indicators, [2/] Average of transformed values. *LITER* Literate as percent of total population 15 and over, *COMEN* Combined primary and secondary education enrolment as percent of population 5–19, *EXPLI* Expectation of life a birth, *INFMO* Infant mortality per 1,000 live births, *WATSU* Water supply – percent of population with reasonable access, *ANPRO* Apparent consumption of protein of animal origin, per capita, per day, *TELVS* Television receivers per 1,000 population, *TELEP* Telephones per 1,000 population, *AGRPR* Agricultural production per male agricultural worker at current prices in US$, *STEEL* Steel, apparent consumption per capita in kg, *ENERG* Energy, apparent consumption per capita, kg of coal equivalent, *INVES* Investment per economically active person (annual average 1960–1970) in 1970 (US$), *FORTR* Foreign trade (exports plus imports) per capita (US$), *GDPPC* GDP per capita (in purchasers' values) at current prices in US$

INDEX LEVEL	LITER	COMEN	EXPLI	WATSU	ANPRO	TELVS	TELEP	AGRPR	STEEL	ENERG	INVES	FORTR	GDPPC
120.00			76.9		95.0	509	73068	13838	1068	14109	2537	2962	6721
110.00		85.0	75.0		93.2	419	56366	10535	857	11055	1987	2281	5178
100.00	99.0	80.9	73.3	100.0	79.7	337	41272	7550	666	8295	1489	1666	3784
90.00	97.5	74.4	71.4	94.1	64.3	246	25062	4690	474	5575	986	1026	2474
80.00	94.5	69.2	69.7	83.0	51.2	174	14212	2723	317	3634	625	599	1574
70.00	91.1	64.6	68.1	72.8	39.9	115	7477	1496	182	2147	378	369	1011
60.00	83.0	59.4	64.0	63.1	32.0	71.3	4683	1044	102	1346	257	271	734
50.00	73.2	54.4	59.0	54.0	25.7	41.0	2891	762	57.0	822	170	198	532
40.00	61.2	48.5	54.7	42.2	20.3	22.5	1812	601	35.9	514	118	140	406 – 38.54 [2/]
30.00	44.0	41.3	50.7	32.3	16.6	12.0	1153	474	23.9	343	82.5	102	318
20.00	30.6	33.3	46.7	21.8	13.6	4.90	614	345	13.5	213	49.8	72.4	225
10.00	21.6	23.7	42.8	11.9	10.8	0.77	286	228	6.14	110	24.6	45.0	143
0.00	14.1	13.9	39.6	4.08	8.10	0.0	76.4	125	0.93	27.6	4.67	21.2	80.8
−10.00	2.88	0.0	34.9	0.0	73.75	0.0	0.0	118	0.0	0.0	0.0	0.0	75.0
−20.00	0.0		30.7		0.0								

of Socio-Economic Development (henceforth the *Report*) was published only in 1985 (McGranahan, Pizarro, & Richard et al., 1985).

The first requirement was a set of valid social, economic, and structural data at the national level for countries with one million or more population. The data had to cover the main components of development; they had to be conceptually valid (i.e., realistically and as possible comprehensively represent health if this was a component to be measured, and so on with other components of levels of living). They had to be comparable among countries (in terms of definitions, sources, national coverage) and reasonably accurate. McGranahan reviewed the world of quantification and, unlike other, celestial directors of the universe, found that it was not well done. Available data bases were lacking in validity and comparability. The first step therefore was to set up (and carefully screen) such a compilation which was finally issued by the Institute in four volumes as the *Research Data Bank of Development Indicators 1970*. For purposes of analysis, a smaller number of key indicators (19 at best, fewer in countries with missing data) were extracted.

The data base provided the raw material. Next, McGranahan and his colleagues Edward Pizarro and Claude Richard surveyed existing tools used

in development analysis, such as correlation coefficients and least square regressions. Developmental data for cross-country analysis have certain characteristics which in many respects make them unsuitable for manipulation using these traditional methods. The distributions of most of the data series are not "normal"; many are curvilinear. Some of them are of the per capita type with mainly geometric progression, others of the percentage type with mainly arithmetic progression. New methods were needed to overcome these problems.

Considerable work, described in detail in the Report, was devoted to the development of suitable tools. Thus, best-fitting multivariate lines were constructed on the following principles:

1. The distances of deviations from analytic lines in development analysis should be measured in simple absolute terms rather than by squares (and making use of medians rather than means).
2. No assumption should be made in the analysis of cross-national development data to the effect that all of the deviations are on one or the other variable.
3. The drawing of analytic lines through cross-national data should be disengaged from a priori causality assumptions.
4. In general, a bivariate distribution of development data is best analyzed by a single line – the best estimate of the "true line" of the distribution.

Using the multivariate best-fitting lines, methods (described in the *Report;* too complex for a summary here) were next developed to obtain a grid of correspondence points, as shown in the chart above. The values of each indicator were transformed and scaled so as to correspond one with another, then divided into (ten) even intervals. The actual values as in the data base were next superimposed on the chart, as shown in the example of Iran. The result was a set of development profiles, one for each large country in the world as of 1970.

The question remains: why a profile rather than a ▶ composite index. I had the answer later when working on the statistics of the countries of the former Soviet Union and Eastern Europe I looked, for comparative purposes, for countries elsewhere with similar levels of overall development. Ul Haq and company on behalf of UNDP had meanwhile (in 1990) constructed the composite ▶ Human Development Index. Saudi Arabia in 2002, I found, had about the same HDI value as Kazakhstan. Turkmenistan could be compared with Turkey, Armenia with Fiji, Azerbaijan with Tunisia. The HDI apart, each pair had (at the time) very little else in common. To me, at least, the interest in the measurement of development lies not so much in an overall or average value as in the contrast among the separate components. (What indeed was remarkable about many of the former Soviet republics, as compared with most other countries, was the wide divergence, one from each other, of the three indicators of the HDI in 2002, a divergence by far greater than almost anywhere else in the world.)

It is this contrast generally and especially between economic and social factors that McGranahan examined in the 1961 *World Social Report* and that led him to pursue this line of enquiry at UNRISD. In the *Report* he notes: "The position has been taken in this study that, in general, a development profile is a much more useful and informative measurement device than a single overall index of development, whether a synthetic index combining several economic and ▶ social indicators or an indicator like GDP per capita used as a proxy for the totality of social as well as economic development measurement. An overall index of any kind tends to conceal more than it reveals.'

To do justice to the authors of the HDI, some of them have claimed, perhaps rightly, that where advocacy is the purpose, a single index (a single figure) is to be preferred to more complex constructs. Moreover, in the annual *Human Development Report*, they publish data of the constituent elements of the index, as well as a wide range of complementary data. However, as the Iranian example is intended to show, a profile, consisting of a single line, is easy to understand. And simplifying results for advocacy is not usually the purpose of scientific research.

The profiles constructed by McGranahan and his colleagues were intended as an intermediary

stage. As they say in the *Report*, the profiles can be used, for example, to assist with causality analysis over time by identifying the kind of profile that is associated with rapid (or slow) subsequent growth in a specific sector (e.g., the economy) or a specific type of countries. Nothing came of this. McGranahan, retired from the Directorship in 1977, could devote only limited time to these studies. Under new guidance, the Institute turned its attention and resources to other aspects of development.

Monitoring at the Local Level (the Development Monitoring Service, DMS)

This project at UNRISD arose from a remark by Gunnar Myrdal (Nobel laureate of 1974), during a session of the Institute's Board. Having recently finished his epic *Asian Drama* (Myrdal, 1968), he complained about the lack of realistic statistics in Asia, especially labor statistics which, he said, were ill-adapted to conditions of developing countries at the time. He would have liked to have seen even one village study describing the labor market in terms that made sense in the local context (failing to mention, however, his son's excellent study of a Chinese village: Jan Myrdal, 1963).

One thing led to another. With the help of Donald McGranahan and Helen Argalias, this author compiled a survey of relevant village studies (none of which would have satisfied Myrdal's wish for realistic employment data) (Scott et al., 1973). Pilot studies subsequently conducted in Argentina, Ghana, India, Iran, Mexico, Nigeria, Papua New Guinea, and Poland, however, suggested the systematic use of local areas (villages and towns) in development monitoring. A full-scale trial began in 1979 jointly with the Kerala Statistical Institute (KSI) in the Indian state of Kerala. The central feature of this "Development Monitoring Service at the Local Level" (DMS), and a novelty as regards data collection and analysis, was the combination of data on living conditions of households and individuals (such as are normally obtained from surveys or censuses) with data on local services (schools, medical centers, etc.), government projects and major spasmodic events (disasters) such as droughts or tidal waves that had affected the localities, wage rates, working hours, and so on. Data were collected annually over 5 years, from 1979 to 1984. Many of the observed changes in living conditions over the period could be explained in terms of the structural information and the geographic identity of the local areas in a way that is not possible with the use of traditional data sources. Examples are given below.

The structure of the DMS in Kerala was as follows: 12 areas were selected, of which nine rural panchayats (India's smallest administrative units) representing Kerala's socioeconomic and historic-political divisions: as well as three urban areas (for details of the methodology and the data items, see Mathew and Wolf Scott, Mathew & Scott, 1980, 1982, 1985). Each area contained between 20,000 and 30,000 population. A local person was designed in each area as enumerator and trained and remunerated by the KSI. The latter supervised the data collection, checked and tabulated the information. The following information was collected each year:

1. Information about the area, collected from key respondents, including information on services available, such as health and education services, on economic and industrial units, banks, post offices, roads, means of transport, shops, social clubs and similar, wage rates (incl. wages in kind), and working hours. Government projects insofar as they were likely to affect the local areas, major natural disasters during the period, etc.
2. A small amount of data from a sample of about 2,000 households per area, namely, household size, type of house, whether there is electricity in the house, kinds of sanitation and source of drinking water, the number of days of illness in the households during the week preceding the interview; births, deaths, and infant deaths during the previous year; details about the head of the household, such as education, religion, caste, household income, employment.
3. For a smaller sample of about 200 households per area: demographic and socioeconomic characteristics of household members, particulars of the dwelling, data on household durables, livestock, landholding, expenditure on

major food items, clothing, medical and educational expenses, attitudes on caste, distances to schools and medical facilities, protected water, newspaper readership, etc.

4. Special surveys were carried out from time to time, for example, in 1982 of the height and weight of children under ten.

Changes in the method of data collection were recommended on conclusion of the 5-year period. In particular, it was proposed to collect data from the 2,000 households every fifth year only and instead enlarge the smaller sample each year from 200 to 300 households.

The data were used to monitor changes over the 5-year period and analyzed to explain some of the trends. The three areas with continuous data collection over the 5 years provide examples. One is a fishing village, the second an agricultural area in the midlands, near Trivandrum, Kerala's capital city, the third an agricultural village in the northern highlands. The fishing village and the area in the midlands, but not the village in the highlands reported favorable change over the period in per adult equivalent household income. All three also reported improvement in some but not all the social sectors. The data could be analyzed to explain many of the changes. Thus, the relatively rapid changes that occurred in the fishing village were associated with the mechanization of fishing boats, construction of a sea wall, employment assistance under the government's rural employment program, and income derived from migration to the Gulf States. Even the occurrence of a major tidal flood that destroyed some of the old, defective houses was favorable since it precipitated construction of better dwellings. Under a government scheme the village, previously without clean drinking water was provisioned during the period with chlorinated water.

Income in the two other areas depended largely on casual employment in agriculture (supplementing income from mainly small plots of land owned by households) and to this extent was much more affected than in the fishing village by a decline that occurred in the demand for occasional labor. This decline was offset by a rise in real wage rates in the midlands village but much less so in the highland village. As regards non-income components of levels of living electricity provides another example of the influence of geographical identity. Generally, whether a household is connected to the power grid was found to vary with its income. However, because installation is much more difficult in the widespread highland, than in the more accessible coastal and midland, areas (with highly concentrated populations) for given incomes, there is considerable variation among the areas. The highland village in this instance received electricity only as from 1982, and only a very small number of households (5 %) had been connected by 1984.

India, in large part as a result of its exemplary National Sample Survey (NSS), provides excellent data which a Monitoring Service would not wish to duplicate. Statewise estimates, such as infant mortality rates, for example, are more efficiently collected by the national sample registration system which in Kerala works well. However, the DMS is in a favorable position where planners require explanations, as in the above examples. It is in this sense a hybrid or compromise between in-depth studies, on the one hand, and sample surveys or censuses, on the other hand. No one village or town study is representative on its own. However, the DMS proposes to give a series of composite pictures which, accumulated over a dozen cases or so, help in making state level decisions in a way that either of the conventional data sources would find difficulty in doing.

This work continued until 1986 when this author retired from UNRISD (work during this period related to measurement of levels of living was published in Scott, 2004). DMS was left as a proposal to be pursued or not by the various national statistical and planning offices that had been contacted, many of which, especially the planning offices, had shown an interest. UNICEF continued related work in Indonesia the southern Sudan and Zimbabwe. There was no follow-up elsewhere. As noted above, UNRISD itself had meanwhile turned its attention and finance to other lines of enquiry.

UNRISD as a Catalyst in Innovative Research

The examples above may demonstrate two things: first, how a relatively small research institute, with

limited staff and resources, may nonetheless pursue innovative research of potential value in socioeconomic development. Second, however, that new ideas (and novelty is not always welcome, especially in conservative sectors, such as statistics) are tender plants that need patient care and a relative long period of maturation. Due to changes in staff, a reorientation of research priorities, and total dependence on voluntary funding as the price for autonomy, UNRISD was unable to sustain its work in the field of social indicators. In subsequent decades UNRISD continued to play a catalytic role but did so in other fields of inquiry, including the social effects of environmental change and economic liberalization, gender dimensions of development, corporate social responsibility, and the role of social policy in well-being and poverty reduction (UNRISD, 2003).

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- ▶ McGranahan, Donald
- ▶ United Nations Development Programme

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United Nations Statistical Collections

▶ United Nations Yearbooks, Statistical Collections, and Databases

United Nations Yearbooks, Statistical Collections, and Databases

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Synonyms

United Nations Databases; United Nations Statistical Collections

Definition

The **United Nations** and each of its several dozen specialized agencies, organizations, and training institutes publish a wide variety of time-series materials including **yearbooks, statistical compendia, data sets, country- and region-specific reports, thematic papers, occasional papers**, and other works directly related to the fulfillment of their mission. The vast majority of these documents tend to be available in all six working languages of the United Nations and, with few exceptions, can be downloaded at little to no cost to quality of life researchers.

Description

The United Nations **General Assembly** and each of its specialized agencies and organizations issue a wide range of printed and electronic data reflecting all aspects of the work of the world body. These reports include **yearbooks, statistical compendia, country- and region-specific studies, thematic papers, books, journals, special publications**, and, increasingly,

United Nations Yearbooks, Statistical Collections, and Databases, Table 1 United Nations Databases (including quality of life-related databases)

Primary focus	Continuously updated United Nations Databases
Official documents and bibliographic databases	Official Document System (ODS) UN documentation, daily journal, and daily list of documents
	UN Bibliographic Information System (UNBISnet)
	Catalogue of UN documents, publications, speeches, and voting records
	UNBIS Thesaurus
	Terminology used in subject analysis of documents and other materials relevant to UN programs and activities
	UN Info Quest (UN-I-QUE)
	Document symbols/sales numbers for annual/sessional reports of committees/ commissions; annual publications, etc.
	UN Information System on the Question of Palestine (UNISPAL)
	Materials on the question of Palestine and other issues related to the Middle East situation
	Bibliographic Database of the Economic Commission for Latin America and the Caribbean (ECLAC)
	Bibliographic records of the ECLAC library
Treaties, declarations, and legislative sources	Declarations and conventions contained in general Assembly resolutions
	Instruments contained in general assembly resolutions or their annexes
	Maritime space: legislation and treaties
	1540 Committee legislative database
UN action against terrorism UN members	Counter-terrorism handbook
	UN member states
	Membership of the security council
UN mandates	Mandate registry
Terminology	UN Multilingual Terminology Database (UNTERM)
Multimedia	Webcast
	UNIFEED
	UN in action
	UN photo
	UN radio
	UN publications
Civil society	Integrated civil society organizations system
Climate change	Online inventory of the UN system activities on climate change
Human rights issues	Treaty body database
	Documents of charter-based bodies
Humanitarian issues	Refworld
	ReliefWeb
Nongovernmental Organizations (NGOs)	NGOs associated with Department of Public Information (DPI)
	NGOs in consultative status with the Economic and Social Commission (ECOSOC)
Statistical data	Statistical database of the economic commission for Africa
	Statistical database of the economic commission for Europe
	Social indicators
	Development Goals (MDGs) indicators
	UN Commodity Trade Statistics Database (COMTRADE)
	UNdata
	UN Population Information Network (POPIN)

(*continued*)

United Nations Yearbooks, Statistical Collections, and Databases, Table 1 (continued)

Primary focus	Continuously updated United Nations Databases
Conferences and events	UN news centre
	Press releases
	Calendar of conferences and meetings
Partnerships	Commission on sustainable development partnerships database
Archives	UN archives collections online

United Nations Yearbooks, Statistical Collections, and Databases, Table 2 Quality of life-related statistical and other publications of specialized agencies of the United Nations

Official name (acronym)	Major subdivisions	Location and year established	Major yearbooks and statistical publications	Publication frequency
World Food and Agricultural Organization (FAO)		Italy, Rome, 1945	The State of Food and Agriculture (SOFA)	Annual
			The State of World Fisheries and Aquaculture (SOFIA)	Annual
			State of the World's Forests (SOFO)	Annual
			The State of Food Insecurity in the World (SOFI)	Annual
			The State of Agricultural Commodity Markets (SOCO)	Irregular
			Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Annual
International Civil Aviation Organization (ICAO)		Canada, Montreal, 1947	Catalogue of ICAO publications	Annual
			Summary of various series of ICAO publications and related products	Annual
			Directory of National Civil Aviation Administrations	Annual
			Aircraft Type Designators	Annual
			Aviation Training Directory	Annual
			ICAO Document Series	Annual
			ICAO Journal	Quarterly
			ICAO Machine Readable Travel Document (MRTD) report	Irregular
			ICAO Regional reports	Irregular
			Thematic reports	Irregular
			Occasional papers	Irregularly
			Annual reports	Annual

(*continued*)

electronic databases that easily can be downloaded into MS Word, MS Excel, MS Access, and similar types of proprietary software products. The vast majority of these electronic resources are made available by the United Nations at little or no cost to scholars working in the fields of national and international development—including to those working on issues related to ▶ quality of life theory and research.

This essay is an effort to organize the variety of printed and electronic resources issued by the United Nation that relate directly to quality of life theory, research, and practice. Thus, the four

United Nations Yearbooks, Statistical Collections, and Databases, Table 2 (continued)

Official name (acronym)	Major subdivisions	Location and year established	Major yearbooks and statistical publications	Publication frequency
International Fund for Agricultural Development (IFAD)		Italy, Rome, 1977	Annual report	Annual
			Electronic newsletters	Monthly
			Factsheets	Irregular
			Policy series	Irregular
			Rural poverty report	Annual
			Strategy documents	Irregular
			Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Annual
International Labour Organization (ILO)		Switzerland, Geneva, 1919	Yearbook of labour statistics: trend analyses	Annual
			Yearbook of labour statistics: country profiles	Ongoing
			Global Wage Report (GWR), 2010/2011	Ongoing
			KILM: Key indicators of the labour market	Ongoing
			LABORSTA: database of labour statistics	Ongoing
			CISDOC: occupational health and safety database	Ongoing
			ILOLEX: International labour standards and recommendations	Irregular
			LABORDOC: the ILO's library database	Ongoing
			Labor force surveys	Irregularly
			World Social Security Reports, 2010/11	Quarterly by world region
			International Labour Review	Monthly
			Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Annual
International Maritime Organization (IMO)		UK, London, 1959	Basic Documents (multiple volumes), 2010 Edition	Annual
			Code on Alerts and Indicators 2009, 2010 Edition	Annual
			IAMSAR Manual (multiple volumes), 2010 Edition	Annual
			Shipboard Marine Pollution Emergency Plans, 2010 Edition	Annual
			Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Annual

(*continued*)

tables that follow identify the major organizations and agencies of the United Nations General Assembly and its large network of **organizations and specialized agencies** whose work is devoted to one or another of the United Nations major goals. In general, all of the resources identified in this entry are available in all six **working languages** of the United Nations: Arabic, Chinese, English, French, Russian, and Spanish, albeit English predominates among the electronic data sets. Electronic links to all of the data bases cited are available on the home pages of the respective agency or organization.

Table 1 identifies the electronic **databases** associated with each of the United Nations priority areas, e.g., **world treaties, antiterrorism**

United Nations Yearbooks, Statistical Collections, and Databases, Table 2 (continued)

Official name (acronym)	Major subdivisions	Location and year established	Major yearbooks and statistical publications	Publication frequency
International Monetary Fund (IMF)		USA, Washington D.C., 1945	Fiscal Monitor	Twice yearly
			World Economic Outlook	Annual
			Regional Economic Outlook Reports	Annual
			IMF Economic Review	Annual
			Country Reports	Irregular
			Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Annual
International Telecommunication Union (ITU)		Switzerland, Geneva, 1865	Radio Regulations	Annual
			African/Asia-Pacific Telecommunication/ Information Communications Technology (ICT)	Annual
			A compendium of ITU's work on Emergency Telecommunications Indicators	Ongoing
			African Telecommunication/ICT Indicators	Annual
			Asia-Pacific Telecommunication/ICT Indicators	Ongoing
			World Telecommunication Indicators Database	Ongoing
			Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Annual
United Nations Educational, Scientific and Cultural Organization (UNESCO)		France, Paris, 1945	UNESDOC database	Ongoing
			World Heritage—Archaeological Sites and Urban centres database	Annual
			MUSEUM International database	Annual
			Literacy for All: Making a Difference	Annual
			Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Annual
			Annual	Annual
United Nations Industrial Development Organization (UNIDO)		Austria, Vienna 1985	Industrial Development Report, 2009	Annual
			Breaking In and Moving Up: New Industrial Challenges for the Bottom Billion and the Middle-Income Countries	Irregular
			The Role of Industrial Development in the Achievement of the Millennium Development Goals (MDGs)	Irregular
			Patterns of Internationalization for Developing Country Enterprises (Alliances and Joint Ventures)	Irregular
			Public Goods for Economic Development	Irregular
			Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Annual

(*continued*)

United Nations Yearbooks, Statistical Collections, and Databases, Table 2 (continued)

Official name (acronym)	Major subdivisions	Location and year established	Major yearbooks and statistical publications	Publication frequency
Universal Postal Union (UPU)		Switzerland, Bern, 1874	Postal Statistics	Ongoing
			Universal POST*CODE® Database	Ongoing
			TERMPOST terminology database	Ongoing
			Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Annual
World Bank Group (WBG)		USA, Washington DC, 1945	World Development Report (WDR)	Annual
			Global Economic Prospects, 2010	Annual
			Global Development Finance, 2010	Annual
			Global Development Indicators Database	Ongoing
			Project Documents	Irregular
			Country Reports	Irregular
			Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Annual
	International Bank for Reconstruction and Development (IBRD)	USA, Washington DC, 1944	Online Bookstore	Ongoing
			Database of 80,000 downloadable electronic documents	Ongoing
			World Development Report (WDR)	Annual
			Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Annual
	International Centre for Settlement of Investment Disputes (ICSID)	USA, Washington DC, 1966	ICSID Convention, Regulations and Rules	Annual
			Contracting States and Measures Taken by Them for the Purpose of the Convention (ICSID/8)	Irregular
			Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Annual
	International Development Association (IDA)	USA, Washington DC, 1960	Electronic library of over	Ongoing
			Database of 80,000 electronic documents	Ongoing
			Electronic IMF-World Bank Library	Annual
			World Development Report (WDR)	Irregular
			Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Annual
	International Finance Corporation (IFC)	USA, Washington DC, 1956	Doing Business 2010	Annual
			Country Reports	Irregular
			Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Annual

(*continued*)

United Nations Yearbooks, Statistical Collections, and Databases, Table 2 (continued)

Official name (acronym)	Major subdivisions	Location and year established	Major yearbooks and statistical publications	Publication frequency
	Multilateral Investment Guarantee Agency (MIGA)	USA, Washington DC, 1988	Briefs and Case Studies	Irregular
			Environmental and social sustainability	Irregular
			Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Annual
World Health Organization (WHO)		Switzerland, Geneva, 1948	The World Health Report	Annual
			World Health Statistics	Irregular
			International Travel and Health	Irregular
			International Health Regulations	
			The International Classification of Diseases	Irregular
			International Pharmacopoeia	Irregular
			Bulletin of the World Health Organization (WHO)	Monthly
			Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Annual
World Intellectual Property Organization (WIPO)		Switzerland, Geneva, 1967	Patent search database	Ongoing
			Domain name decisions	Ongoing
			Treaties database	Ongoing
			Development Agenda database	Ongoing
			Thematic papers	Irregular
			Occasional papers	Irregular
			Newsletters (multiple)	3-4 x annually
			Annual report	Annual
World Meteorological Organization (WMO)		Switzerland, Geneva, 1950	WMO Bulletin	Monthly
			MeteoWorld	Monthly
			World Climate News	Monthly
			Showcase	Irregular
			Thematic papers	Irregular
			Occasional papers	Irregular
			Annual report	Annual
World Tourism Organization (UNWTO)		Spain, Madrid, 1974	Manual on Tourism and Poverty Alleviation	Irregular
			Indicators of Sustainable Development for Tourism Destination: A Guidebook	Annual
			Thematic reports	Irregular
			Occasional papers	Irregular
			Manual on Tourism and Poverty Alleviation	Irregular
			Annual report	Annual
Related and comparable organizations International Atomic Energy Agency (IAEA)		Austria, Vienna, 1957	International Standards, Guides and Codes	Annual
			IAEA Documents and Conventions	Annual
			The International Nuclear and Radiological Event Scale (INES)	Irregular
			Factsheets	Irregular
			Thematic reports	Irregular
			Occasional papers	Annual
			Annual report	Annual

(*continued*)

United Nations Yearbooks, Statistical Collections, and Databases, Table 2 (continued)

Official name (acronym)	Major subdivisions	Location and year established	Major yearbooks and statistical publications	Publication frequency
World Trade Organization (WTO)		Netherlands, Hague, 1945	International trade and tariff data	Annual
			Statistics Database	Annual
			International Trade Statistics	Annual
			Comprehensive Tariff Data	Annual
			Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Annual
International Court of Justice (ICJ)		USA, New York, 1945	Judgments, advisory	Ongoing
			Opinions and orders	Ongoing
			Pleadings, oral arguments, documents	Ongoing
			Acts and documents	Annual
			Yearbook	Irregular
			Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Annual

United Nations Yearbooks, Statistical Collections, and Databases, Table 3 Quality of life-related publications of the United Nations General Assembly

Official name (acronym)	Major subdivisions	Location and year established	Major yearbooks and publications	Publication frequency
Human Rights Council (HRC)		Switzerland, Geneva, 2006	Statements and audio files	Ongoing
			Live webcasts and archives	Ongoing
			Press releases	Ongoing
			Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Annual
United Nations Conference on Trade and Development (UNCTAD)		Switzerland, Geneva, 1964	UNCTAD Stat	Annual
			UNCTAD Handbook of statistics, 2009	Annual
			Trade and Development Report (TDR)	Annual
			World Investment Report (WIR)	Annual
			Development and Globalization: Facts and Figures (DGFF)	Annual
			Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Annual
	International Trade Centre (ITC)	USA, Washington DC, 1944	World Export Development Forum	Annual
			Trade for the Millennium Development Goals (MDGs)	Annual
			Empowering Women—Powering Trade	Irregular
			Thematic reports	Irregular
			Occasional papers	Annual
			Annual report	Annual

(*continued*)

United Nations Yearbooks, Statistical Collections, and Databases, Table 3 (continued)

Official name (acronym)	Major subdivisions	Location and year established	Major yearbooks and publications	Publication frequency
United Nations Office on Drugs and Crime (UNODC)		Austria, Vienna, 1997	Data and analysis	Ongoing
			World Drug Report	Annual
			Crop monitoring	Irregular
			Crime statistics	Irregular
			Thematic reports	Annual
			Occasional papers	Irregular
			Annual report	Annual
United Nations Development Programme (UNDP)		USA, New York, 1965	Human Development Report (HDR)	Annual
			Regional Human Development Reports	Periodic
			Country Human Development Reports	Irregular
			Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Annual
	United Nations Office for Project Services (UNOPS)	Denmark, Copenhagen, 1974	2009 Annual Statistical Report on UN Procurement	Annual
			UNOPS Strategic Plan	Periodic
			Fact Sheets	Irregular
			Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Annual
	United Nations Capital Development Fund (UNCDF)	USA, New York, 1966	World reports	Periodic
			Regional reports	Irregular
			Country-specific reports	Irregular
			Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Annual
	United Nations Development Fund for Women (UNIFEM)[a]	USA, New York, 1976	UNIFEM Resources on Women, Peace and Security (Resource Kit)	Periodic
			Ending Violence against Women and Girls: UNIFEM Strategy and Information Kit (Resource Kit)	Periodic
			Women Count for Peace: The 2010 Open Days on Women, Peace and Security (Assessment)	Irregular
			Thematic reports	Irregular
			Occasional papers	Annual
			Annual report	Periodic
	United Nations Volunteers (UNV)	Germany, Bonn, 1971	Country-specific assessment	Ongoing
			Press releases	Ongoing
			Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Annual

(*continued*)

activities, UN mandates, civil society, and climate change. These databases are updated continuously and all are open to development-focused scholars. Table 2 identifies the major print and electronic resources of the United Nations' specialized agencies and organizations, e.g., the **Food and Agricultural Organization** (FAO), the **International Labour Organization** (ILO),

United Nations Yearbooks, Statistical Collections, and Databases, Table 3 (continued)

Official name (acronym)	Major subdivisions	Location and year established	Major yearbooks and publications	Publication frequency
United Nations Environment Programme (UNEP)		Kenya, Nairobi, 1972	UNEP Yearbook, 2010	Annual
			Atlases	Irregular
			Periodicals	Periodic
			Interactive e-books	Irregular
			Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Annual
United Nations Fund for Population Activities (UNFPA)		USA, New York, 1969	State of World Population	Ongoing
			Reports	Annual
			Data and Statistics	Annual
			Population and Development	Annual
			Financial Resource Flows For Population Activities	Annual
			Financing the ICPD Programme of Action	Annual
			Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Annual
Office of the United Nations High Commissioner for Refugees (UNHCR)		Switzerland, Geneva, 1950	The State of the World's Refugees	Annual
			The Global Appeal	Annual
			The Global Report	Annual
			Legal Publications	Ongoing
			Operational Publications	Ongoing
			Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Annual
United Nations Human Settlements Programme (UN-HABITAT)		Kenya, Nairobi, 1978	Urban Development and Management	Irregular
			Land and Housing	Irregular
			Environment and Climate Change	Irregular
			Water Sanitation and Infrastructure	Irregular
			Urban Economy and Financing Shelter	Irregular
			Risk and Disaster Management	Irregular
			Social Inclusion	Irregular
			Information and Monitoring	Irregular
			Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Annual
United Nations Children's Fund (UNICEF)		USA, New York, 1946	The State of the World's Children	Irregular
			Meeting the Millennium Development Goals (MDGs) with Equity	Irregular
			UNICEF in Emergencies	Irregular
			Twenty years of the Convention on the Rights of the Child	Irregular
			Unite for Children, Unite against AIDS	Irregular
			Country Reports	Irregular
			Thematic reports	Irregular
			Occasional papers	Irregular

(*continued*)

United Nations Yearbooks, Statistical Collections, and Databases, Table 3 (continued)

Official name (acronym)	Major subdivisions	Location and year established	Major yearbooks and publications	Publication frequency
			Annual report	Annual
World Food Programme (WFP)		Italy, Rome, 1960	Food Aid Information System	Irregular
			Revolution: From Food Aid to Food Assistance	Irregular
			Fact Sheets	Irregular
			Policy and Outreach Papers	Irregular
			Strategic plans	Irregular
			Thematic reports	Irregular
			Regional reports	Irregular
			Country reports	Irregular
			Occasional papers	Irregular
			Revolution: From Food Aid to Food Assistance	Irregular
			Annual report	Annual
United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA)		1950	The UN and UNRWA Statistics	Ongoing
			Health annual report 2009	Ongoing
			Press releases	Annual
			Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Irregular
			Health annual report 2009	Annual

[a]Effective January 1, 2011, the UN Division for the Advancement of Women (DAW), the International Research and Training Institute for the Advancement of Women (INSTRAW), the Office of the Special Adviser on Gender Issues and the Advancement of Women (OSAGI), and the UN Development Fund for Women (UNIFEM) were merged into UN WOMEN

United Nations Yearbooks, Statistical Collections, and Databases, Table 4 Quality of life-related publications of research and training institutes of the United Nations system

Official name (acronym)	Major subdivisions	Location and year established	Major yearbooks and publications	Publication frequency
International Research and Training Institute for the Advancement of Women (INSTRAW)		Dominican Republic, Santo Domingo, 1979	Gender, Peace and Security	Irregular
			Gender, Migration and Development	Irregular
			Gender, Governance and Political Participation	Irregular
			Financing for Development	Irregular
			Capacity Building	Irregular
			New Voice Series	Irregular
			Special Collections	Irregular
			Beijing Review	Irregular
			Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Annual

(*continued*)

United Nations Yearbooks, Statistical Collections, and Databases, Table 4 (continued)

Official name (acronym)	Major subdivisions	Location and year established	Major yearbooks and publications	Publication frequency
United Nations Interregional Crime and Justice Research Institute (UNICRI)		Italy, Turin, 1967	UNICRI Series	Irregular
			Issues and reports	Irregular
			Special editions	Irregular
			Freedom From Fear Magazine	Irregular
			Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Annual
United Nations Institute for Training and Research (UNITAR)		Switzerland, Geneva, 1965	General Assembly Resolutions	Irregular
			Economic and Social Council Resolutions	Irregular
			Reports of the UN Secretary-General	Irregular
			Reports of the Executive Director	Irregular
			Strategic plans	Irregular
			Newsletters	Regular
			Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Annual
United Nations Research Institute for Social Development (UNRISD)		Switzerland, Geneva, 1963	Book Series	Irregular
			Research and Policy Briefs	Irregular
			Conference News	Irregular
			Programme Papers	Irregular
			Briefing Papers	Irregular
			Occasional papers	Irregular
			Annual report	Annual
United Nations Institute for Disarmament Research (UNIDIR)		Switzerland, Geneva, 1980	Disarmament Forum	Irregular
			Book Series	Irregular
			Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Annual
Other United Nations Entities				
International Computing Centre (ICC)		Switzerland, Geneva, 1971	Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Annual

(*continued*)

the **United Nations Educational, Scientific and Cultural Organization** (UNESCO), the **United Nations Environment Programme** (UNEP), among many others. The great majority of these materials are available in both print and electronic formats. In most cases, the United Nations statistical data archives identified in this entry may be downloaded directly into MS Excel or similar software programs for secondary data analysis.

Table 3 identifies the major publications and data sources of the General Assembly itself, e.g.,

United Nations Yearbooks, Statistical Collections, and Databases, Table 4 (continued)

Official name (acronym)	Major subdivisions	Location and year established	Major yearbooks and publications	Publication frequency
Joint United Nations Programme on HIV/AIDS (UNAIDS)		Switzerland, Geneva, 1994	Report on the Global	Irregular
			AIDS Epidemic	Irregular
			Epidemiology	
			Methodology	Irregular
			Confidentiality and Security of HIV Information	Irregular
			Monitoring Country Progress	Irregular
			Tracking Report	Irregular
			Occasional papers	Annual
United Nations System Staff College (UNSSC)		Switzerland, Geneva, 2002	Leadership	Irregular
			UN Coherence at the Country Level	Irregular
			Monitoring and Evaluation	Irregular
			Social and Economic Development	Irregular
			Conflict Prevention and Peace Building	Irregular
			Staff Safety and Security	Irregular
			Staff Orientation	Irregular
			Annual report	Irregular
			Conflict Prevention and Peace Building	Irregular
			Annual report	Annual
United Nations University (UNU)		Japan, Tokyo, 1973	Book Series: UNU Press, Tokyo	Irregular
			Reports of the Executive Director	Irregular
			Strategic plans	Irregular
			Food and Nutrition Bulletin	Quarterly
			Global Environmental Change	Quarterly
			Global Governance	Quarterly
			Mountain Research and Development	Quarterly
			Sustainability Science	Irregular
			Newsletters	Regular
			Conference Papers	Irregular
			Thematic reports	Irregular
			Occasional papers	Irregular
			Annual report	Annual

(*continued*)

United Nations Yearbooks, Statistical Collections, and Databases, Table 4 (continued)

Official name (acronym)	Major subdivisions	Location and year established	Major yearbooks and publications	Publication frequency
United Nations University, World Institute for Advanced Economic Research (UN-WIDER)		Finland, Helsinki, 1984	Books & Journal Series	Irregular
			Working Paper	Irregular
			Policy Briefs	Irregular
			Annual Lectures	Irregular
			Newsletter	Irregular
			Annual report	Annual

Sources: United Nations (2010b, c) and websites of individual UN Research and Training Institutes. Accessed December 14, 2010

the newly reconstituted **Human Rights Council** (HRC), the **United Nations Commission on Trade and Development** (UNCTAD), the **United Nations Environment Programme** (UNEP), and the newly organized **UN Women**. These reports are supplemented by the databases identified in Table 1. The listings summarized in Table 4 both identify the major research and training institutes of the United Nations as well as the types of resources that may be obtained from them, e.g., the ► **United Nations Research Institute for Social Development** (UNRISD), the **United Nations HIV/AIDS Programme** (UNAIDS), the **United Nations University**, with its many decentralized branches (UNU), and the **UNRISD**.

Cross-References

► Social Indicators

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Websites of the individual United Nations organizations and specialized agencies.

Units of Analysis

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Synonyms

Complex data; Level of analysis; Nested data

Definition

In quality of life research, data are often structured in a nested or hierarchical manner (i.e., different units). Multilevel unit of analysis allows researchers to investigate the association and interaction between variables at different units or levels.

Description

Research in quality of life has become more advanced. Quality of life research often involves investigating the relationships and interactions between individuals and the group to which they belong. Individuals often influence the group they belong to, and the group also influences the people who are part of that group. For example, in cross-national happiness research, the population

consists of countries and people within these countries. In this example, people are nested within countries. In this type of research, the population data are structured in a nested or hierarchical manner, and the sample data are sampled from the hierarchical or nested population. Researchers interested in the cross-national comparison of happiness would draw a sample of countries, followed by a sample of people within these countries. Such an approach can be viewed as "samples of samples." Other examples include:

1. In group psychotherapy, client-level data are nested within counseling groups.
2. In family counseling, data from individual family members are nested within families.
3. In education, student-level data are nested with classroom, classroom-level are nested within schools, and school-level data are nested within school boards.
4. In sociology, individual income data are nested within cities, and city-level data are nested within states.
5. In medicine, patient-level data are nested within hospitals, and hospital-level data are nested within health authorities.
6. In human resources management, employee-level data are nested within departments, and department-level data are nested within companies.

When researchers want to investigate the relationships and interactions between variables at the individual and at the group level, *multilevel unit of analysis* (also called *multilevel design*, *multilevel analysis*, or *hierarchical linear modeling*) is needed.

There are several reasons why such data need to be analyzed and interpreted using the multilevel approach. When individual-level data are aggregated and analyzed as group-level data, information is lost and statistical power is reduced. On the contrary, when group-level data are disaggregated and analyzed as individual-level data, the chance of making a type I error is increased (i.e., more likely to reject the null hypothesis when one should not).

Thus, if the data are analyzed at the group level but conclusions are drawn at the individual level, the inferences made may be misleading. This is called *atomistic fallacy*. On the other hand, if data are analyzed at the individual level but conclusion drawn at the group level, the inferences may also be incorrect. This is referred to as the *Robinson effect* or *ecological fallacy*.

The statistical procedure widely known as hierarchical linear modeling (HLM) can be used for analyzing multilevel data (Hox, 2010; Raudenbush & Byrk, 2002). Other applications of HLM include longitudinal or growth curve research (repeated-measures data are nested within an individual) and meta-analysis (data from individual studies are nested within studies). Readers interested in the statistical issues of HLM should refer to Hox (2010) and Raudenbush and Bryk (2002). For those who are interested in the current thinking of the multilevel approach to measurement validation, please refer to an excellent book chapter by Zumbo and Forer (2011).

Cross-References

- ▶ Data Analysis
- ▶ Linear Regression Model
- ▶ Nonparametric Analysis
- ▶ Parametric Analysis
- ▶ Robust Statistical Tests

References

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Univariate Analysis

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Definition

Univariate analyses are used extensively in quality of life research. Univariate analysis is defined as analysis carried out on only one ("uni") variable ("variate") to summarize or describe the variable (Babbie, 2007; Trochim, 2006). However, another use of the term "univariate analysis" exists and refers to statistical analyses that involve only one *dependent* variable and which are used to test hypotheses and draw inferences about populations based on samples, also referred to as univariate statistics (Tabachnick & Fidell, 2007). This encyclopedia entry focuses on the first definition.

Univariate analyses are contrasted with bivariate analyses (analyses involving two variables) and multivariate analyses (analyses of two or more variables simultaneously).

Two examples of research that present results of univariate descriptive analyses are Michalos and Zumbo (1999) and Tjia, Givens and Shea (2005).

Description

Univariate analysis is a relatively simple yet fundamental type of quantitative analysis used to summarize or describe one variable at a time across cases (Babbie, 2007; Trochim, 2006). Univariate analyses are conducted for the purpose of making data easier to interpret and to understand how data is distributed within a sample or population being studied. Univariate analyses are also commonly used to screen data and evaluate whether data meets required assumptions or criteria for other more complex statistical analyses. As such they are often reported as preliminary analyses in research studies that address the complex interrelations and interactions between multiple variables as are commonly investigated in quality of life studies.

There are three main types of univariate analyses: calculations of frequencies, ▶ central tendency, and ▶ dispersion, each of which is briefly explained here. (For more detailed descriptions of ▶ central tendency and ▶ dispersion, please refer to the separate entries in this encyclopedia.)

Frequencies: Frequency refers to the number of times an event or result is observed in the data, such as the number of times a particular score occurred. It is also possible to calculate relative frequencies, that is, the number of students who achieved each particular score divided by the total number of students in the study, sometimes expressed as a percentage. Relative frequencies are easier to interpret than frequencies expressed as simple counts. It is also possible to report frequency distributions and relative frequency distributions for grouped data, for example, the number or percentage of students who scored within a particular score range (such as between 0 and 10 or between 11 and 20). Frequency distributions are often presented visually in the form of a bar chart, histogram, or stem and leaf display (see also "▶ Graphical Presentation of Frequency Distribution of Ordinal Data").

Central Tendency: Measures of ▶ central tendency are simple statistical models that provide information about the typical, representative, or average score in a distribution. Although other measures of ▶ central tendency exist, the most frequently used are the mean, median, and mode.

The mode is the value that occurs most frequently in a data set. The median is the middle value in a distribution, the 50th percentile of the distribution. The mean is the average of all of the values in a data set, which is calculated by summing the values and dividing by the number of observations. The mean is the most frequently reported measure of ▶ central tendency.

While it is often possible to calculate a mean, a median, and a mode for a particular data set, there are times when one measure of ▶ central tendency is preferred over the others. For example, the mean is particularly affected by ▶ outliers (extreme data points), whereas the median is not. The median is preferred over the mean in instances where the data is not normally distributed (see "▶ Univariate Normal Distribution"), where there are ▶ outliers, when there are unknown or missing data points, or where the data is measured on an ordinal scale. The mode is preferred when data are measured on a nominal scale (Gravetter & Wallnau, 2004).

Dispersion: Another characteristic of data that can be examined using univariate analyses is the way the data is spread out, or dispersed, around the central tendency. Another term for ▶ dispersion is variability. Common statistical calculations of variability include the range, variance, and standard deviation. A brief description of each follows; however, more thorough descriptions of both ▶ dispersion and standard deviation are found in separate entries in this encyclopedia.

The range is the difference between the largest score and the smallest score in a distribution. Because it is based on only two score values (the largest and smallest), the range ignores the remaining score values and does not provide any information about how the data is spread between the smallest and largest values. For this reason it is said to be a crude measure of dispersion (Glass & Stanley, 1970). Sometimes an interquartile range or semi-interquartile range is computed. The interquartile range is the range covered by the middle 50 % of a distribution (it ignores the top 25 % and bottom 25 % of the distribution). The semi-interquartile range, which is one-half of the interquartile range, measures the distance from the middle of the distribution (the median) to the boundaries of the middle 50 % of the distribution.

Variance refers to the spread of data around the mean value. Unlike the range, all score values are used in the calculation of variance. Variance is the mean squared deviation of each data point from the mean of the data set. The definitional formula for variance is:

$$Variance = \frac{\sum (X - \mu)^2}{N}$$

where X represents the observed score values, μ represents the mean score for the data set, and N represents the total number of observed scores in the data set. It is relatively easy to calculate the variance using this formula for small data sets, especially if the mean is a whole number, but it would be extremely laborious for a large data set containing perhaps hundreds or thousands of scores, especially if the mean is not a whole number. In this case, we can simplify the calculation using a computational formula for the sum of squares (the numerator in the above formula) as follows:

$$Variance = \frac{\sum X^2 - \frac{\left(\sum X\right)^2}{N}}{N}$$

which produces precisely the same result as the definitional formula for sum of squares shown above.

The numerical value for variance is not particularly helpful in conceptualizing the spread of data around the mean, in part because scores are squared in order to calculate variance with the result that variance is not in the same metric as the original scores. It should be noted however that estimates of variance form the basis of most other statistical analyses and as such variance is a very important characteristic of data. Variance is used to calculate the standard deviation which is easier to conceptualize than variance.

Standard deviation is the most important and the most commonly used measure of dispersion (Gravetter & Wallnau, 2004). It is the square root of the variance:

$$Standard\ Deviation = \sqrt{Variance}$$

Standard deviation provides us with an idea of the typical distance of scores from the mean. Importantly, it is in the same metric as the original scores so is easier to interpret than variance.

It is important to note that if the intent is to draw inferences from a sample to the whole

population from which the sample was drawn (referred to as statistical inference), the calculations for variance and standard deviation are adjusted to account for potential bias in the sample (i.e., that the variance in the sample likely will not be identical to the variance in the full population). In this case, the denominator in the formula for variance is reduced from "N" to "N-1." This results in a larger estimate of variance (which is said to be an unbiased estimator of population variance) and a slightly larger standard deviation.

Cross-References

- Bivariate Analysis
- Central Tendency
- Dispersion
- Graphical Presentation of Frequency Distribution of Ordinal Data
- Inference, Statistical
- Outliers
- Parametric Analysis
- Standard Deviation(s)
- Univariate Normal Distribution
- Univariate Tests

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Univariate Normal Distribution

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Synonyms

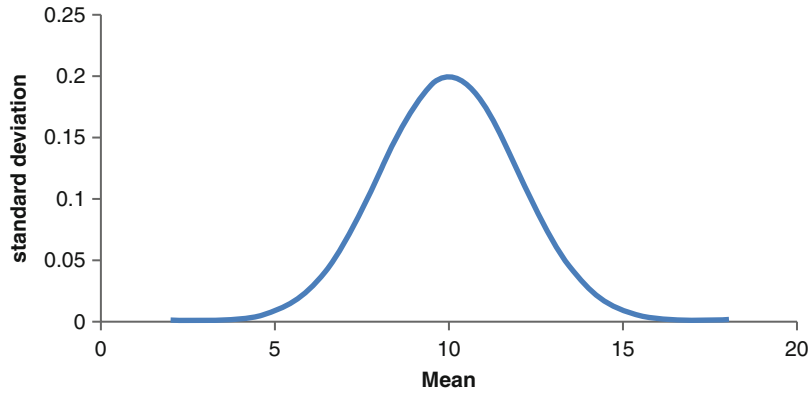
Gaussian distribution; Normal distribution

Definition

The normal distribution is a widely used probability distribution to describe samples, populations, and sampling distributions of statistics.

Description

In most of the inferential statistical analyses, one of the important assumptions is the assumption of multivariate normality. Multivariate normality is the assumption that each variable and all linear combinations of the variables are normally distributed (Tabachnick & Fidell, 2007, p. 78). When this assumption is violated, results derived from statistical analysis may not be reliable and valid. For example, multivariate normality of ordinal variables is a condition for the testing of measurement invariance or construct equivalence using the maximum likelihood estimation method of multiple-group confirmatory factor analysis (Byrne, 1998: Koh & Zumbo, 2008). Tests for checking multivariate normality are overly sensitive, and hence, researchers are encouraged to check for univariate normality, which is the distribution of each individual variable rather than the distribution of an infinite number of linear combinations of variables. The normal or Gaussian distribution is a bell-curved model, which shows symmetric, continuous distribution and is described by two parameters, namely, the mean and the standard deviation (see Fig. 1).



Univariate Normal Distribution, Fig. 1 The normal distribution

The normal distribution is an approximation to the distribution of values or scores of a characteristic, for example, IQ scores or mathematics achievement scores. The exact shape of the normal distribution depends on the mean and the standard deviation of the distribution. The mean is a measure of central tendency, which describes the most typical value in a sample. The standard deviation is a measure of dispersion, which indicates the amount of departure of the values from the mean.

The normality of individual variables is assessed by either graphical or statistical methods. Graphical methods allow for visualization of the distributions of random variables, whereas numerical methods provide descriptive statistics or statistical tests of normality of random variables. The two most commonly used descriptive statistics of univariate normal distribution are skewness and kurtosis. Skewness indicates the extent of the normality of a variable and a skewed variable is a variable whose mean is not in the center of the distribution.

When a variable is normally distributed, the values of both skewness and kurtosis are zero. The ratio of each statistic to its standard error can be used as a test of normality. Values of skewness and kurtosis that fall within the range of −2 and +2 indicate univariate normality. There are two types of skewness: (1) positive skewness and (2) negative skewness. A positively skewed variable has a pileup of cases to the left and the right tail is too long. In contrast, a negatively skewed variable has a pileup of cases to the right and the left tail is too long. Kurtosis is related to the peakedness of a distribution. When a variable has a positive kurtosis, its distribution is too peaked. A negative kurtosis refers to a distribution that is too flat. A variable can have significant skewness, kurtosis, or both (Tabachnick & Fidell, 2007, p. 79). Skewness and kurtosis statistics are sensitive to anomalies or outliers in the distribution. As such, they must be examined in conjunction with other graphical methods such as a histogram, boxplot, or stem-and-leaf diagram. Most of the statistical tests of univariate normality are also sensitive to large sample size. For small to moderate samples, conventional but conservative alpha levels (.01 or.001) are used to evaluate the significance of skewness and kurtosis with small to moderate samples. But for large sample sizes, tests of univariate normality using the skewness or kurtosis ratio can be sensitive even though when there are only minor deviations from normality (Tabachnick & Fidell, 2007).

Typically, skewness, kurtosis, histogram, boxplot, or stem-leaf diagram is used in the stage of exploratory data analysis prior to the application of inferential statistics. There are also theory-driven graphical and numerical methods for evaluating univariate normality. Two graphical methods are P-P and Q-Q plots. Some of the numerical methods include the Shapiro-Wilk and Kolmogorov-Smirnov tests. These various methods are available in SPSS frequencies, descriptives, or explore.

Both P-P and Q-Q plots can be generated in two ways: expected normality plots (Chambers, Cleveland, Kleiner, & Tukey, 1983) and detrended normal probability plots. If a variable has a normal distribution, the expected normality plot of the variable will show that all cases fall along the diagonal line running from lower left to upper right. An alternative method for checking univariate normality is the detrended normal probability plots. If a variable has a normal distribution, the detrended normal probability plot will show that all cases distribute themselves evenly above and below the horizontal line that intersects the Y axis at 0.0, the line of zero deviation from expected normal value (Tabachnick & Fidell, 2007).

Cross-References

- ▶ Confirmatory Factor Analysis (CFA)
- ▶ Interval Scale
- ▶ Measurement Invariance
- ▶ Representative Sample
- ▶ Study Population
- ▶ Univariate Tests

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Univariate Statistical Tests

- ▶ Univariate Tests

Univariate Tests

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Synonyms

Analysis of variance; Hypothesis tests; Regression; Univariate statistical tests

Definition

Tests of statistical hypotheses are widely used in quality of life research. The expression "univariate tests" is typically used as a shorthand for "univariate statistical tests." Univariate statistical tests are those tests that involve one dependent variable. Examples include t-tests of means, analysis of variance (ANOVA), analysis of covariance, linear regression, and generalized linear models such as binary logistic regression. In all of these cases, there is only one dependent variable. By contrast, methods such as multivariate analysis of variance (MANOVA), multivariate analysis of covariance (MANCOVA), and canonical correlation are all examples of multivariate tests used in ▶ multivariate statistical analysis.

Description

An essential distinguishing feature of univariate tests is the hypothesis under investigation. Statistical tests such as the *t*-test or ANOVA focus on the differences (or conversely the equality) among means. For example, the univariate independent samples *t*-test tests the equality of means between two independent groups, whereas the multivariate analogue (Hotelling's T-squared) tests the equality of group centroids (i.e., multivariate means). The seminal paper by Huberty and Morris (1989)

describes the various situations wherein one may choose to use univariate tests as opposed to multivariate tests.

Cross-References

- ▶ Univariate Analysis
- ▶ Univariate Normal Distribution

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Universal and Inalienable Rights

- ▶ Human Rights

University of Michigan Consumer Sentiment Index

- ▶ Consumer Confidence Index

University of Toronto Quality of Life Research Unit

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Brief History

The Quality of Life Research Unit (QOLRU) was established in 1991 at the University of Toronto in Toronto, Ontario, Canada, within the Centre for Health Promotion. The co-founders included Dr. Irving Rootman, Dr. Rebecca Renwick (currently Director) and Dr. Dennis Raphael. The QOLRU is now part of the Department of Occupational Science and Occupational Therapy, University of Toronto. Its main goals are to conduct research and disseminate material (e.g., findings, instruments, manuals) on ▶ quality of life for individuals and groups (e.g., families and communities). The QOLRU also provides education, knowledge translation, and consultation to other researchers and organizations in Canada and internationally.

The catalyst for its founding was a multi-year research study to develop a conceptual model and instruments based on its which were then used to investigate quality of life for adults with intellectual/developmental disabilities living in various residential settings in Ontario, Canada's largest, most populous province (Renwick, Brown, & Rafael, 2000; Renwick, 2004). However, the continuing impetus for its work has been the recognition that quality of life is a rich, complex, multi-layered concern of human beings that can be understood from multiple perspectives and applied in diverse ways to benefit individuals, communities, and societies (e.g., Raphael et al., 2001). Originally, the work of the QOLRU was grounded in theoretical frameworks and principles of health promotion, including the social determinants of health as embodied in the Ottawa Charter for Health Promotion (World Health Organization, 1986) and the social science literature. However, its guiding principles have been steadily and increasingly changing and developing since then. The current foundational values and guiding principles of the QOLRU are informed more by social science and rooted in a critical social perspective on disability, social justice, and full, meaningful inclusion in society for people with and without disabilities. The focus of and methodology used in the research and other activities currently carried out at the QOLRU is consistent with these values and guiding principles.

Activities/Major Accomplishments/ Contributions

The QOLRU has used qualitative research methods to develop two wholistic models of quality of life, one for adults with and without disabilities (Renwick, 2004; Renwick et al., 2000)

and one for children with disabilities (Renwick, Fudge Schormans, & Zekovic, 2003). They are now commonly referred to as the Being, Belonging, Becoming models, which reflect the names of their major elements. The models are based on a conception of quality of life that goes far beyond health to encompass aspects of daily life that have been identified as meaningful to individuals. A family of instruments based on the model for adults has been developed for, tested with, and used in research about a number of groups and populations, including adults with intellectual/developmental disabilities, physical and sensory disabilities, and with schizophrenia, as well as adults in the general population. An instrument based on the children's model has also been developed, tested, and used in research with parents of children with disabilities (Renwick et al., 2003). In addition, the QOLRU has conducted research about family quality of life and quality of life within communities (e.g., Raphael et al., 2001).

The development and use of participatory methodology to elicit voices of those who are rarely represented in or absent from the literature have been, and are increasingly, hallmarks of the QOLRU's work (e.g., Renwick & Fudge Schormans, 2011). For example, recent work includes using innovative approaches to eliciting the voices of children with intellectual/developmental disabilities about their own quality of life and the perspectives of adults with intellectual/developmental disabilities about how their lives and the quality of their lives are portrayed in the media.

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University of Washington Quality of Life Questionnaire

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Synonyms

UW-QOL

Definition

The University of Washington Quality of Life Questionnaire (UW-QOL) is a self-administered scale measuring health-related quality life specifically for head and neck cancer patients.

Description

The UW-QOL is a scale measuring health-related quality of life (HRQL) of patients who have received treatment for head and neck cancer. Since head and neck cancer causes profound detrimental effects on a patient's well-being, understanding the patient's own evaluation is critical for assessing the outcome of clinical treatment.

Since its original publication in 1993, the UW-QOL has undergone three main revisions (Rogers et al., 2002). Version 1 contained nine domain-specific questions and a free-text section for additional information (Hassan & Weymuller, 1993). The original nine domains were as follows: pain, appearance, activity, recreation, swallowing, chewing, speech, shoulder, and employment. In version 2, three global quality of life items and one question rating the importance of the 12 domains were added. In version 3, taste and saliva questions were added, while the employment item was deleted (Weymuller, Alsarraf, Yueh, Deleyiannis, & Coltrera, 2001). To address emotional aspects of quality of life, mood and anxiety domains were added to the latest version (Rogers et al., 2002).

The UW-QOL version 4 (UW-QOL v4), the latest version, has four sections: 12 domain-specific questions, an importance rating among 13 domains, three questions on global quality of life, and a free-text section to describe additional issues.

Domain-specific questions include a patient's evaluation of the following 12 domains: pain, appearance, activity, recreation, swallowing, chewing, speech, shoulder, taste, saliva, mood, and anxiety. Respondents are asked to answer each domain-specific quality of life question over the past 7 days. Each question is based on discrete ordinal responses whose scores range from 0 (dysfunctional or lowest level) to 100 (normal or highest level). Response categories vary across domains, and the numbers of possible response categories range from three to six.

For example, pain, appearance, activity, recreation, and mood have five response categories with scores of 100, 75, 50, 25, and 0. The response categories and the scores for the pain domain are "I have no pain (100)," "There is mild pain not needing medication (75)," "I have moderate pain – requires regular medication (e.g., paracetamol) (50)," "I have severe pain controlled only by prescription medication (e.g., morphine) (25)," and "I have severe pain, not controlled by medication (0)." For appearance, the response categories are "There is no change in my appearance (100)," "The change in my appearance is minor (75)," "My appearance bothers me but I remain active (50)," "I feel significantly disfigured and limit my activities due to my appearance (25)," and "I cannot be with people due to my appearance (0)." Swallowing, speech, shoulder, taste, saliva, and anxiety have four response categories with scores of 100, 70, 30, and 0. Chewing has three response categories with scores of 100, 50, and 0.

After the 12 domain-specific questions, the UW-QOL v4 acquires the most important domains to patients during the past 7 days. Patients are to choose up to three domains.

Three general quality of life questions ask the patients' evaluation of their current health-related quality of life compared to the period before developing cancer, health-related quality of life during the past 7 days, and overall quality of life including non-health-related factors important to the enjoyment of life.

Finally, as an open text format, respondents are asked to describe medical or nonmedical issues important for their quality of life.

Subscales

The 12 domains of the UW-QOL v4 can be grouped into two subscales: physical function and social-emotional function (Rogers et al., 2010). Physical function includes chewing, swallowing, speech, taste, saliva, and appearance, while social-emotional function consists of anxiety, mood, pain, activity, recreation, and shoulder function. The use of subscales is advisable for enhancing sensitivity and responsiveness of scale. Overall, social-emotional function is regained about 1 year after surgery in general, while physical function takes more time to recover.

Strength

The UW-QOL is a highly recommended and widely used measure. The British Association of Head and Neck Oncologists has recommended to adopt the UW-QOL for a HRQL measure (http://www.bahno.org.uk/bulletin.htm#quality). According to a study based on a national survey of UK consultant clinicians, about 29 % of health consultants have collected HRQL questionnaires (55 out of 191 consultants), and 65 % of them have used the UW-QOL (Kanatas & Rogers, 2004).

Its simplicity in scoring, the brevity of the questionnaire, and clinical relevance promote the wide use of the UW-QOL in clinical settings (Hassan & Weymuller, 1993; Rogers & Lowe, 2009). Patients favored the UW-QOL version 1 over the Sickness Impact Profile scale for its conciseness and easiness to complete (Hassan & Weymuller, 1993). The UW-QOL is easy for patients and caretakers to understand in projecting posttreatment changes in health and quality of life (Rogers, Scott, Chakrabati, & Lowe, 2008). At the same time, the UW-QOL is a suitable tool for screening cases in need of further intervention during the routine clinical checkup. Based on compiled dataset on UW-QOL v4 between 2000 and 2006, Rogers and Lowe (2009) have suggested the cutoff points for future intervention in routine clinical practice.

Validity and Reliability

The UW-QOL v4 has high validity and reliability. It has strong internal consistency (the Cronbach's alpha = 0.86), and the exclusion of any domain did not change the alpha coefficients significantly (Rogers et al., 2002). Correlations between composite scores of versions 1, 2, 3, and 4 were strong ($r = 0.94$–0.99). Four domains of the UW-QOL v4 (taste, saliva, mood, and anxiety) were significantly correlated to respective domains of European Organization for Research and Treatment for Cancer questionnaire. The UW-QOL has clinical validity since it is responsive in expected directions to previously proven factors of head and neck cancer such as patients' age, cancer site, cancer stage, receipt of radiotherapy, and types of surgery (Rogers et al., 2002; Rogers & Lowe, 2009; Rogers, Lowe, & Weymuller, 2010).

Validation in Non-English Languages

The UW-QOL v4 has been translated into several non-English languages including Brazilian-Portuguese (Vartanian et al., 2006), Hindi (D'Cruz et al., 2007), Spanish (Nazar et al., 2010), and Turkish (Senkal et al., 2012). Translation and cultural adaptation of the UW-QOL have been conducted, and their validity and reliability have been tested in the respective countries.

Cross-References

- ▶ Health-Related Quality of Life (HRQOL)
- ▶ Patient-Reported Outcome Measure
- ▶ Perceived Quality of Life
- ▶ Quality of Life (QOL)

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University-Community Engagement/ Civic Engagement

► Community-University Partnership(s)

University-Community Partnerships

► Community-University Partnership(s)

Unpaid Labor

► Women's Housework over a Decade

Unpaid Work

► Volunteering
► Volunteering Motives in Europe

Unprotected or Unsafe Sex

► Family and Individual Factors Associated with Risky Sex

Unsocial Hours

► Work-Life Conflict in Europe

Unstandardized Coefficients

► Regression Coefficients

Unstructured Interviews

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Definition

Unstructured interviews involve a complex interaction between researchers and interview subjects undertaken for the purpose of collecting data pertaining to cognitive processes, social worlds, and experiences. Unlike structured interviews, yet similar to natural conversations, researchers ask questions that are largely unscripted.

Description

Unstructured interviews are informal conversational interviews in which respondents may not even know they are being interviewed (Patton, 2002). Unstructured interviews do not rely on a list of predetermined questions. Instead, interviewers adopt what Patton refers to as a "go with the flow" conversation style defined by their role in the field setting. By contrast, semi-structured interviews use a written guide to focus the interview on particular topics or issues. The topic guide is prepared prior to the interview and interviewers tend to stay focused on prescribed topics. Alternatively, structured questionnaires use questions and wording which has been predetermined, and the conversation does not sway from the predetermined questions.

Unstructured interviewing often occurs in the context of participant observation. Because interviewer questions stem from the natural course of the conversation, the information gathered depends heavily on the context of the

setting (Patton, 2002) as well as the rapport developed between interviewer and interviewee. Unstructured interviews are more akin to conversational partnerships in that participants are encouraged to use their own language to describe their experiences and discuss what they feel is relevant to the issue (Davies, 1999; Rubin and Rubin, 2005). The key objective of unstructured interviewing is to gain a deeper understanding about an aspect of social processes rather than to explain it (Fontana & Prokos, 2007).

The quality of unstructured interviews is heavily influenced by the interviewer's skill. The process of unstructured interviewing is fluid and open to change as the interview progresses. Consequently, interviewers have to rely on a good sense of timing as well as their ability to generate questions spontaneously. Interviewers may have to overcome participant resistance or respondents who may not be forthcoming during an interview. As a result, they often prepare probes and prompts to stimulate conversation. Interviewers confront participant resistance by showing empathy during the interview, for example, by sharing a similar personal experience with the interview subject (Warren & Karner, 2005). Unstructured interviews almost always take place between individuals who share more than simply the interview encounter. Usually, the interviewer will have established an ongoing relationship with the person being interviewed – one that precedes the interview and will continue long after it (Davies, 1999). In the context of ethnographic field research, this relationship is important in creating opportunities for follow-up interviews and to clarify or deepen understanding.

There are a number of challenges interviewers face in undertaking unstructured interviews. According to Patton (2002), among the most noteworthy is that information collected can be influenced by interviewer effects (Patton), leading to hidden biases as a product of leading questions and interviewers' attempts to keep the conversation going. Moreover, unstructured interviews are less systematic than structured interviews, which ask the same questions of all interview subjects. This can make data analysis more difficult.

The strength of unstructured interviewing is the amount of flexibility it provides to pursue topics most relevant to the participating conversational partners. Interviewers formulate different types of questions in order to insure that they are salient to each individual interview subject and their situation. Unstructured interviews also encourage participants to use their own language, verses using language that has been predetermined by others. Most important, these types of interviews tend to build on previous interviews and encounters and are therefore useful in exploring, if not clarifying, emerging themes within complex social interactions and cognitive processes (Davies, 1999; Fontana & Prokos, 2007; Patton, 2002).

Cross-References

- ▶ Data Analysis
- ▶ Participant Observation
- ▶ Social Interactions
- ▶ Structured Questionnaires

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Unsupervised Learning

- ▶ Cluster Analysis

Unwarranted Universalism

► Ethnocentrism

Upward Comparison

► Social Comparison Theory

Upward Mobility

► Occupational Mobility

Urban Agglomeration

► Urban Areas

Urban Amenities

► Urban Isobenefit Lines

Urban and Regional Planning

► Community Planning

Urban Areas

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Synonyms

Urban agglomeration; Urbanized areas

Definition

An urban area can be defined as a geographical space characterized by a continuous urban settlement. It has a population density higher than the surrounding space, even though the values of the density significantly vary in different countries and according to various types of urbanization. Urban areas are composed of a central part, consisting of a more or less large city or town, and by surrounding suburbs. In European cities often urban areas which are centered on a major city include other towns that once were distinct but eventually have been incorporated through processes of agglomeration.

Description

The processes of urbanization that occurred during the twentieth century have produced a high concentration of population in cities and metropolitan areas both in developed and developing countries. It is estimated, in fact, that the world's population living in urban areas in 2010 represents 52 % of the total population (The World Bank, 2012).

However, the intensity of these processes has led to a radical transformation not only of city size but also of its dimension. In preindustrial societies – and also in the early stages of industrialization – it was possible to recognize a clear distinction between urban and rural spaces; however, during the twentieth century, the growth of cities has led to a development of the urbanized areas far beyond their previous borders, often incorporating villages and small towns. This phenomenon has been accomplished in different ways, giving rise to urban forms of new type which have been designated with a variety of concepts. Thus, for example, the term "conurbation" – firstly introduced by Patrick Geddes (1915) – indicates the urbanized area that is created from the merger of two previously separate cities. Conversely, "agglomeration" means the product of the expansion of a central city, which includes a set of small towns maintaining a relatively compact form (Santangelo, 2011). In any case, the result of these processes is the

creation of an urban area which includes the city center and a complex of closely interconnected settlements. However, each part of this area has different morphological, economic, and functional characteristics and also a different social structure.

In the vast majority of European cities, the inner part is represented by a historical center in which it is possible to recognize the presence of several layers, corresponding to different periods of urban development, for example, the medieval, Renaissance, and eighteenth- and nineteenth-century urbanization. The surrounding areas that have been created due to the expansion of industrial production are located around this historical core, namely, the districts of the urban periphery and the outer neighborhoods, arising from the process of suburbanization. The suburbs often correspond to areas of location of large industrial plants, especially typical of the Fordist period, around which residential areas, inhabited mainly by the working class, grew rapidly.

The expansion of cities and the creation of large-scale urban areas are a phenomenon already observed in the first half of the twentieth century in most developed countries, although it is further continued in the years following the Second World War. In addition, in those years around the city and its suburbs had formed an even wider metropolitan area, a network of towns that have close economic relations with the central city, and, in particular, host a population of commuters who every day go for work in the central parts of the area.

However, especially in the last quarter of 1900, the processes of urbanization have undergone a radical further transformation (Beauregard, 2006), characterized by an increasing dispersion of urban settlements. Urban sprawl was already a phenomenon present in American cities since the postwar years; since the 1980, it became more widespread in Europe and, above all, was accompanied by a significant transformation of the economic base of cities, lifestyles, and consumption patterns. In fact, the reorganization of the industry, the growing importance of tertiary sector in the metropolitan economy, technological innovations in information technology and telecommunications, as well as increased mobility of the population favored new and less compact urban structures. In this way, the spatial structure of large metropolitan agglomerations has become much more complex, and to describe the emerging urban forms has been necessary to introduce new conceptual frameworks. In this regard, Taylor and Lang (2004) compiled a list of 100 terms used to describe new types of urban settlements or concepts referred to intercity relations.

One of the aspects of what has been called the "post-metropolis" (Soja, 2000) is the different relationship between the new settlements, which grew beyond the compact urban area, and the metropolitan core. These outer neighborhoods produced by the processes of post-suburbanization (Phelps, Parsons, Ballas, & Dowling, 2006), compared with the traditional suburbs, show less dependence on city center and a greater independence from spatial hierarchies typical of the previous epoch, which were based on the simple dichotomy between "center" and "periphery."

In fact, post-metropolitan suburbs are not only residential areas away from the city's compact core; sometimes they are more complex settlements that host corporate headquarters, banks, hotels and other important economic functions. In this case, there suburbs represent actual "edge cities" (Garreau, 1991). It is interesting to note that this phenomenon does not concern only the cities of the Western world, but it is present also in emerging countries such as China, concerned since the 1980s by rapidly evolving urbanization processes (Wu, Phelps, 2011).

The expansion of urbanization in scattered forms is accompanied by a transformation of the central districts of the urban area. In most larger cities, as well as many towns of historical and artistic interest, the inner districts have undergone a process of gentrification (Glass et al., 1964; Smith, 1996), that is, a substitution of low-income social groups with a population belonging to the middle or upper class. In many cases, this process was also favored by the presence of public policies, which resulted in the upgrading of architectural and cultural heritage, as well as the public space of the city center. In addition, these

transformations of the built environment and the social composition of neighborhoods also involved some external zones of the urban area and, in particular, the spaces previously occupied by large industrial plants which have ceased their activities.

In these areas, many cities have localized not only residential areas for the middle class but also new business and tertiary centers for leisure, commerce, entertainment, and culture, trying to attract national and international investments, thanks to the presence of high-quality architectures. In some cities, these transformations have been also promoted by the organization of major events (sports, trade fairs, cultural), which make it possible to receive large investments and create new buildings and infrastructure.

Cross-References

- ▶ Urban Morphology and Citizens' Life
- ▶ Urban Renewal

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Urban Compactness

- ▶ Density, Urban

Urban Concentration

- ▶ Density, Urban

Urban Design

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Synonyms

Community design; Design of urban form

Definition

Urban design refers to the design and composition of urban spaces. In recent decades, many towns and cities have paid increasing attention to urban design in recognition of the role that high-quality design can play in the quality of life in the city.

Description

Urban design (UD) exists at three scales. At one end, it is concerned with the design of the town, city, and region. Within that broad scope, there is a particular focus on public space that exists

between buildings and provides the connective tissue of services and systems that hold the city together. The in-between territory then provides the context for UD at the scale of the street, the design, and use of which touches us most personally, directly, and constantly.

The city is an act of will. It is not a happy accident or the inevitable outcome of many individual and often competing agendas vying for advantage. There is an intention in its relationship to the natural environment. Its physical form matters both on the ground and against the sky (Bacon, 1978). Urban design orders, organizes, and orchestrates the connective infrastructure, open space, and public institutions. These are the permanencies and the structural scaffold that allow for incremental growth and individual expression (Rossi, 1982). Form and use come together to provide an order that makes the city legible and navigable even by strangers (Lynch, 1960).

More particularly, UD is concerned with the public territory in between the houses, workplaces, and commercial enterprises. It is the field that has no doors. Here is where we gather, make connections, move around, play, celebrate, and meet strangers. This in-between landscape makes up 40–50 % of the total land area. It is also largely responsible for how we perceive and experience the city. UD at this level is not about designing each object but rather about designing an order or pattern that ensures continuity, establishes links, and allows for change and growth over time.

Streets provide access and movement, a skeletal connective structure, a communal living room, and stage for public activity, a marketplace for goods and ideas as well as serving as a forum for individual identity and the expression of ▶ community values (Jacobs, 1961).

Streets are central to UD. The origins of the discipline can be seen as a reaction to the 1950s modernists' focus on individual buildings surrounded by open space and connected by highways and high-speed roads. In this sense, the street is not just a functional component; it is the very essence of what holds the community together and the definition of urban (Anderson, 1978). Each street can be inhabited to varying degrees by people and vehicles, trees and newspaper kiosks, mail boxes, lighting, advertising, and bus shelters. There are many hands involved in the design of each of these components. Urban design is concerned about how they come together, the larger pattern, and the relationships. It is also concerned with the adjacent buildings. The buildings make a streetwall. The walls – high or low, solid or transparent, broken or continuous – define the quality, use, and intensity of the street. This is the ▶ public interest in individual developments. Design guidelines are established to orchestrate how buildings can be distinctive and individual and still form a coherent streetwall that defines and encloses a great street (Jacobs, 1993).

At all three scales, the client for UD is public, the interest is civic and collective, and the view is long term; the focus is not on individual objects but rather on their relationship to each other. In all of this, there is a delicate balance. If there are too many rules or the rules are too draconian, it frustrates creativity and individual identity, resulting in public spaces that are static, even boring (Krier, 1979). If there is too little control, the results can be chaotic, fractious, and confusing. Finally, given that "public" is central to UD, increasingly public engagement in UD is being embraced as a basic approach.

In sum, the quality of urban design and its ability to create spaces for meaningful and healthful activities contribute to quality of life in our cities.

Cross-References

▶ Smart Growth
▶ Walkability

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Urban Dispersion

► Suburbanization

Urban Ecology

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Definition

Urban ecology involves the interrelationships of organisms, including people, with each other and their urban environments.

Description

Ecology is an evolving discipline with an increasing focus on landscapes and urban regions. Forman and Godron (1981, 1986) are responsible for defining the field of landscape ecology. They explain: "Landscapes as ecological units with structure and function are composed primarily of patches in a matrix. Patches differ fundamentally in origin and dynamics, while size, shape, and spatial configuration are also important. Line corridors, strip corridors, stream corridors, networks, and habitations are major integrative structural characteristics of landscapes" (Forman and Godron, 1981, 733). Forman expanded the field to encompass regions. His particular interest addresses the ecology of landscapes and regions "beyond the city." Meanwhile, ecologists have also begun to refocus their science inside the city.

The US National Science Foundation (NSF) supports a network of 26 Long Term Ecological Research (LTER) projects. The NSF initiated the LTER program in 1980 to support research on long-term ecological phenomena. The LTER mission is to document, analyze, and understand ecological processes and patterns that change over long temporal and large spatial scales. Until 1997, these LTERs were located outside urban regions. After an intense competition, the NSF selected the contrasting American cities of Phoenix (http://caplter.asu.edu) and Baltimore (http://www.beslter.org) for its first urban LTERs. Baltimore has a longer European settlement history and is located in a humid, coastal region. Although there were ancient native settlements, the Phoenix region has grown rapidly since World War II and is located in a desert.

The Baltimore LTER aims to understand the metropolitan region as an ecological system. The Baltimore Ecosystem Study team of cross-disciplinary researchers explores complex interactions between the built and the natural environments with ecological, social, economic, and hydrological processes (Pickett et al., 2007). The Baltimore LTER attempts to advance both ecological research and environmental policy. For example, "Our finding that urban riparian zones experiencing hydrologically-induced drought are not sinks for nitrate, but in fact may be nitrate sources, helped lead policy makers concerned with the water quality of the Chesapeake Bay to reduce their reliance on stream corridor tree planting as a primary mitigation strategy" (Pickett et al., 51).

The Central Arizona-Phoenix LTER includes an interdisciplinary team of researchers at Arizona State University. They study the interactions of ecological and socioeconomic systems in a rapidly growing urban environment. They have especially advanced our understanding of land-use change on ecological patterns and processes (Grimm, Grove, Redman, & Pickett, 2000; Grimm et al., 2008). Such understanding is important as cities in the Southwest

United States continue to grow rapidly in an environmentally sensitive context.

In addition to the formal NSF-backed urban LTERs, other US scholars are advancing urban ecology research across disciplines, most notably in the Puget Sound region of the Pacific Northwest (Alberti & Marzluff, 2004). The Puget Sound group from the University of Washington has contributed to the understanding of ecological ▶ resilience in urban ecosystems. Resilience, from the Latin *resilire* meaning to spring back or rebound, is both a concept and a theory with growing appeal in ecology. When rising from traditional concepts in ecology, resilience emphasizes equilibrium and stability. The United Nations defines resilience as the ability to absorb disturbances while retaining the same basic structure and ways of functioning, the capacity for self-organization, and the capacity to adapt to stress and change.

As a result of urban-based ecological studies, urban ecology is emerging as a field that emphasizes an interdisciplinary approach to understanding the drivers, patterns, processes, and outcomes associated with urban and urbanizing landscapes. Alberti (2008) conceives of urban ecosystems as complex, coupled human-natural systems where people are the dominant modifiers of ecosystems, thus producing hybrid social-ecological landscape patterns and processes. Some urban ecology research focuses on the impact of habitat fragmentation of suburban and urban housing development patterns for avian species productivity; other research focuses on the integration of scientific analyses into growth-management strategies. Such diverse research agendas are united in their recognition that urban ecosystems – which affect the quality of life for the majority of the planet's residents – are characterized by complexity, heterogeneity, and hybridity and are, therefore, best analyzed within an interdisciplinary approach.

Cross-References

▶ Environmental Sustainability
▶ Urban Health

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Urban Environment

▶ Built Environment
▶ Walkability

Urban Environment Performance Index

▶ Urban Environmental Indicators

Urban Environmental Indicators

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Synonyms

City environmental indicators; Urban environment performance index

Definition

Urban environmental indicators are a set of parameters that different urban stakeholders employ to measure, monitor, and evaluate city environment quality/conditions. These empirical indicators mainly focus on ecologically sustainable development of cities and on factors that have significant impacts on quality of life and health conditions, i.e., morbidity and mortality; of urban residents, e.g., transportation, sanitation, water quality and quantity, and living conditions; and so on.

Description

In the last two centuries, the world has witnessed remarkable concentrations of population in urban areas, first in the 1800s after the Industrial Revolution in the Western world, whereas the scale and speed of urbanization is much faster in the developing world since post-WWII. Slightly more than half of the world population live in urban areas (World Bank, 2012), and according to the United Nation's projection (2011), urban population will represent more than 60 % of the world population by 2050. Cities are concentrated spaces hosting dense populations who are giant consumers of natural resources and significant producers of pollutants. Furthermore, the effects of the consumption of resources and industrial and other production go beyond the geographical area of the city itself, having impacts not only on the local, proximate resident population but even on the global environment.

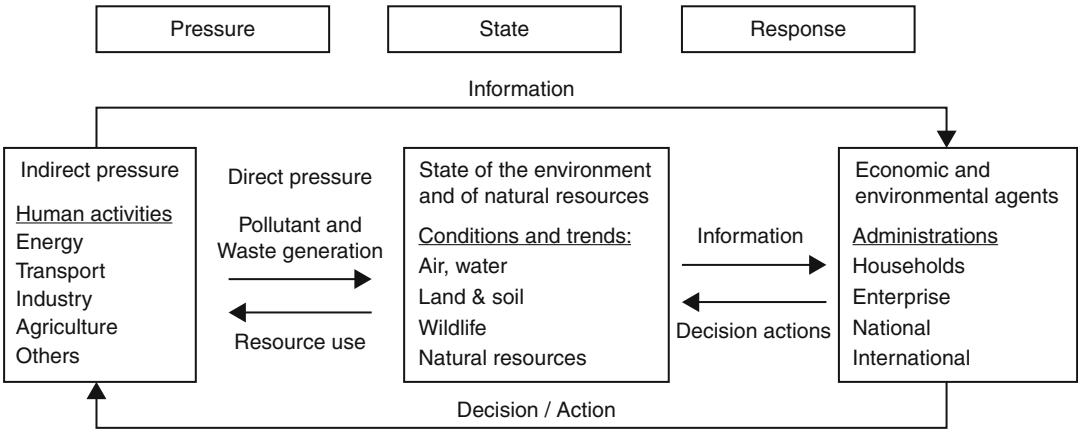
The urban environmental indicators thus reflect the ecological footprint of urban residents, providing information to monitor urban sustainable development and information relevant to urban residents' quality of life. However, the conversation regarding urban environmental indicators among various stakeholders is primarily empirical; there is not much theoretical discussion on urban specific conceptual definition and framework. Nonetheless, the framework and conceptualization of environmental indicators are relevant here. Among all environmental indicators, three models are the most popular: The European Environment Agency (2005) employs the DPSIR to link *D*riving forces, *P*ressure, *S*tate, *I*mpact, and *R*esponse. The World Health Organization emphasizes human health in the casual chain of environment changes using the DPSEEA model: *D*riving forces, *P*ressure, *E*nvironmental state, *E*xposure, and health *e*ffects and *A*ction (Briggs, Corvalán, & Nurminen, 1996; Corvalan, Briggs, & Kjellstrom, 1996; Kjellstriim & Corvalán, 1995). The PSR model by Organization for Economic Cooperation and Development [OECD] (1993, 2003), from which the DPSIR and DPSEEA models are originated, provides a generalized and simplified causal link between *P*ressure, *S*tate, and *R*esponse.

The Pressure–State–Response Model

The OECD PSR framework (1993), based on which various modified models are developed, provides a cause-effect link to track environmental changes due to human activities (please refer to Fig. 1). The main objective is to identify the links between the main triggers of environmental degradation and change ("pressures") and the actual and anticipated effects on the environment and natural resources ("state") and to develop possible intervention measures at different levels that include different actors involved ("response").

An Example: CEROI Urban Environmental Indicators

The Cities Environment Reports on the Internet (**CEROI**) project follows Chap. 40 of Agenda 21 (United Nations, 1992) and has the aim to develop a network of cities, which facilitates access to and sharing of urban environmental information among cities both locally and globally through the Internet (for details, please see CEROI 2000). Its secretariat is located at UNEP/GRID-Arendal in Norway. The core indicators adopted are based on the DPSIR model that connects factors from the social, economic, and environmental domains: Driving forces underlying environmental changes (such as human consumption), Pressure on environment (such as emission of waste water), State of environment (e.g., water quality), Impact on societies



Urban Environmental Indicators, Fig. 1 The OECD pressure–state–response (P–S–R) model (Source: OECD, 1993, 2003)

(e.g., environmental degradation, diseases related to water born germs), and Response of the society (such as water improvement projects). Here I list the total list of City Environmental Indicators Encyclopedia from the CEROI website: http://www.ceroi.net/ind/all_ind.asp. More detailed information can be found by clicking on each of the indicators on the website.

Access to drinking water	Life expectancy at birth
Access to education	Local green taxes
Access to public transport	Mortality rate
Accessibility of green space	Mortality rate due to heart disease
Adult literacy	Municipal budget derived locally
Advertisements/information in local media	Noise
Air emissions	Number of days exceeding air quality standards
Air quality	Number of NGOs
Annual withdrawals of ground and surface water	Number of people using recreation facilities
Availability of local services	Number of women in management positions
City product	Organisations using environmental audit systems
CO_2 emissions per household	Participation in decision-making
Contaminated sites	Participation in elections
Deaths from diseases	Pedestrian and bicycle friendly streets
Derelict areas	Poor households
ECI 01: Citizen Satisfaction with the local Community: Citizens satisfied with the municipality as a place to live and work	Population density
ECI 02: Local contribution to Global Climatic Change : Emissions of CO2 equivalents	Population growth
ECI 03: Local mobility and passenger transportation : Daily average distance travelled	Presence of LA 21 process
ECI 04: Availability of Local Public Open Areas and Services	Price of water
ECI 05: Quality of local ambient air: Number of times the limit values have been exceeded	Protected area as percent of total area
ECI 06: Children's journey to and from school: Mode of transport used	Public access to green spaces
ECI 07: Sustainable Management of the Local Authority and Local Business	Public and mass transport seats
ECI 08: Noise pollution : Number of people exposed to noise pollution (Lden)	Public participation in waste reduction
ECI 09: Sustainable land use	Quality of drinking water
ECI 10: Products promoting sustainability : Share in total consumption	Quality of urban wildlife
Emissions NO_x, NMVOC, CO and CH_4	Recycling

(*continued*)

(*continued*)

Emissions of acidifying substances	Reduction in landfilled solid waste volumes
Emissions of greenhouse gases	Reduction of waste water flows
Emissions of ozone-depleting substances	Reduction of water consumption
Energy consumption	Regionally and locally-produced food
Expenditure on education	Rent-to-income ratio
Floor area per person	Respiratory illness
Fuel consumption and vehicle miles traveled	Safety
Green areas	School attendance
Health care	Solid waste recycling rate
Historic buildings	Sources of drinking water
Homeless people	Sustainable land use
Household connections	Traffic volumes
Household income disparity	Transport modes
Housing price	Travel times
Housing tenure types	Unemployment rate
Infant mortality	Urban formal and informal settlements.
Informal employment	Urban renewal areas
Investment in public transportation	Waste disposal
Investments in green areas	Waste production
Investments to water supply systems	Wastewater treatment
Juvenile crime	Water consumption
Land use change	Water quality on surface streams
	Years of formal education

Discussion

Urban environmental indicators help to provide information for the public, policy makers, and other stakeholders. However, the related research is still very empirical and pragmatic. It is necessary to develop more theoretical conceptualizations and frameworks. The indicators are usually focusing on urban ecology and sustainable development. Health and quality of life relevant to environmental degradation are less emphasized. It is important to both develop more health-relevant parameters and emphasize the importance of human health in the conceptual models that usually emphasize linkages between human activities, environmental conditions, and society responses. Furthermore, cities are not isolated; the impacts of urban residents' activities, including consuming and producing, can go beyond the local level and reach out to the global level, whereas the growing numbers of megacities worldwide will exert even bigger influence.

Cross-References

- ▶ City Competitiveness and Quality of Life
- ▶ Environment and Health
- ▶ Environment Friendly Index
- ▶ Environmental Sustainability
- ▶ Environmental Sustainability Index (ESI)
- ▶ Health
- ▶ Health Geography
- ▶ Healthy Cities
- ▶ Intra-urban and Interurban Quality of Life Approaches
- ▶ Megaurban Health in Developing and Newly Industrializing Countries
- ▶ Urban Ecology
- ▶ Urban Health
- ▶ Urban Quality of Life Estimates
- ▶ Urban Sustainability Indicators

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Urban Forests

▶ Nature and Well-Being

Urban Health

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Synonyms

Community Health; Urban Quality of Life

Definition

Urban health reflects the outcomes of the physical and the social environment that impact residents' and communities' well-being and quality of life, within an urban setting. The physical and built environment (urban structures, infrastructure, and spaces) may affect health, especially if there are issues with water quality, sewage, or air pollution. The urban environment also presents benefits to health through open, green, and recreational spaces. Social determinants of health influence a resident on a personal level. For instance, economic and social problems are stressors affecting housing, food, and access to ▶ health care. The state of urban health varies depending on the specific context in which a city is located and financed. Urban health issues in North America or Europe are not too different from those issues in Asia and Africa but may vary in extent and scale.

Description

Urban space is a major arena where society and health interact, as half of the world's population lives in cities. In 1999, the World Health Organization (WHO) advocated a combined approach on urban health and ▶ urban planning to counteract declining health and economic status for many urban residents (Corburn, 2004). In *Hidden Cities: Unmasking and Overcoming Health Inequities in Urban Settings*, the WHO (2010) repeated its call for fighting inequities among populations in urban settings. While cities attract migrants with job and employment opportunities and the promise of services, they also feature crime, ▶ unemployment, housing issues, and health risks. Urban health is a global issue "eroding the quality of life" in general (Krämer, Khan, & Kraas, 2011). Urban health issues differ in magnitude and scale among cities on different continents, but many basic issues are widespread.

With the global trend toward increasing populations in urban areas and inadequate provision of health care in some nations, economic and infrastructure problems in cities often generate health risks for segments of the population. In an urban environment, social determinants of health – such as low levels of education and income – elevate the risk that people will experience poor living conditions which undermine quality of life and health outcomes (Corburn, 2009; United Nations Children's Fund, 2012; Vlahov, Boufford, Pearson, & Norris, 2010; Vlahov et al., 2007).

Influences on Urban Health

Urban growth or increasing urbanization is a leading factor in poor outcomes in urban health (WHO, 2010). Rapid urbanization contributes to

spatial misery (Vlahov et al., 2007) as those migrating to large urban centers, especially in developing countries, find themselves in dense squatter settlements or slum housing where water, sewer, waste removal, and utilities prove inadequate. UN Habitat and WHO describe the emergency situation of the urban poor in these areas: lacking basic services and living in substandard housing with high population densities (Vlahov et al., 2007; WHO, 2010). Populations such as women (Meleis, Birch, & Wachter, 2011), children (United Nations Children's Fund, 2012), and the elderly may be especially vulnerable to chronic and infectious diseases spread quickly in poor living environments.

Built Environment – The built environment has a critical influence on urban health. In particular, in providing shelter (housing), transportation, and infrastructure, it defines a physical framework. Without an efficient framework of urban infrastructure and services, residents face increased health risks. For instance, residents in urban areas require adequate supplies of clean water. However, some urban areas do not have the infrastructure or capacity for supplying freshwater to settlements. Furthermore, maintaining a high hygiene standard ensuring that drinking water is safe and clear of potential health threats can rarely be guaranteed in informal settlements. Discrepancies between countries in respect to urban health typically reveal differences in the supply and management of waste and sewer. Whereas developed countries discuss the need of having separate systems for surface runoff water and sewer, some developing nations struggle to place any sewer systems in their booming urban areas. Similar issues are encountered in the lack of solid waste management/disposal channels; poor management increases the risk of contamination of freshwater supplies if waste reaches water bodies (Galea, 2005). Air pollution also emerges as a significant hazard in some developing cities because of the long-term effects of industrial particulates and CO_2 emissions on respiratory health.

Green and open spaces within an urban area are part of the (built) urban environment which benefits community health through providing spaces for active living, social interaction, quality of life, and enjoyment of nature (de Chastel, 2007). Urban planning movements such as ▶ Garden City, Gartenstadt, City Beautiful, or locale ▶ Agenda 21 projects demonstrated the value and importance of parks, green, or open space as part of an urban ecosystem showing direct influences on urban climate and human health as well as on social determinants of health (James et al., 2009).

Social Determinants of Health – Research on ▶ healthy communities and health impacts has shown that the personal, social, and economic environment; a community's age; and population composition influence a community's health (Corburn, 2009; Vlahov et al., 2007). The effect that the built environment has on disparities and inequities gets amplified when additional stressors are present. The urban poor live in inferior housing or have no permanent shelter at all, work in dangerous employment, pursue a less-healthy diet or have less access to healthy food, engage in higher-risk behaviors, and often lack access to high-quality health care (Kushner, 2007; Vlahov et al., 2010). Higher rates of ▶ poverty and social tensions in a community are reported health risk factors along with relative social status or position (Evans et al., 1994). Relative social status is a strong predictor of health, even stronger than genetics or behavior (Adler & Matthews, 1994). The need to control life events is closely related to stressors such as social exclusion, residential segregation, and other elements of ▶ racism thought to intensify the effect of poverty on health.

In sum, the state of urban health is the result of multiple variables and a complex composition of direct and indirect influences. It is built on multiple levels, whereas equal access to clean water, regular food, and health care is a bare minimum and first step in the effort to increase quality of life among residents of urban areas and establishing urban health.

Cross-References

- ▶ Healthy Cities
- ▶ Healthy Communities
- ▶ Megaurban Health in Developing and Newly Industrializing Countries

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Urban Isobenefit Lines

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Synonyms

Equilibriam, spatial; Homogeneity, urban; Urban amenities

Definition

The Urban Isobenefit Lines join the urban points with equal levels of benefit given from urban amenities, thinking of amenities as urban attractions such as parks, pedestrian streets, nice squares, and pleasant shopping areas.

They were introduced by D'Acci (2012, 2013a, b, c) and underlined by the MIT Technology Review as

> Isobenefit Lines rewrite rules for understanding city life. A new way of mapping cities according to the benefit they give residents has the potential to change the way planners think about city design. (MIT Technology Review, 2012)

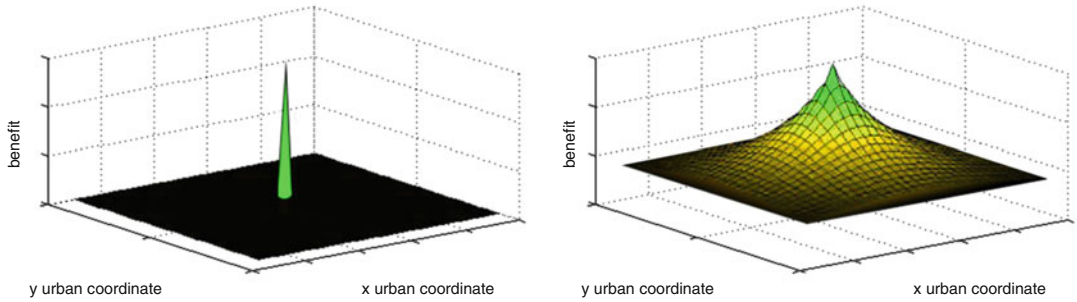
("MIT Technology Review was founded at MIT in 1899, and derives its authority from the world's foremost technology institution").

Description

The benefit of a point (k) in the city received from an amenity i with a level A of attractiveness is given by D'Acci (2009a, b, 2013a, b, c)

$$B_{i,k} = \frac{A_i}{1 + \frac{d_{i-k}}{E}} \quad (1)$$

where E is the coefficient of "efficiency of moving": it depends from the cost/comfort/speed of reaching the amenity. If we build Personal



Urban Isobenefit Lines, Fig. 1 Result example of Eq. 1 (D'Acci, 2009a, b, 2013a)

Isobenefit Lines, E is also influenced by the personal propensity to move (D'Acci 2013c)

$$E = \varepsilon \cdot E_{i-k};$$
$$E_{i-k} \propto \alpha P_{i-k} + \beta C_{i-k} + \gamma W_{i-k} + \delta Bi_{i-k} \quad (2)$$

where E_{i-k} reflects the *objective status* of possibilities that the city offers for moving from i to k, and it says *how* the citizens move throughout the city (if mostly by car, C, public transport, P, bike, Bi, or walking, W, and ε says *how much* they are willing to move around (a kind of subjective comfort of moving). In a certain way, ε "weighs" the "variety" advantage to enjoy numerous amenities (*Variety Value*), rather than the advantage of the proximity of one amenity (*Proximity Value*) (D'Acci, 2013a, b, c). If ε is major than 1, the model emphasizes the Variety Value, and if minus, the Proximity Value.

The *objective status* of movement offered by the city is described by the variables P, C, W, and Bi.

The parameters $\alpha, \beta, \gamma, \delta$ describe how the citizen moves, what method he/she uses, and in which relative percentage (each of them is equal to major than zero, and their sum must be 1). Under a certain distance around A_i, γ and δ just count; after a certain distance, they will count less and less.

These variables are quantified for each urban point k of the urban matrix, in relation with each amenity i, and are all translated into the same scale.

P_{i-k} values the Public Transport system between i and k, and it is a weighted sum taking into account factors such as number of lines and their frequency, speed, traffic, cost, and objective comfort (number of seating areas, noise, design, etc.). C_{i-k} values the Car Transport system, and it is a weighted sum of variables such as traffic and costs (oil, parking, car taxes, insurance, etc.). W_{i-k} quantifies the facility for pedestrians and includes the objective condition and availability of sidewalks and the quality of the streets from the pedestrian point of view (noise, aesthetics, pollution, physical obstacles, etc.). Bi_{i-k} quantifies the same but from the point of view of biking.

Each of these under-variables is weighted by other parameters.

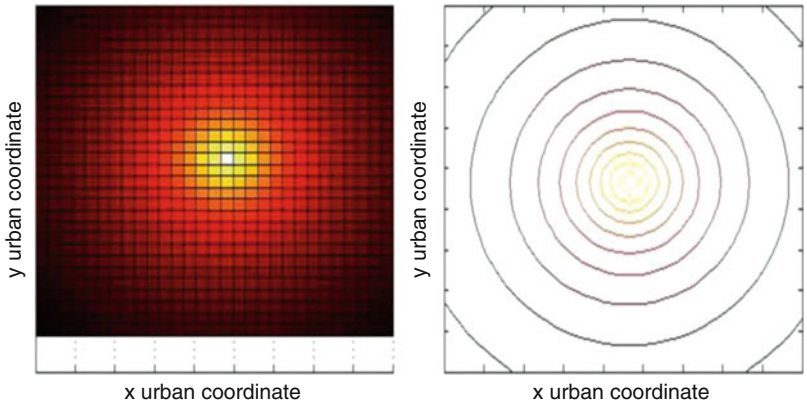
Therefore, E transforms the Euclidean distance (d) into a *Psycho-economical Distance*. When we formulate A and E on the basis of the aggregate statistics and habits and by observing the majority of the citizens rather than each of them, we talk of *Isobenefit Lines*.

When A and the full set of parameters of E ($\varepsilon, \alpha, \beta, \gamma, \delta$ and the under-parameters of each under-variable forming the variables P, C, W, and Bi) are formulated on the basis of *personal* habits and preferences, we pass from *Isobenefit Lines* to *Personal Isobenefit Lines*.

For example, for a person the most important things could be libraries, parks, and pedestrian areas; for another, shopping malls and parking; for another, hospitals and public transport, etc. In the same way, a person could give more value to aesthetics and silence; another, more to speed and time; another, more to the costs, etc.

Figure 1 shows a result example of Eq. 1.

Urban Isobenefit Lines, Fig. 2 Example of urban amenities (D'Acci, 2013a)

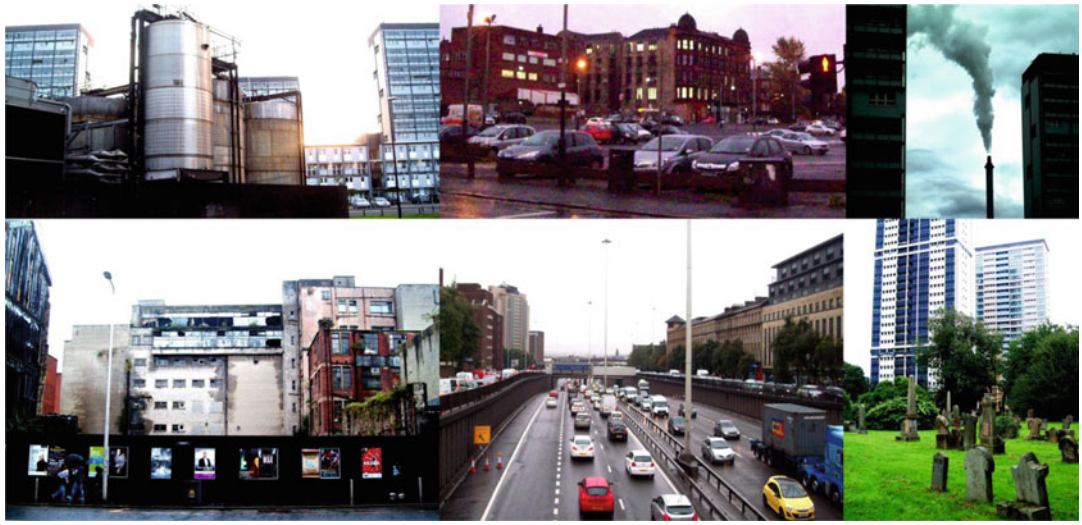


Urban Isobenefit Lines, Fig. 3 Isobenefit Lines (D'Acci, 2013a)

Next, Fig. 2 shows an example of urban amenities we can think about when using Isobenefit Lines Analysis of cities.

Independently from the equation we prefer to use, the Isobenefit Lines are the curves which join the urban points with the same level of B (Fig. 3). We call B the benefit derived from Eq. 1.

We can also introduce "non-attractiveness" (busy streets, abandoned factories, cemeteries, etc., Fig. 4), by an A with a negative value.



Urban Isobenefit Lines, Fig. 4 Example of non-attractiveness (D'Acci, 2013a)

Estimating the entire attractions of a city, the benefit of the k urban point is proportional to the sum of the benefit given by each attraction.

It depends on distances, levels, number, and reciprocal positions of all the attractions:

$$B_k = \sum_{i=1}^{n} B_{i,k} = \sum_{i=1}^{n} \frac{A_i}{1 + \frac{d_{i-k}}{E}} \tag{3}$$

We can quantify the spatial distribution uniformity of the attraction effects on the city by using the following indicator (D'Acci, 2009a, b, 2013a, b, c):

$$U = 1 - \sqrt{\frac{\sum_{k=1}^{m} \left(B_k - \frac{1}{m} \sum_{k=1}^{m} B_k \right)^2}{m}} \Bigg/ \frac{1}{m} \sum_{k=1}^{m} B_k \tag{4}$$

U is less or equal to 1 (maximum uniformity). If we also want to add disamenities analysis, we have to separately consider attractions ($A > 0$) and non-attractions ($A < 0$), in order to quantify U.

Variety Value and Proximity Value

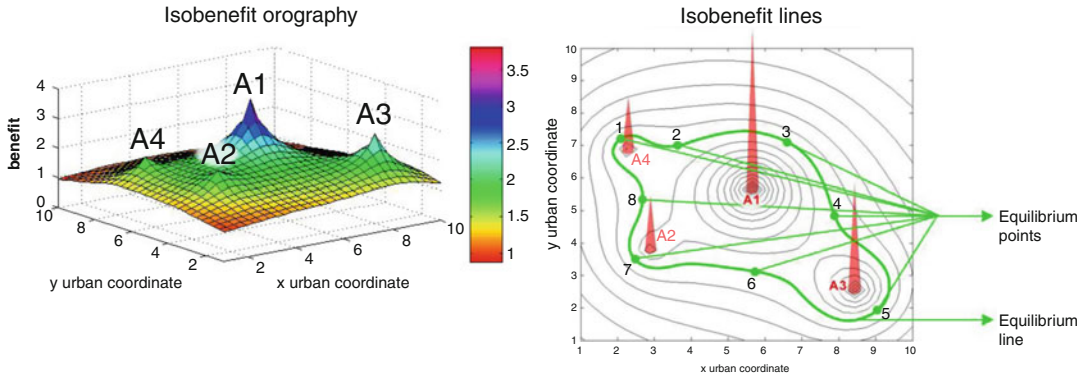
The higher ε the more the Eq. 3 "weighs" the "variety" advantage to enjoy numerous amenities, rather than the advantage of the proximity of one amenity. D'Acci (2013a, b, c) defined the first advantage as *Variety Value*, the second as *Proximity Value*.

In the next Fig. 5, people living in points 1 and 7 are in front of one amenity (A4 and A2); people in points 3 and 5 are slightly more distant from their closest amenity (A1 and A3), but the amenity has a higher attractiveness. It is like if the disadvantage to not live in front of the amenity is compensated from the higher benefit (higher A) that the citizen enjoys when reaching the amenity. At the same time, people living in 2, 4, 6, and 8 are more distant from their closest amenity but enjoy the advantage to reach more than one amenity with the same effort.

Isobenefit Orography is the 3D visualization of the Isobenefit Lines.

Personal Isobenefit Lines match the preferences of each citizen. In fact Isobenefit Lines vary among people and ages: one can prefer the variety to access more than one amenity, even paying the cost of not enjoying living very close to any amenity (although with a low attractiveness).

Therefore, when we build Personal Isobenefit Lines, E will also estimate the personal propensity to move, and the personal preference for the Variety Value (directly proportional to ε) rather than for the Proximity Value (inversely proportional to ε).



Urban Isobenefit Lines, Fig. 5 Isobenefit Lines as equilibrium lines (D'Acci, 2012, 2013a, b, c)

Isobenefit Lines can also be personalized when each person feels different levels of attractiveness (A in Eqs. 1 and 3) for the same amenity (D'Acci, 2013d).

Preference Gap Gain: Property Value as Monetary Mirror of Isobenefit Lines

If, *ceteris paribus*, prices of properties in two different urban areas of the city are the same, it seems that citizens (customers) showed to appreciate both areas in the same way or that a part of them preferred one area, and the other part the other area, but both in the same way.

If, *ceteris paribus*, the average price of properties in two different urban areas is different, those prices are usually expected to reflect the preference/needs expressed by citizens.

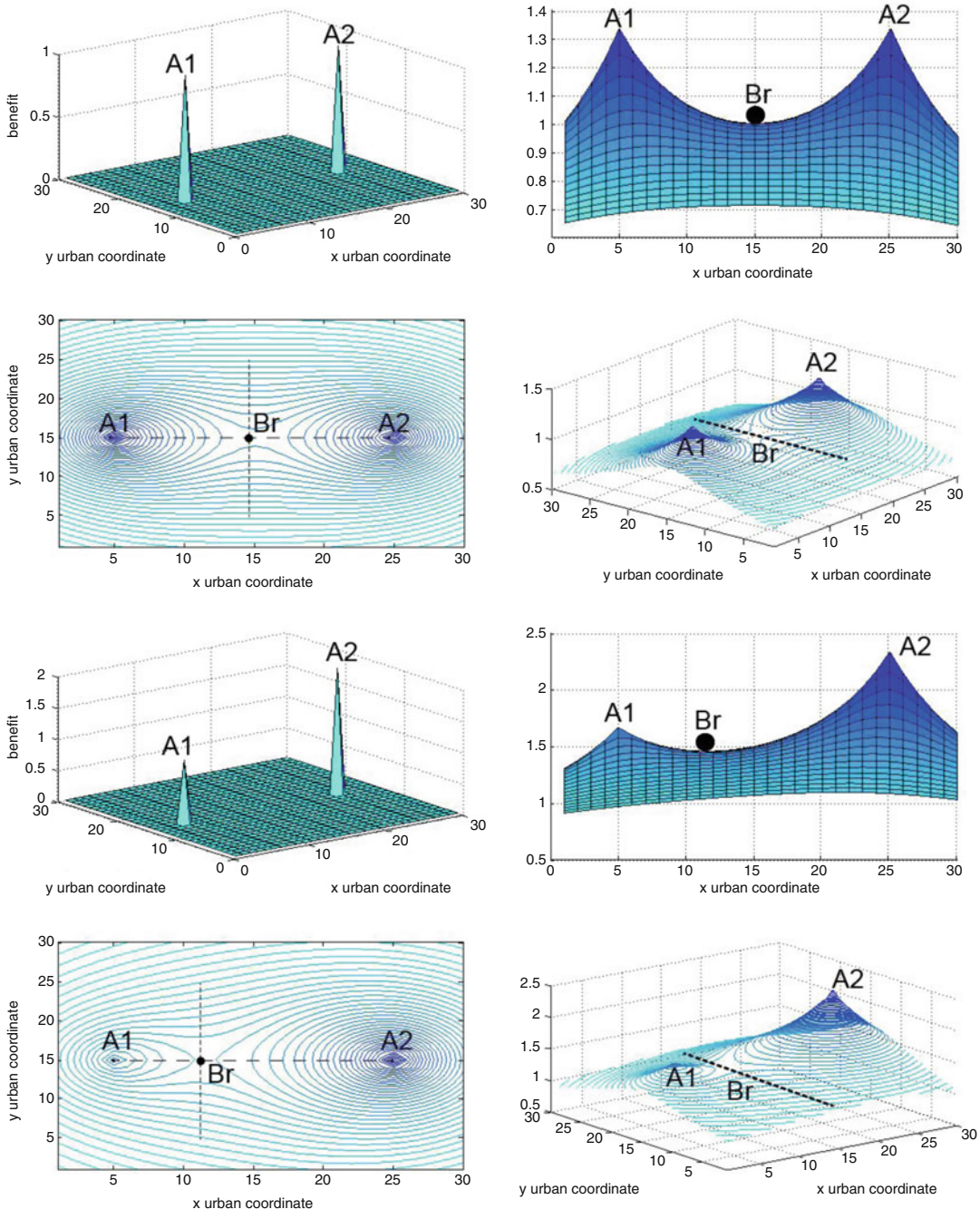
This is valid as long as there is an adequate volume of trade of houses in the areas. In fact, to fix a price, it is enough that there is one person (not the majority) willing to pay that price. However, this also depends from the time that the seller is willing to wait for selling and from the ratio between the number of sellers and buyers from that kind of property/land.

Comparing the offer price that everybody can see in any real estate agency website, of a similar land/property but in different places such as a nice city center, an unattractive peripherical area, a touristical mountain locality, a countryside area without services or comfortable streets, etc., we could notice differences. Those differences reflect in part the preferences/needs shown from people and their costs/advantages by living there, i.e., commuting, amenities, and average income/job offer in the area.

That citizen whose preference diverges from the average preference/needs, when buying or renting a property, could have an economical advantage or a disadvantage depending on the direction of the divergence.

Preference Gap Gain (*PGG*) (D'Acci, 2013c) is the advantage when, i.e., one prefers an area in which usually nobody would like to live (a quite inaccessible point, distant from any services, centralities, non touristic, etc.); in the same way, it turns a disadvantage when, i.e., one must live in an area that he does not like but that everyone loves. In the first case, he/she could pay less for something which for him has a great value, vice versa in the second case. This is the well-known surplus of the customer.

Those examples are valid as far as we consider income and commuting costs as a constant and not depending from the area in which the citizen chose/must live. Income in big and/or expansive cities is usually higher than in small/cheap cities, and this is compensated (spatial equilibrium) from the higher housing costs, general living costs, and/or some disadvantage (Glaeser, 2008). Therefore, the examples mentioned can refer to citizens choosing a place inside a same city (that means having the same job), or across cities/places (countryside, cities, villages. . .) if their job does not change by moving and does not require commuting change (i.e., independent worker, such as a writer, web designer working online).

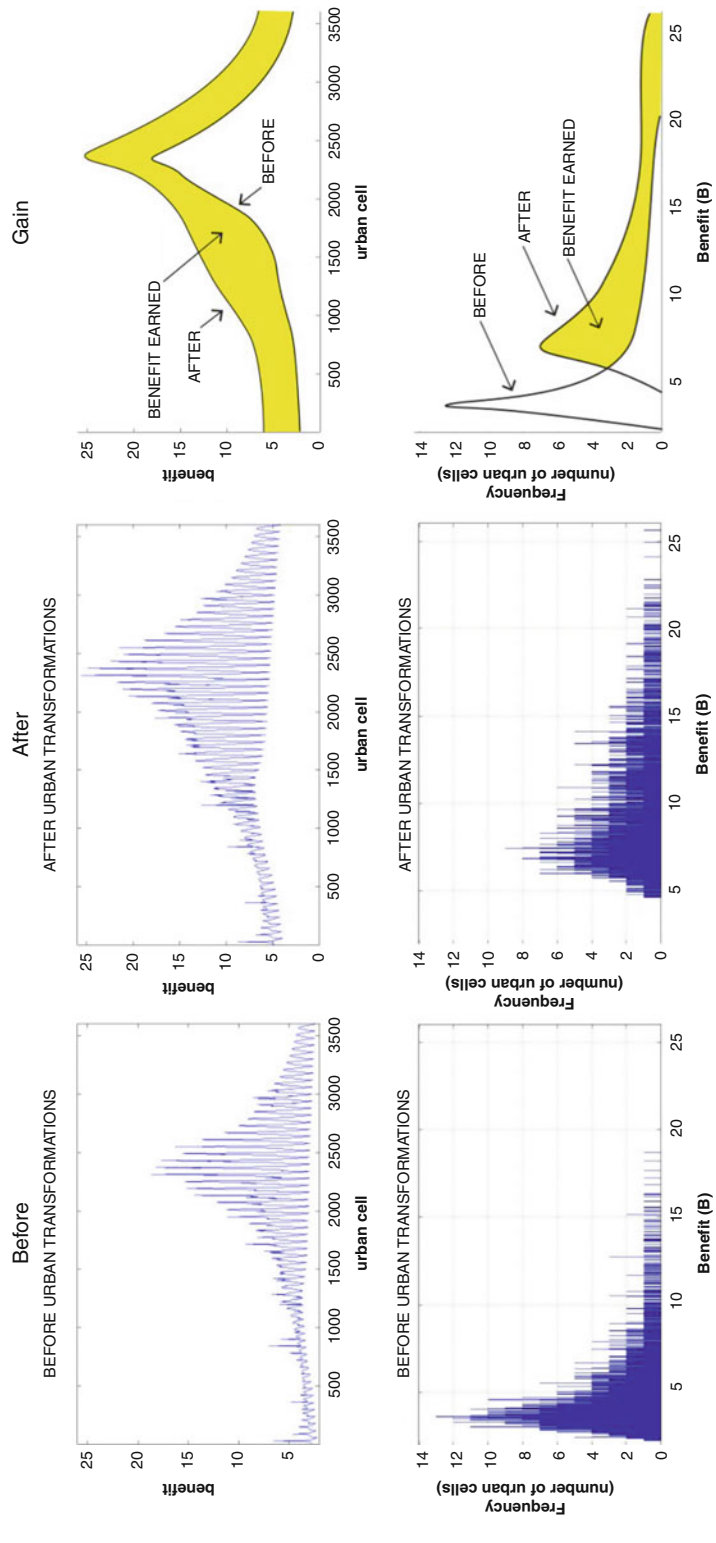


Urban Isobenefit Lines, Fig. 6 Example of breaking points (D'Acci, 2013c)

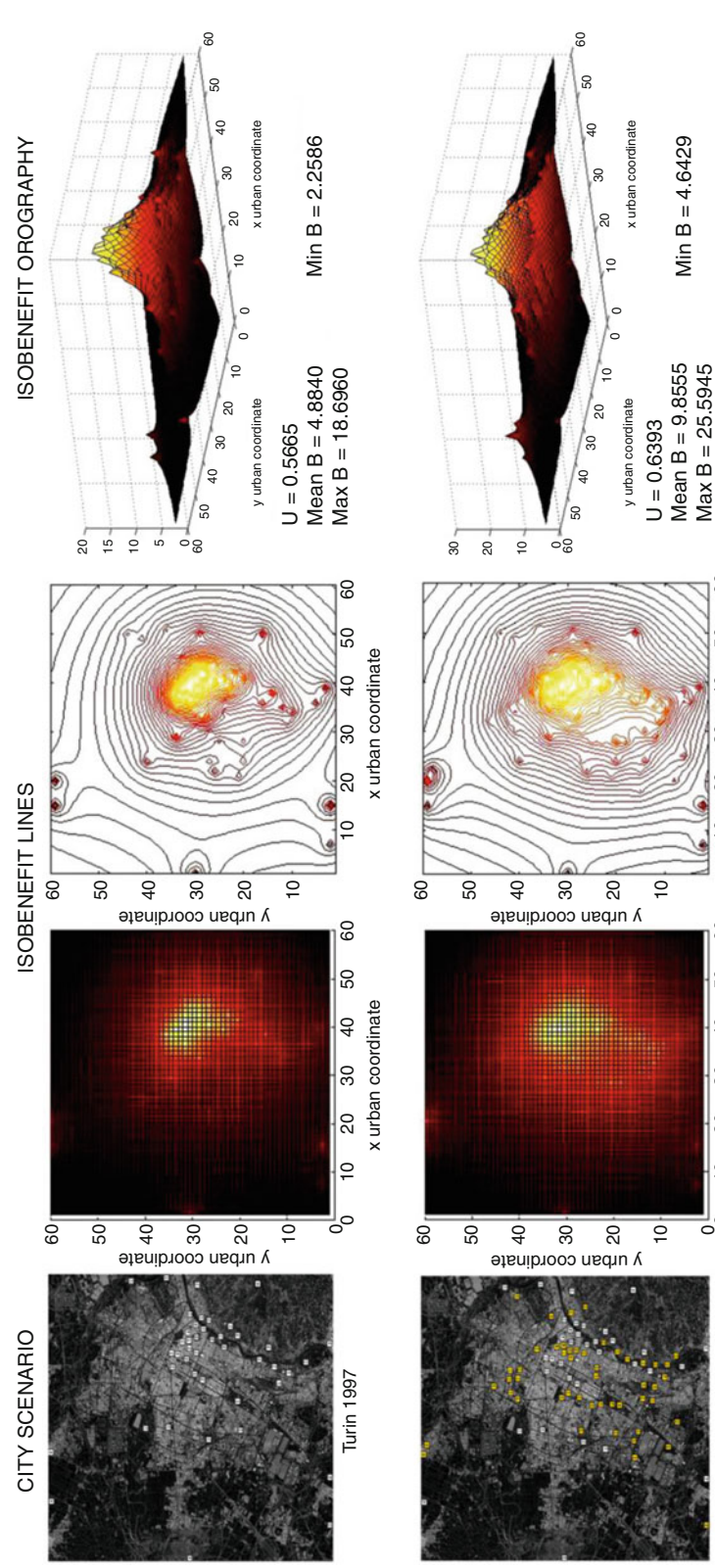
Under those conditions, *PGG* of the person *x* can be visualized/measured by overlapping/subtracting the Isobenefit Lines of *x* and the Isobenefit Lines of the majority of people.

Breaking Point of Equal Attraction

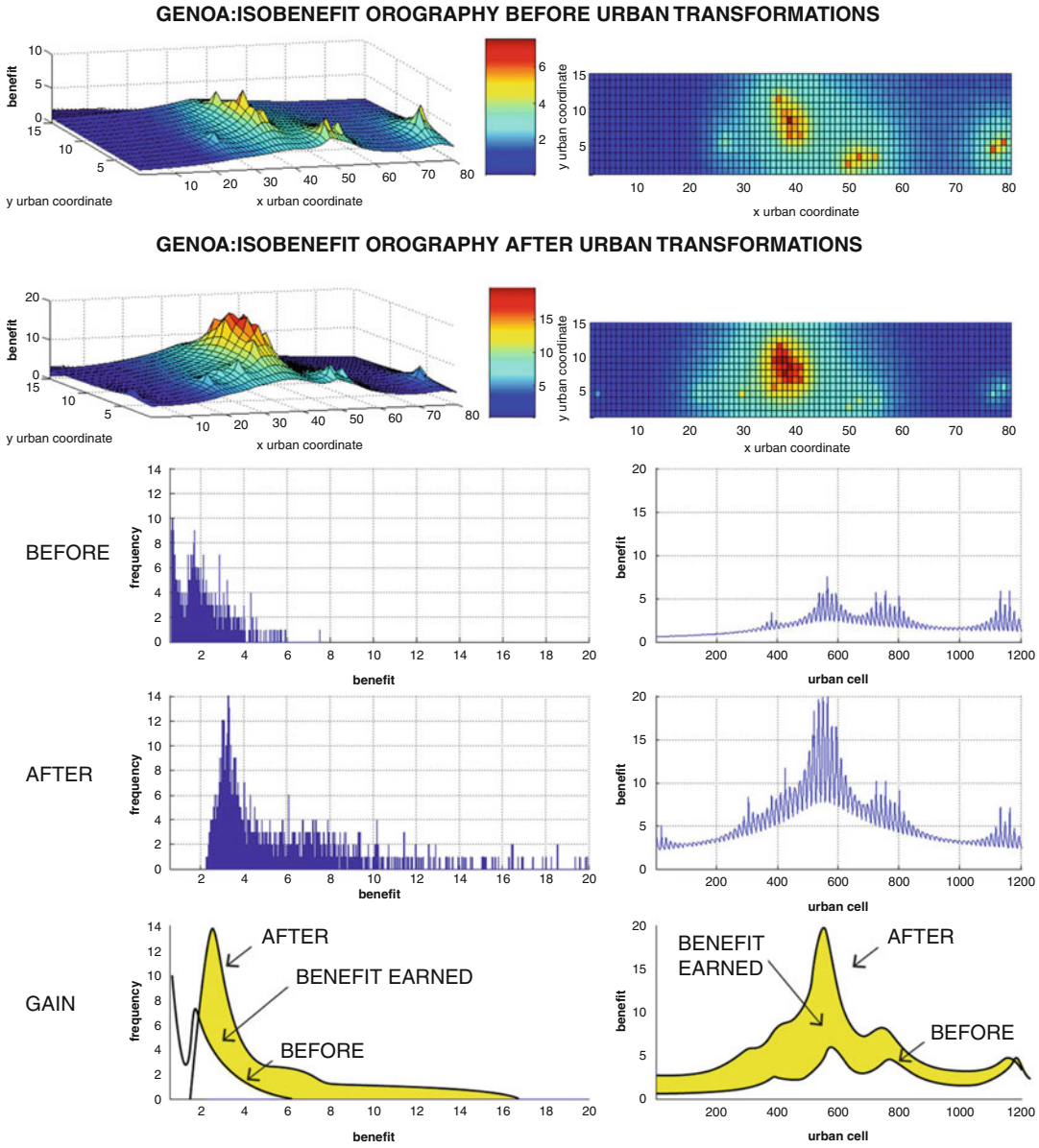
The breaking point of the boundary of equal attraction between urban amenity 1 and 2 is the point *Br* shown by the Isobenefit Lines in Fig. 6.



Urban Isobenefit Lines, Fig. 7 Isobenefit Lines analysis for Turin (D'Acci, 2012)



Urban Isobenefit Lines, Fig. 8 Isobenefit Lines analysis of Turin: planimetry visualization (D'Acci, 2009a, 2013c)



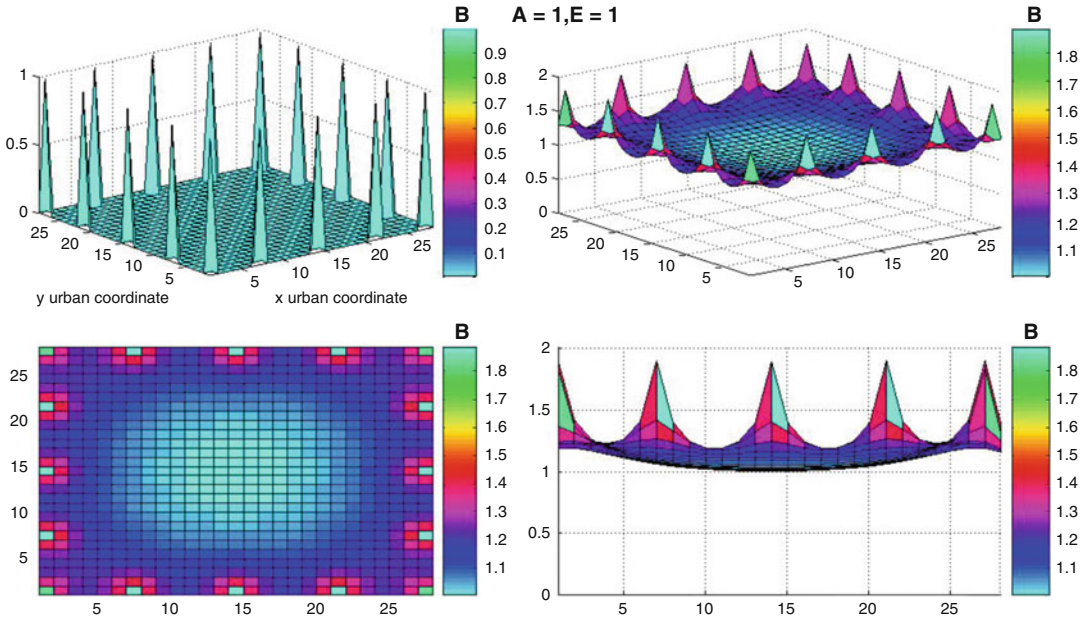
Urban Isobenefit Lines, Fig. 9 Isobenefit Lines analysis of Genoa, before and after its transformations

It is the minimum value of benefit between the two amenities. *It is the point at which a marble placed in the Isobenefit surface settles* (D'Acci, 2013c).

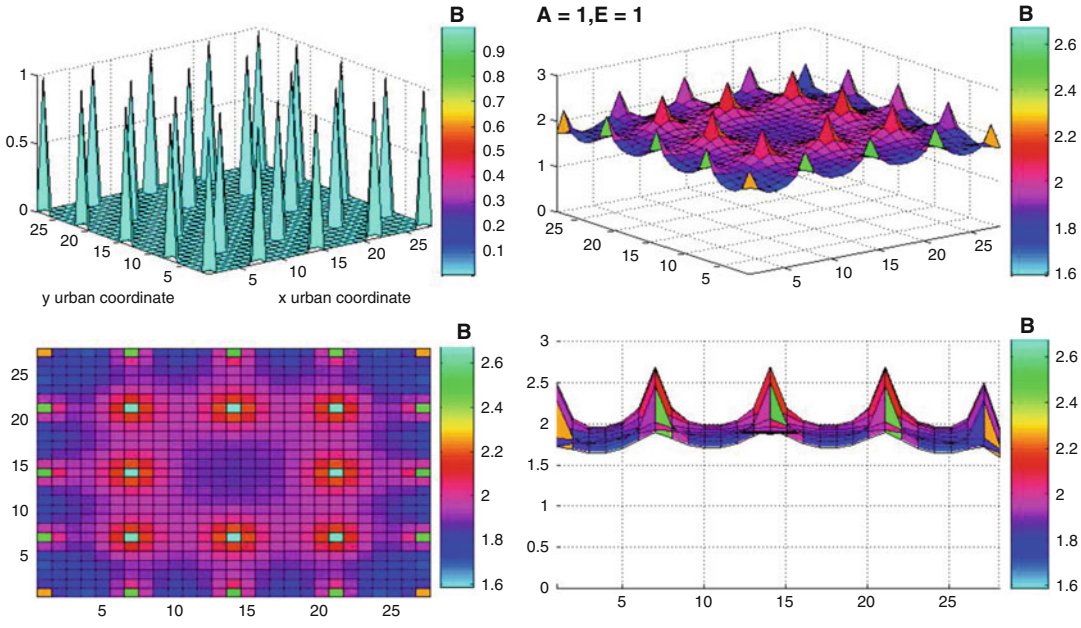
As a consequence of Personal Isobenefit Lines, the breaking point can be personal: one can prefer a closer amenity even if less attractive, giving then a high importance to the Proximity Value. Change of preference also happens for a same person at a different stage/age of his/her life.

Some Real Applications

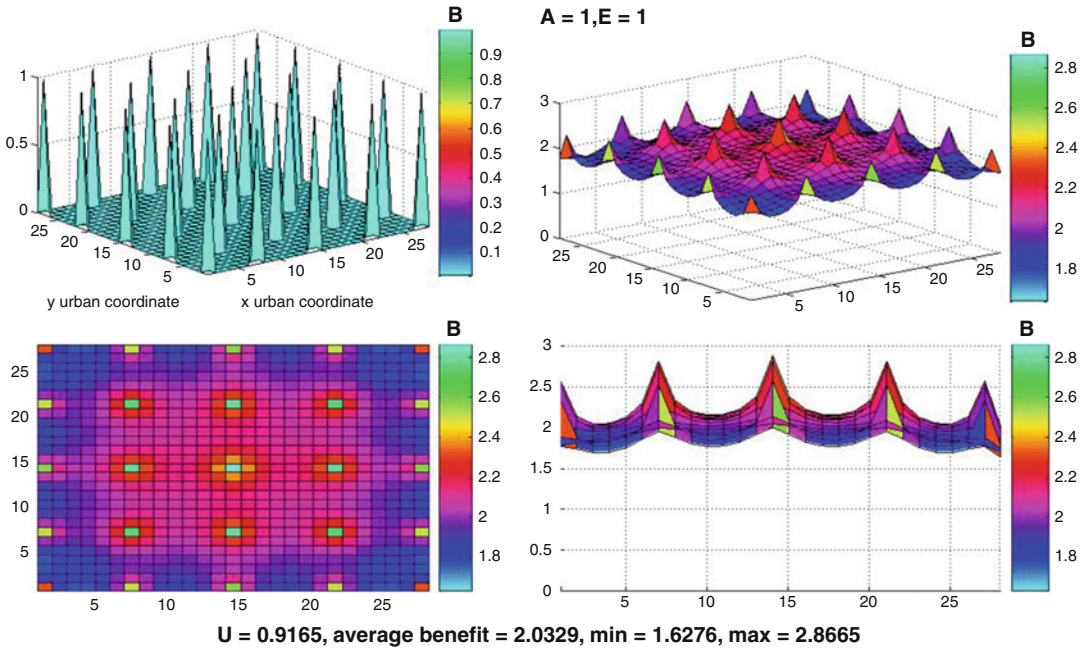
Figure 7 shows an *Isobenefit Lines Analysis* before and after the recent urban transformations of Turin (D'Acci, 2009a): the abscissa is *B* (Eqs. 1 and 3), the ordinate is the frequency.



Urban Isobenefit Lines, Fig. 10 Isobenefit Lines example of a Ring City (D'Acci, 2013a)



Urban Isobenefit Lines, Fig. 11 Isobenefit Lines example of a Double Ring City (D'Acci, 2013a)



Urban Isobenefit Lines, Fig. 12 Isobenefit Lines example of a Homogeneous City (D'Acci, 2013a)

We can plot Bk (ordinate) of each urban point, *k*, (abscissa) (Fig. 7, first row).

Figure 8 visualizes the Isobenefit Lines of Turin, before and after its urban transformations, on the planimetry.

Figure 9 shows an Isobenefit Lines Analysis for Genoa before and after its urban transformation of the last decade.

Some Utopian Applications

Isobenefit Lines can be a basis for simulations of virtual societies (D'Acci 2013a).

Examples are the *Isotropic Cities* of D'Acci (2013a): utopian cities where each individual is able to enjoy an equal level of well-being and advantage from the urban quality of life against location. Types of virtual societies habitats are, i.e., the *Ring City* (a city without the "city center," where the "city center" is all around the peripherical ring, Fig. 10, or in a serial of rings, Fig. 11), the *Homogeneous City* (a city where the "city center" is everywhere, Fig. 12), and the *Annulus City* (a city without any geometrical center in the city) (D'Acci, 2013a).

The following figures show Isobenefit Lines simulation examples of the Ring City (Figs. 10 and 11) and the Homogeneous City (Fig. 12):

Discussion

> In recent years, city planners have begun to place more emphasis on developing additional centers within cities. So it's increasingly common for a city to have several centers performing different functions. D'Acci's new model is designed to cope with this increased complexity. [...] D'Acci's approach is clearly a step forward. He points out that there is a strong correlation between Isobenefit Lines and property prices. That's a good indication that the model captures some important elements of human behavior. (MIT Technology Review, 2012)

Isobenefit Lines offer a broad range of applicability such as in Location Theory, Urban/Geographical Gravitational Models, urban economics, positional decision processes made by citizens, spatial equilibrium, land value, and property market.

Cross-References

- ▶ City Culture Maps
- ▶ Social Policy
- ▶ Social Welfare
- ▶ Social Well-Being
- ▶ Urban Life, Quality of
- ▶ Urban Morphology and Citizens' Life
- ▶ Urban Renewal

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Urban Life, Quality of

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Synonyms

City quality; Neighborhoods' quality; Urban living conditions

Definition

The concept of quality of urban life regards the living conditions in ▶ urban areas and mainly in the cities.

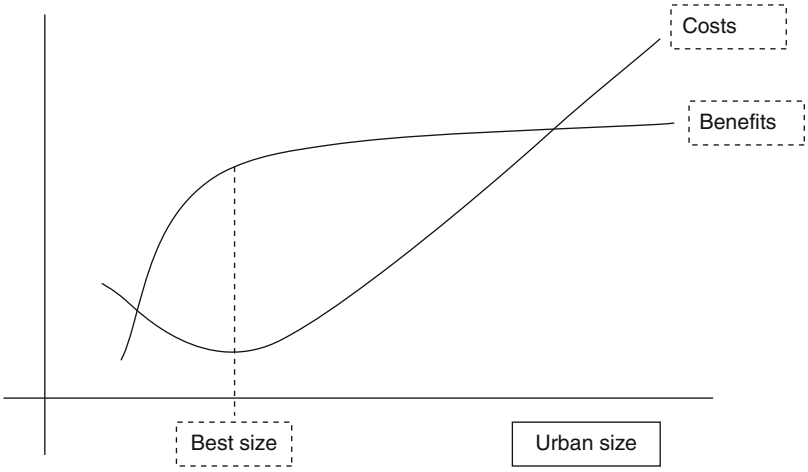
Description

Research on quality of urban life became important during the last 50 years in order to:

1. Measure living conditions in a city by ▶ neighborhoods.
2. Measure living conditions in a city by different periods.
3. Measure living conditions in the cities as opposed to living conditions in the rural or noncompletely urban areas (in a period or by different periods).
4. Measure living conditions in different cities inside a single country or between cities in different countries (in a period or by different periods).

Many studies have been oriented to compare cities of different countries and regions or by size in order to find out the best predictors of their quality of life. In particular several scholars have analyzed the relationships between quality of life and urban size and density (Cicerchia, 1996, 1999; Cramer, Torgersen, & Kringler, 2004; Elgin, Thomas, Logothetti, & Cox, 1974; Royuela & Suriñach, 2005) starting from the so-called *optimal city size theory* tested through empirical studies. In line with this model, the optimal size for a city is the one in which the positive difference between benefits and costs is higher (Fig. 1).

> (1) The size of an urban place is an important factor that can contribute to and detract from quality of life conditions; it therefore deserves a primary place in the formulation of national growth policy. (2) In general, the quality of urban life, as measured across non-economic dimensions, seems to decline as urban scales increase. (3) The extent to which this quality of life difference is acceptable seems to depend largely upon economic trade-offs; the economic rewards must compensate sufficiently for apparent net social, environmental, political preferential and systematic disamenities which accrue as



Urban Life, Quality of, Fig. 1 The optimal city sized theory (Source: elaboration of Nuvolati (2009) on Cicerchia (1999))

> urban scale increases; otherwise, one could expect a spontaneous reversal in migration patterns away from larger cities to occur. (Elgin et al., 1974)

According to the more traditional studies on quality of life, we can distinguish between an objective and a subjective approach: the first based conclusions on official statistics about the city (objective social indicators); the second based conclusions on survey data (subjective social indicators). In both cases, the starting point is a selection of concerns. We have here the first important questions: do we have specific concerns regarding quality of urban life? For example, can we assume that criminality and pollution are mainly urban problems and therefore that we should study these domains more than other concerns like leisure, health, and wealth? Normally, there are no evident differences between quality of life research and quality of urban life research in terms of concerns. The list of concerns we add (Santos & Martins, 2006) could be considered as a good example for analyzing quality of urban life:

Environment Conditions
Green spaces
Climate
Noise
Air quality
Bathing water quality
Basic infrastructure

Collective Material Conditions
Cultural facilities
Sport facilities
Educational facilities
Social and health facilities
Heritage
Mobility
Retailing and services

Economic Conditions
Income and consumptions
Labor market
Housing market
Economic dynamism

Society
Population
Education
Cultural dynamism
Civic participation
Health
Safety
Social problems

The main constraint in performing quality of urban life research is methodological. What we mean by cities or urban areas or metropolitan areas changes countries by countries. Many criteria have been adopted by National Statistical Offices in defining territorial units – density, socioeconomic space homogeneity, space morphology, commuting flows – and therefore in providing ecological data. In general the

amount of statistics about cities is not very large, and many problems arise when we have to compare cities in different countries (Directorate-General for Regional Policy of the European Commission – Eurostat).

Problems even increase if our goal is to study living conditions in neighborhoods. Several social surveys have been recently developed in order to study quality of urban life, but these are mainly at the local level, and comparative analyses are still quite difficult to make.

Researchers have to deal with another problem related to the composition of a city's daily population. Cities are currently characterized by the presence of different populations: inhabitants, commuters, city users, tourists, and metropolitan businessmen, competing in the processes of accessing, controlling, and using resources and services. Local communities are no longer stable and closed entities but interact constantly with different populations coming from different places. Therefore, in order to study quality of urban life, problems and opportunities in the communities must be analyzed considering the daily flows of people using resources and services located in the city or core.

Finally ecological data, often used to study urban living conditions, are not adequate, because of disparities between social groups inside the city.

Despite these constraints, research on quality of urban life generates a growing interest. As a matter of facts, cities become the most important actors of the ongoing process of globalization. They are the engine of the countries' socioeconomic development and, at the same time, they are more and more independent from central authorities and policies. Local ▶ welfare, city networks, urban ▶ accessibility, and openness are relevant concepts in the analysis of modern urban society and ask for a deeper investigation of the relationships between the quality of urban life of resident and nonresident populations.

Cross-References

▶ Subjective Indicators
▶ Urban Areas

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Urban Living Conditions

▶ Urban Life, Quality of

Urban Migration in South Africa

▶ South African Urban Growth (1911–2000)

Urban Morphology and Citizens' Life

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Synonyms

Study of urban form; Typomorphology

Definition

Urban morphology refers to the study of urban form that focuses on the formation and transformation of urban forms of cities, towns, and villages over time; their spatial patterns at different scales; and physical characteristics to inform appropriate urban interventions to promote sustainable urban development. The concepts and approaches to the study of urban form are multidisciplinary. Relevant subject fields are ranging from human geography, urban planning, urban design, architecture, and sociology to cultural studies. Urban morphology usually benefits urban management, design and planning, urban conservation and regeneration, as well as urban policy-making in general to contribute to social economic and environmental ▶ sustainability.

Description

The earliest influential study of urban form was probably the Nolli Map of Rome produced by Giambattista Nolli in 1748 which vividly represented the spatial structure of the city in two components: figures (solids) and the ground (voids). Although the Nolli Map also employed the concept of public and private ownerships of urban spaces to differentiate urban components, the recognition of figures and the ground has been the basic understanding of urban configuration that is widely accepted today. In addition to the figure-ground theory, in the field of urban design, two other approaches to the understanding of urban form were mentioned by Trancik as the linkage theory and the place theory (Trancik, 1986). While the figure-ground approach clarifies the boundary, hierarchy, and order of the space, the linkage theory is about the linear spaces connecting one urban element to the other and the spatial sequence of the city. The place theory brings up the understanding of urban form to a humanistic level that stresses the social and ▶ cultural values of the physical spaces, of which the concept is originated from architectural phenomenology.

According to Anne Vernez Moudon (1994), urban morphology as a body of knowledge is based on the scholarly work of the three schools, the British Morphological School, the Italian Typological School, and the French Versailles School, each of which has developed a particular set of concepts and approaches to the study of urban form. The British Morphological School is founded on the German geographer M.R.G Conzen's work, in particular, his pioneer study of the English small town Alnwick (Conzen, 1969). He developed a valuable methodology for the study of urban form which consists of the town plan, ▶ land use patterns, and three-dimensional building forms. His cartographic approach based on the reading of successive historical maps of a city or a town, the so-called plan analysis, is regarded as the most fruitful approach among others by morphologists to analyze urban transformation over time. The plan analysis recognizes that a town plan further comprises plots, streets, and building-block plans, of which the characteristics could suggest the delimitation of plan units. Based on the analysis of the town plan, land use, and building types, morphological regions can be delimited, each of which presents homogeneous morphological characteristics. This is beneficial for defining boundaries among urban areas for urban management and conservation where different strategies can be adopted in different morphological regions. Building upon case studies from various European cities and towns, Conzen and his fellow scholars developed a set of rich concepts or terminologies to conceptualize phenomena occurred in the process of European urban transformation, such as morphological period, morphological frame, fringe belt, and burgage cycle (Larkham & Jones, 1991). The potential of these concepts in understanding urban forms of different contexts and their practical implication has always been topics for further exploration.

During the similar period as that of Conzen, the Italian architect Saverio Muratori regarded buildings and towns as a constructive process over time based on his research on collectively developed Italian towns and villages (Muratori, 1959). He used the term *organism* on the analogy of nature to describe the gradual and spontaneous transformation of urban form over time and advocated that the history was operational for

contemporary development. All building creations came from and should be from historically and locally derived *types* which were ideal forms embedded in local residents' spontaneous consciousness. His concept was further developed by Gianfranco Caniggia in architectural and urban design terms which became the foundation of the Italian Typological School. In the publication of Caniggia and his colleague Gian Luigi Maffei (Caniggia & Maffei, 1979), they place ordinary vernacular buildings and their wider urban tissues at an important position of morphological study, because such forms, in particular, types of such forms, bear rich cultural meaning. The examination of the transformation of ordinary types of buildings and urban fabrics therefore reveals how local residents have gradually adapted forms with their changing needs over a long period of time, which is conceptualized as the typological process. The series of types which have gone through a typological process is extremely valuable for the local culture because they were selected, shaped, and maintained by the culture and the collective. The Italian architects who share the same understanding as Muratori and Caniggia have been actively using this theory in design practice to fit new development harmoniously with the existing context.

Work produced by the French Versailles School followed the Conzenian and Muratorian philosophies but developed their theory with a closer link to the social production of spaces presented in the work of the sociologist Henry Lefebvre (1991) and to the discipline of design and planning. Jean Castex and Philippe Panerai within the school are perhaps the first to mention the term *typomorphology* (Castex & Panerai, 1982), which is the reciprocity of British morphological and the Italian typological approaches. The aim of typomorphological study as evidenced from their publications (Castex, 1979; Panerai, Castex, Depaule, & Samuels, 2004) was to, first of all, describe the transformation of urban form and, second, identify design models (Moudon, 1994, p. 303). They attempted to employ a typomorphological approach in design practice, but their approaches were hardly consistent across different designers and have not been well reported in literature.

British morphologist Karl Kropf tried to examine the conceptual foundations of Conzenian and Muratorian approaches in order to justify the union of the two in his doctoral thesis. But how exactly typomorphology could inform design practice and whether it could be contextually sound have not been explored any further. A question with regard to the applicability of typomorphology in various contexts lies in the fact that both Conzenian and Muratorian theories were developed in a particular cultural context: British and Italian. Furthermore, the relationship between urban form and the social production of spaces, in other words, the political socioeconomic foundation of urban form which was once mentioned in the French School in the 1970s and 1980s, was almost forgotten in later studies. Fei Chen and Kevin Thwaites' (2013) recent work on the development of typomorphology in Chinese urban design in relation to the social aspect of urban transformation is an attempt to tackle this issue. It is promoted in the book that typomorphology as a design theory is able to give urban intervention a better chance to deliver socioculturally sustainable outcomes by recognizing social and cultural significance of certain urban form and adapting into the local legal design and planning framework. Through this way, the study of urban form is closely linked with citizens' lives, which will be explained in more details later.

Another group of scholars and practitioners actively promoting the study of urban form for design practice has been the ▶ New Urbanists in the USA since the 1990s (Katz, 1994). Their ideology is related to the neo-traditionalists' call to recognize the spatial quality of traditional European urban spaces against the Modernist, car-oriented contemporary cities. Therefore, the New Urbanists generally use traditional European building types, street layouts, and neighborhood patterns in the new development of towns and neighborhoods in the USA. They are also trying to offer solutions to development control through their so-called SmartCode. There are debates and criticisms in literature support or against their approaches and practices.

Nevertheless, their activities demonstrate the usefulness of urban morphology in directing changes of our physical environment.

There are other approaches to the study of urban form in addition to that of the aforementioned schools. According to Karl Kropf (2009), four distinct approaches to urban morphology can be identified in literature: the spatial analytical approach, configurational approach, process typological approach which refers to Muratorian ideas, and the historico-geographical approach which refers to the Conzenian methods. The spatial analytical approach is evidenced in Michael Batty's work at University College London which uses ▶ GIS, cellular automata, agent-based models, and fractals to understand the spatial structure and dynamic of cities. In this approach, physical forms and uses are deliberately blurred at different spatial scales, as Batty considers use or activity distribution in the ▶ urban environment would coincide with built-up areas. This approach does not intend to predict or describe accurate morphological changes but to indicate the basic mechanism of city growth. The configurational approach refers to Bill Hillier and Julienne Hadson's space syntax theory that links the spatial structure with the generic function of movement and visual permeability to predict pedestrian density and land uses (Hillier & Hanson, 1989). For them, physical form is the arrangement of spaces, each of which can be identified by its relative position in the whole system of configuration. Movement and people's perception of the relative position of *here* in relation to *there* are thus the way to discover the spatial system. The functional and human perceptual aspects endow the space syntax theory a humanistic dimension. However, the aesthetic characteristics of urban form are obviously disregarded in both the spatial analytical and configurational approaches. The practical implications of the two approaches are limited due to their oversimplification of human behavior and the complexity of the urban environment.

So why are urban form and the study of urban form related to citizens' lives? We need to understand the relationship between urban form and the social political economy. On the one hand, urban form is the production of society under specific political, cultural, and economic conditions. In human history, urban form has always been influenced and determined by natural, political, economic, social, religious, technological, and cultural factors which may be weighted differently in different situations. In most cases, all factors present, and only in very rare cases, one of the factors is missing entirely in the process of shaping urban form. It emerges as a consequence of the conflictive process between historical actors in society and changes along with the shift of conflictive interests among social actors, as well as changes of the aforementioned factors to meet the changing human needs. It is therefore clear that urban form is never independent from society or autonomy but a result of human interventions to nature, which is sometimes in a piecemeal manner and sometimes radical through central planning and drastic implementations. For instance, the agora area of Athens was shaped by the traffic flow along the Panathenaic way to the Acropolis over hundreds of years, Miletus and the Chinese city Chang'an shared the same grid pattern but were embodied different political ideologies, the shape of Regent Park in London was determined by the boundary of land ownership, Chinese classic gardens were arranged following the traditional philosophy of Taoism, and so on so forth.

On the other hand, certain urban form affords particular possibilities of human activities and constricts others. Any pattern of urban form affords some patterns of behavior, and the meeting of some aesthetic tastes more easily than it affords others, suggested by the Affordance Theory (Heft, 1988). There is a need to recognize potential functions of a particular urban pattern to facilitate certain activities and prevent some others such as crime and vandalism. The functions of urban form, in a boarder sense, are not only to accommodate human activities such as living, working, commuting, and entertaining but also to serve human aesthetics, represent cultural meanings, and fulfill human senses of place, community, security, and esteem (Lang & Moleski, 2010). Urban form crystallizes and represents culture, religions, and philosophy through symbolism that can be understood by local citizens and

contributes to their connectedness to the local areas. Over time, they build up the sense of place, sense of community, and sense of security which contribute positively to their quality of life. This is evidenced from traditional settlements around the world where the identity of culture and community spirit are largely appreciated.

Urban morphology always involves studies of human-environmental relationship in multiple dimensions. According to Mathew Carmona and others (2003), these are perceptual, social, visual, functional, and temporal dimensions in particular. The study in each dimension implies certain desired qualities of the physical environment to support human well-being. First, environmental perception refers to human sensory systems reacting to the environmental stimuli of visual, vocal, chemical, tactile, thermal, and kinetic senses. Using such senses, human receives and processes information about the environment to orient oneself and distinguish one place from the other. Over time, they build up a *cognitive map* in their mind to help them find ways and make sense to the urban form. A legible pattern of urban form both in terms of way finding and symbolism is desirable in urban intervention. Identity is also considered important for urban form to be easily recognized by people and benefit place making. Second, social study of the urban environment focuses on the supportive and constrictive role of urban form to social activities, especially the functionality of public spaces. It is self-evident that the more welcoming, safe, and interesting the public space is, the more likely ▶ social interactions are promoted and social mix and ▶ social cohesion being facilitated. Third, research in the visual dimension of urban form has a long tradition. Visual qualities of rhyme, pattern, ▶ harmony, balance, and ▶ beauty have certainly been concerns of urban development that serves the basic human aesthetic need. Fourth, the functional study of urban form searches for land use compositions of the best performance in terms of energy efficiency and travel minimization among alternatives. Public transport provision, mixed-use, road network permeability, and compact forms are often adopted in urban development as they give urban environment a better chance to be sustainable. Last but not least, the study of urban form often takes a time-sensitive perspective as urban form inevitably experiences transformation in lower or higher degrees during different periods of development. The current state of knowledge suggests that urban form needs to be flexible and adaptable in time to save resources and to be self-sufficient. Urban morphology with the study in other dimensions directly or indirectly benefits citizens' lives if the aforementioned urban qualities are achieved in practice: legibility, identity, social mix, imageability, energy efficiency, permeability, adaptability, and vitality.

Summary

The above briefly reviews the development of urban morphology as a body of knowledge in understanding the configuration of the physical environment, its formation, and transformation over time. Several schools of thoughts and approaches have emerged in separate disciplines such as human geography, architecture, planning, and sociology. They are the British Morphological School, Italian Typological School, French Versailles School, the London School of Planning, and, most recently, the New Urbanists. Their approaches need to stretch beyond the analysis of urban form to various dimensions related to human experiences and behavior. The study of the complex human-environmental relationship in general feeds back to the practice of urban intervention including urban design, planning, conservation, urban regeneration, and policy-making. Through creating quality urban environment and appropriate urban management, they ultimately improve citizens' quality of life.

Cross-References

▶ Built Environment
▶ New Urbanism
▶ Sense of Place
▶ Spatial Analysis
▶ Spatial Planning (Europe)
▶ Sustainable Development
▶ Urban Design

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Urban Planning

▶ Land-Use Planning
▶ Planning, an Overview
▶ Planning, Spatial

Urban Quality

▶ Quality of Place

Urban Quality of Life

▶ Urban Health

Urban Quality of Life Estimates

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Synonyms

Monetary quantification of urban happiness

Definition

The estimation of the urban life quality (ULQ) is a multi-attribute procedure that involves a monetary evaluation of various nonmarket costs and benefits and the quantification of qualitative characteristics like aesthetic and "feeling factors."

Description

Urban Quality of Life as a Multi-attribute Evaluation

The ULQ is a hierarchical multi-attribute concept characterized by several underlying attributes that, in turn, are defined by more specific underlying attributes. These attributes are environmental quality, ▶ air quality, green, jobs, medical system, social conditions, urban quality, architecture quality, pedestrian areas, etc.

To estimate the urban quality of life is a complex quality assessment of many different

features that must be considered simultaneously (Ulengin et al. 2001; van Poll 1997; D'Acci & Lombardi 2010). The behavioral decision theory provides a number of methods for the analysis of multi-attribute objects/concepts.

Relevant Attributes

Several methods are used to identify the relevant attributes of objects/concepts. For instance, they can be elicited by reviewing literature, by interviewing significant people (i.e., experts, residents), or by using common sense.

Among the techniques for interviewing, we can separate direct questioning and indirect questioning. In direct questioning, the interviewee is asked to give a preference for an object and justify it. This technique is built on the presupposition that the respondent already knows well which attribute is determinant for his preference. It is also assumed that he is able to quantify the influence of each attribute on his preference.

Indirect questioning refers to any other survey technique in which the respondent is not directly asked which attributes determine his preference.

Structuring Attributes

Two methodologies may be distinguished for structuring attributes: top-down method and bottom-up method.

The top-down approach, also called analytic method, starts by creating a list of semi-specified relevant attributes characterizing the object (D'Acci 2010b). In this case, the object is the "urban quality of life"; therefore, the "object" is a "concept" because it is not a material entity like a car, house, or television.

A semi-specified, abstract attribute could be, for example, "environmental quality." It is split up into more specified attributes such as "air pollution," "traffic," and "green areas."

The specification of the attributes continues until a level of attribute concreteness is reached, and they can be adequately measured (e. g., concentration of toxic substance in the air in micromole per cubic meter, sound pressure level in decibels, square meter of public gardens). These are the end-level attributes.

The bottom-up method is a synthesis of concrete, well-specified attributes that are grouped together to yield greater abstract, less well-specified attributes. This aggregation process of these so-called higher-level attributes, into groups, is continued until only one attribute remains: the top-level attribute. Either in the top-down and bottom-up method, the more abstract the attributes are, the higher they are located in the hierarchy; the more specified they are, the further down they are.

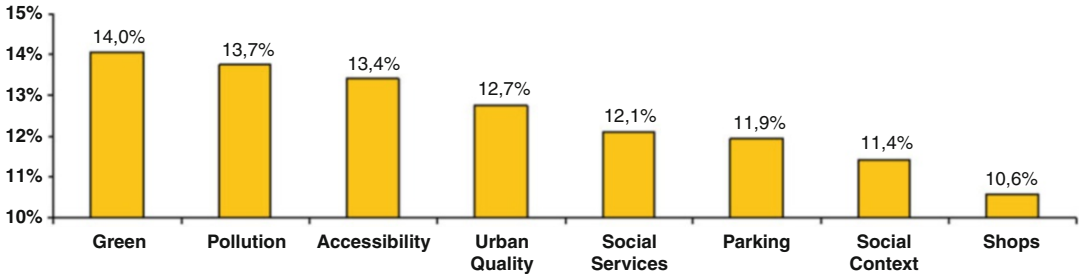
The top-level attribute divides and grows into more and more detailed, concrete attributes until the end-level attributes form a "value tree."

Attributes' Weights

The weight of an attribute indicates its influence on the overall value of the object. The analyzed object is the ULQ; the weight of the attributes that build it (green, pedestrian area, pollution, etc.) estimates how much each attribute influences the level of the quality of urban life.

The concept of weight is defined with regard to specific theories of preference that can be categorized as preference aggregation, constructive modelling, and preference disaggregation, reconstructive modelling. Therefore, the assessment of the attributes' weights may be done in two ways.

In the constructive approach, the concept of the ULQ is built up from its underlying attributes. Their weights are directly measured by ranking or rating methods. In a ranking method, the respondent is asked to set a list of attributes in order of importance (1st, 2nd, 3rd, etc.). Several alternative variants have been proposed for this purpose, such as the pair-wise comparisons, which constitute the basis of the analytical hierarchy process (AHP), the multi-attribute value theory for decisions under certainty, and the multi-attribute utility theory for decisions under risk. The term "value" is used when the attributes are available to be quantified by an objective unit. The term "▶ utility" is used to express a subjective value received from the attributes. The pair-wise comparisons of the AHP judge the importance/influence of each attribute in relation to the others. For example, considering the object



Urban Quality of Life Estimates, Fig. 1 Characteristics weights (in %) of 1,300 respondents about Urban Life Quality (rating method. Turin city) (Source: D'Acci, 2008)

ULQ and three attributes such as air pollution, parks, and pedestrian areas, the respondent is asked to say how much more or less important "air pollution" is in comparison with "parks" for the ULQ, then in comparison with "pedestrian areas," and then "parks" in comparison with "pedestrian areas." Mathematical passages give the relative weights.

In a rating method, he is asked to rate the list of attributes independently of one another.

In a reconstructive approach, the global judgment (value, preference, utility) about the object is broken down to yield the relative weight of the underlying attributes. The classical most used mathematical-statistical structure which allows this is the ▶ multiple regression. It is the basis of analysis like the hedonic pricing method and the conjoint analysis.

An example of attributes' weights of the ULQ is shown in Fig. 1 where the weights of the attributes are deduced by a constructive method based on a rating evaluation surveying around 1,300 people in a city of one million inhabitants (Turin) (D'Acci, 2008).

Hedonic Pricing Method

The hedonic pricing method (HPM) dates back at least to the 1920s. It was however only in the second part of 1900s that it started to receive more attention. Some early applications focused on agricultural and, more recently, on the healthcare industry, housing market, artwork, etc.

HPM has been used in a housing context to determine the impact of bads (e.g., pollution) or goods (e.g., public parks) on house prices.

The quintessence of HPM is that objects are conceived as possessing a value (or utility) composed by its constituting value of components. By this approach, it is in part possible to consider the real estate value as a barometer for the state of the general ▶ quality of life that a citizen is expected to receive when buying a certain house in a certain city area.

The housing price is determined by intrinsic and extrinsic characteristics. The intrinsic characteristics are all the factors strictly connected to the house (flat, building) such as number of rooms, windows, balconies, floor, building aesthetics, artistic finishes, and technical facilities.

The extrinsic characteristics include all the factors describing the area where the real estate unit is, such as urban quality (quality of roads, buildings, squares), green (public parks and gardens), social context, public transport, proximity to the city center (and/or some city cores), beauty views, historical value of the area, and pollution (atmospheric, acoustic).

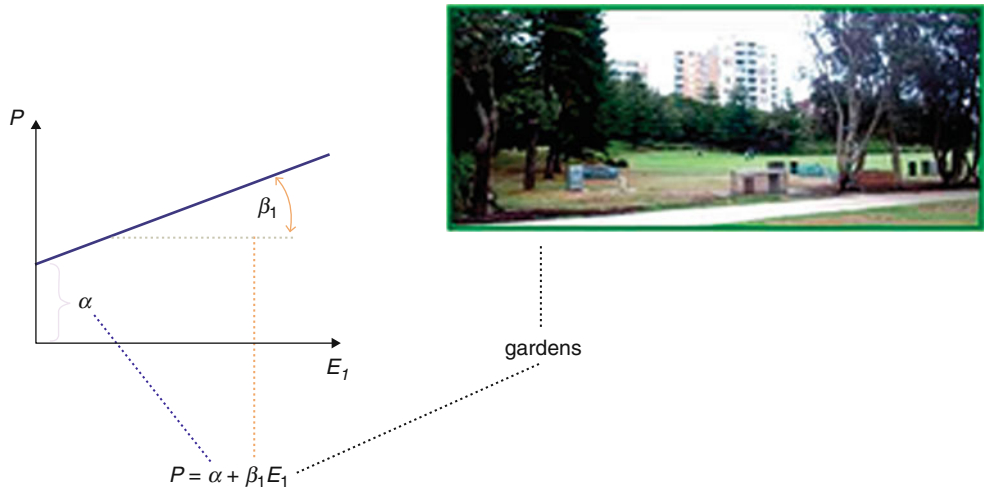
Calling the housing price P, the intrinsic characteristics I, and the extrinsic E, we can express the price as function of I and E:

$$P = f(I, E) \tag{1}$$

In the case of linear relations, the hedonic function can be described by the following simplified form:

$$P = \alpha + \beta E + \gamma l + \varepsilon \tag{2}$$

Having n observations (number of housing prices known), k intrinsic characteristics considered, and m extrinsic characteristics considered,



Urban Quality of Life Estimates, Fig. 2 Author elaboration on author's photo

P is an $(n \times 1)$ vector, I is an $(n \times k)$ matrix, and E is an $(n \times m)$ matrix; α, β, and γ are the associated coefficient vectors, and ε is an $(n \times 1)$ vector of ▶ random error terms.

Having an accurate sample of housing units, their prices (P), and their I and E measurements, the statistics offers several methods (e.g., multiple regression analysis), to deduce the influences (β, γ) that each characteristics has on the formation of P.

The partial derivative of the function with respect to a characteristic represents the marginal price of that characteristic (also called hedonic or implicit price).

The hedonic price of each extrinsic characteristic, P_i^E, and the hedonic price of each intrinsic characteristic, P_i^I, can be expressed by the following equations:

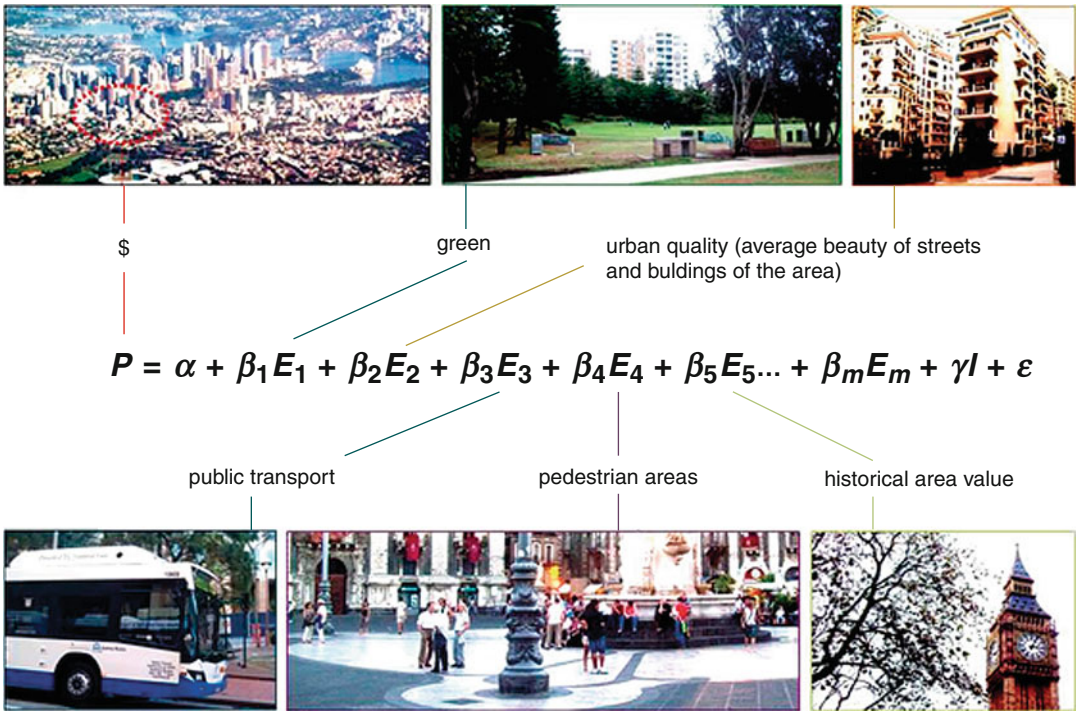
$$\begin{aligned} P_i^E &= \partial P / \partial E_i \quad (i = 1, 2, 3, \ldots, m) \\ P_i^I &= \partial P / \partial I_i \quad (i = 1, 2, 3, \ldots, k) \end{aligned} \tag{3}$$

This is equivalent to saying that the coefficient β (or γ) of a characteristic is the marginal price of that characteristic. In other words, it indicates how much the housing price increases (or decreases) just with regards to an increase of a unit of the value of a certain characteristic, keeping all the other characteristics fixed. For example, it shows how much P increases when the characteristic "green" increases of a unit, but all the others remain the same. If the relation between the characteristics (independent variables) and P (dependent variable) is linear, we can use a linear regression (Eq. 2). The characteristics having a qualitative structure (i.e., the aesthetical) could be quantified in a numerical scale by comparative judgments among each area of the analyzed city. Then, for example, using a scale from 1 to 5 to quantify the characteristics, the marginal price of the characteristic "green" states how much P changes when the variable "green" passes from 2 to 3 (or from 1 to 2, 3 to 4, etc.). This information is given by its β coefficient, and, in the supposed linear condition, its geometrical meaning is shown in Fig. 2: the coefficient is the angular coefficient of the straight line that relates P and E_1 (Fig. 3).

The HPM applied for the real estate value (Hill 2011; Rosasco 2010; Jim & Chen 2007; Morano 2006; Simonotti 1997), therefore, suggests a way to quantify – and directly in monetary terms – the incidences of urban factors on the quality of life that citizens receive when buying their own house and living in a certain area of the city instead of another.

Willingness-to-Pay

By this method, the interviewee is asked what he would be willing to pay for a product/service/feeling, or to maintain the existence of it, or what



Urban Quality of Life Estimates, Fig. 3 A Multi-regression example

compensation he would accept for its loss. In the last two cases, we talk about contingent valuation.

For example, the willingness-to-pay could be asked for a reduction of traffic and air pollution, or an increase of bike lanes, parks, and pedestrian squares, or for not allowing a nice present pedestrian square becoming non-pedestrian, or a nice public garden becoming a car street, etc.

There are two main approaches to estimate the willingness-to-pay: the stated preferences and the revealed preferences.

In the methods based on the stated preferences, the surveyed is directly asked his willingness-to-pay for or is asked to choose among a number of hypothetical scenarios (i.e., conjoint analysis) that differ for the price (P) and the characteristics we want to estimate the value (i.e., parks in front the house, noisy traffic in front the house, public transport, distance from the city center).

The revealed preference approaches include all the methods based on the real market choice of people: what they really have chosen and bought (i.e., HPM).

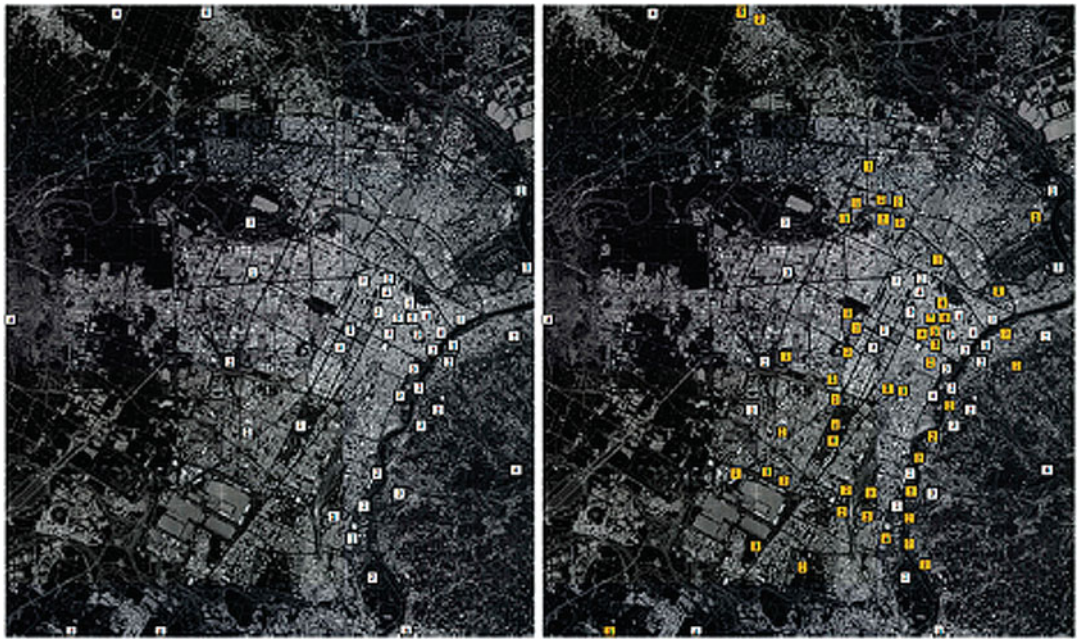
Cost-Benefit Analysis

A ▶ cost-benefit analysis estimates the total equivalent monetary value of the benefits and costs to the community to judge the feasibility of a project (or decision, government policy, etc.), from a social point of view, or to compare several projects. It dates back to the middle of the 1800s with the French engineer Jules Dupuit. Therefore, some of the formal concepts that are at its basis were formulated from the British economist Alfred Marshall.

It compares the total expected cost against the total expected benefits, to evaluate if the benefits prevail over the costs, and by how much. All flows of costs and benefits over time have to be expressed in monetary terms and temporally adjusted on a common basis at the same present time.

The cost-benefit approach can be used to estimate some aspects related to the ULQ such as the social cost of commutation and pollution, etc.

For example, in Ningbo City, the commutation time in 2001 was at average 120 min, a 50 %



Urban Quality of Life Estimates, Fig. 4 Turin attractions before (left) and after (right) urban transformations (Source: D'Acci, 2009a)

increase from 1990; similar results concern the cities of Guangzhou and Yangzhou with their average commuting time in 2001 of 90 and 150 min (Wen & Chen, 2008). The value due to time lost could be calculated as the total annual amount of time vanished in commuting multiplied by the average income per hour.

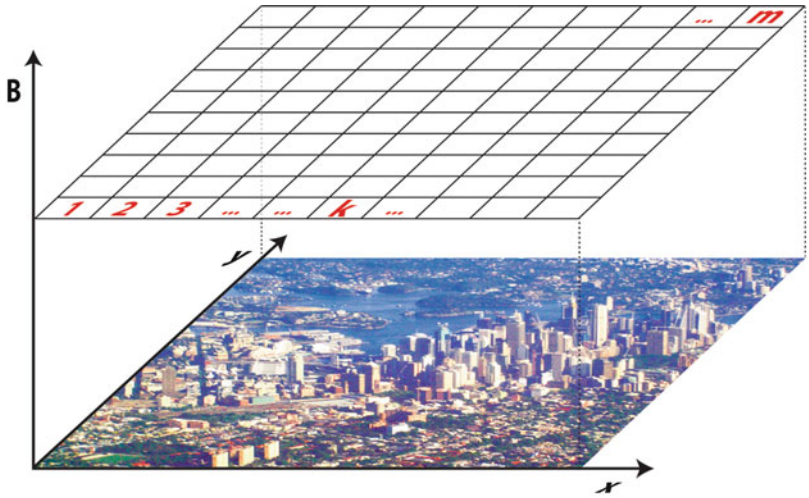
Part of the cost of urban pollution can be evaluated by estimating the costs of health problems caused by pollution, investigating the relationship between pollution and the death rate or morbidity of a given disease, and multiplying the exposed population with the estimated morbidity to derive the cases of illness caused by certain pollution. To estimate the monetary losses of those sickness cases, it is possible to use the human-capital approach. It transforms the pathological losses, such as sick leave and days off due to the illness, into monetary cost. In addition the medical treatment, expenditures are considered too.

Estimating the Urban Life Quality Sprawl

Important urban transformations can strongly alter the image of a city concerning aesthetical, functional, social, and economic aspects. When they involve public goods such as nice parks, pedestrian areas, cultural amenities, agreeable streets, and pleasant shopping areas, the ULQ is expected to increase. At the same time, a more uniform distribution on the city planimetry of these public goods is expected to improve the ULQ to a larger number of citizens (D'Acci 2010a).

To quantify the spatial distribution of the amenities improving the ULQ, and then to estimate the spatial distribution of the social benefit given by these amenities, it is possible to use several methods.

Figures 4 and 5 show an example of measurement of ULQ sprawl for the Turin City (D'Acci, 2009a).



Urban Quality of Life Estimates, Fig. 5 The urban matrix

Figure 5 shows the associated estimation of the social benefit distribution given by the urban amenities implemented by the following simplified equation (Isobenefit Lines) (D'Acci 2013):

$$B_{i,k} = A_i \cdot E/d_{i-k} + E \tag{4}$$

$$B_k = \sum_{i=1}^{n} A_i \cdot E/d_{i-k} + E \tag{5}$$

where $B_{i,k}$ is the benefit in a k urban point, generated by an i amenity-beauty having an A_i level of Punctual Benefit and $d_{i\text{-}k}$ is their distance. The Punctual Benefit, A, concerns the benefit obtained when the citizen is using the public good (i.e., the "pleasantness" benefit felt by the citizen when he/she is in a park, pedestrian street). A can also be contemplated and evaluated by thinking and comparing the public places in the city where the *majority* of citizens (principle of ordinariness) decide to go for a walk and to spend their free time or can be deduced by one of the methodologies to quantify the influences of urban characteristics (parks, pedestrian areas, etc.) on the quality of life (i.e., HPM, willingness-to-pay).

B_k is the benefit of the k urban point (that means of the citizens living in k), given by all the amenities-beauties in the city. B depends on the distance, level, number, and reciprocal position of the amenities-beauties. It is associated to the citizens' facility of using directly the city's attractions, which is the difference between the citizens' cost for reaching the attraction and the benefit given by using it. E is a coefficient called efficacy of moving consisting of three moving variables: cost, speed, and comfort.

$$E = \varepsilon \cdot E_{i-k}; \quad E_{i-k} \propto \alpha P_{i-k} + \beta C_{i-k} + \gamma W_{i-k} + \delta Bi_{i-k} \tag{6}$$

where E_{i-k} reflects the *objective status* of possibilities that the city offers for moving from i to k, and it says *how* the citizens move throughout the city (if mostly by car, C, public transport, P, bike, Bi, or walking, W, and ε says *how much* they are willing to move around (a kind of subjective comfort of moving). In a certain way, ε "weighs" the "variety" advantage to enjoy numerous amenities (*Variety Value*), rather than the advantage of the proximity of one amenity (*Proximity Value*) (D'Acci, 2012b). If ε is major than 1, the model emphasizes the Variety Value, and if minus, the Proximity Value.

The *objective status* of movement offered by the city is described by the variables P, C, W, and Bi.

The parameters $\alpha, \beta, \gamma, \delta$ describe how the citizen moves, what method he/she uses, and in

which relative percentage (each of them is equal to major than zero, and their sum must be 1). Under a certain distance around A_i, γ and δ just count; after a certain distance, they will count less and less.

These variables are quantified for each urban point k of the urban matrix, in relation with each amenity i, and are all translated into the same scale.

P_{i-k} values the Public Transport system between i and k, and it is a weighted sum taking into account factors such as number of lines and their frequency, speed, traffic, cost, and objective comfort (number of seating areas, noise, design, etc.). C_{i-k} values the Car Transport system, and it is a weighted sum of variables such as traffic and costs (oil, parking, car taxes, insurance, etc.). W_{i-k} quantifies the facility for pedestrians and includes the objective condition and availability of sidewalks and the quality of the streets from the pedestrian point of view (noise, aesthetics, pollution, physical obstacles, etc.). Bi_{i-k} quantifies the same but from the point of view of biking.

Each of these under-variables is weighted by other parameters.

Therefore, E transforms the Euclidean distance (d) into a *Psycho-economical Distance*. When we formulate A and E on the basis of the aggregate statistics and habits and by observing the majority of the citizens rather than each of them, we talk of *Isobenefit Lines*.

When A and the full set of parameters of E ($\varepsilon, \alpha, \beta, \gamma, \delta$ and the under-parameters of each under-variable forming the variables P, C, W, and Bi) are formulated on the basis of *personal* habits and preferences, we pass from *Isobenefit Lines* to *Personal Isobenefit Lines* (D'Acci, 2013).

For example, for a person the most important things could be libraries, parks, and pedestrian areas; for another, shopping malls and parking; for another, hospitals and public transport, etc. In the same way, a person could give more value to aesthetics and silence; another, more to speed and time; another, more to the costs, etc. (D'Acci, 2012a).

To quantify the sprawl (planimetric distribution) of the benefit given by the urban amenities-beauties, we can use a coefficient called distribution-benefit coefficient (DBC) – it is the standard deviation of the result given by Eq. 5, applied for every urban point, and divided by its medium value:

$$DBC = \sigma M/M' = \sqrt{\frac{\sum_{k=1}^{m} (B_k - B')^2}{m}}/B' \qquad (7)$$

in which M is the matrix of m elements (the number of cells we have divided the city into), where the generic k element has a value B_k and B′ is the medium value of M:

$$M' = B' = \frac{1}{m} \sum_{k=1}^{m} B_k \qquad (8)$$

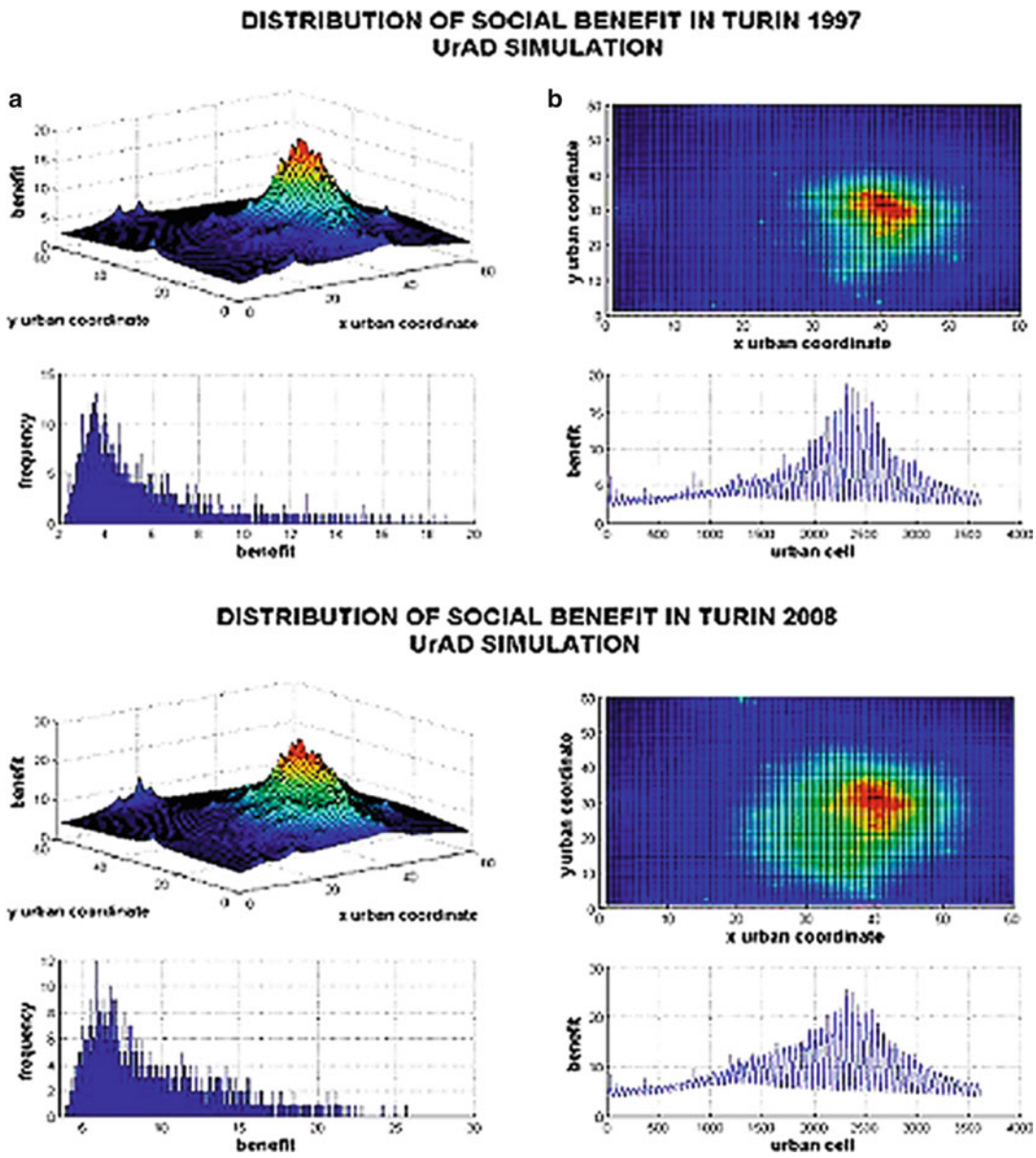
In the example of Turin City, we can see how the urban transformations have improved the number of amenities-beauties in the peripheral areas and ameliorated the city center (Figs. 6 and 7).

DBC, the coefficient of variation of M (ratio of the standard deviation to the mean), measures the uniformity of the distribution of the social benefit in the city (D 'Acci, 2012a, b): the lower the DBC, the more uniform the distribution. For Turin this coefficient decreased by 17 % during the last decade of urban transformations.

The coefficient of variation of the real estate value in Turin decreased by almost the same value (15 %) during the same period of time considered and in respect to the average national level. This confirms the assumption that part of the real estate value is a monetary mirror of the ULQ that a citizen is expected to receive by buying and living in a certain urban point.

Subjective Well-Being Approaches

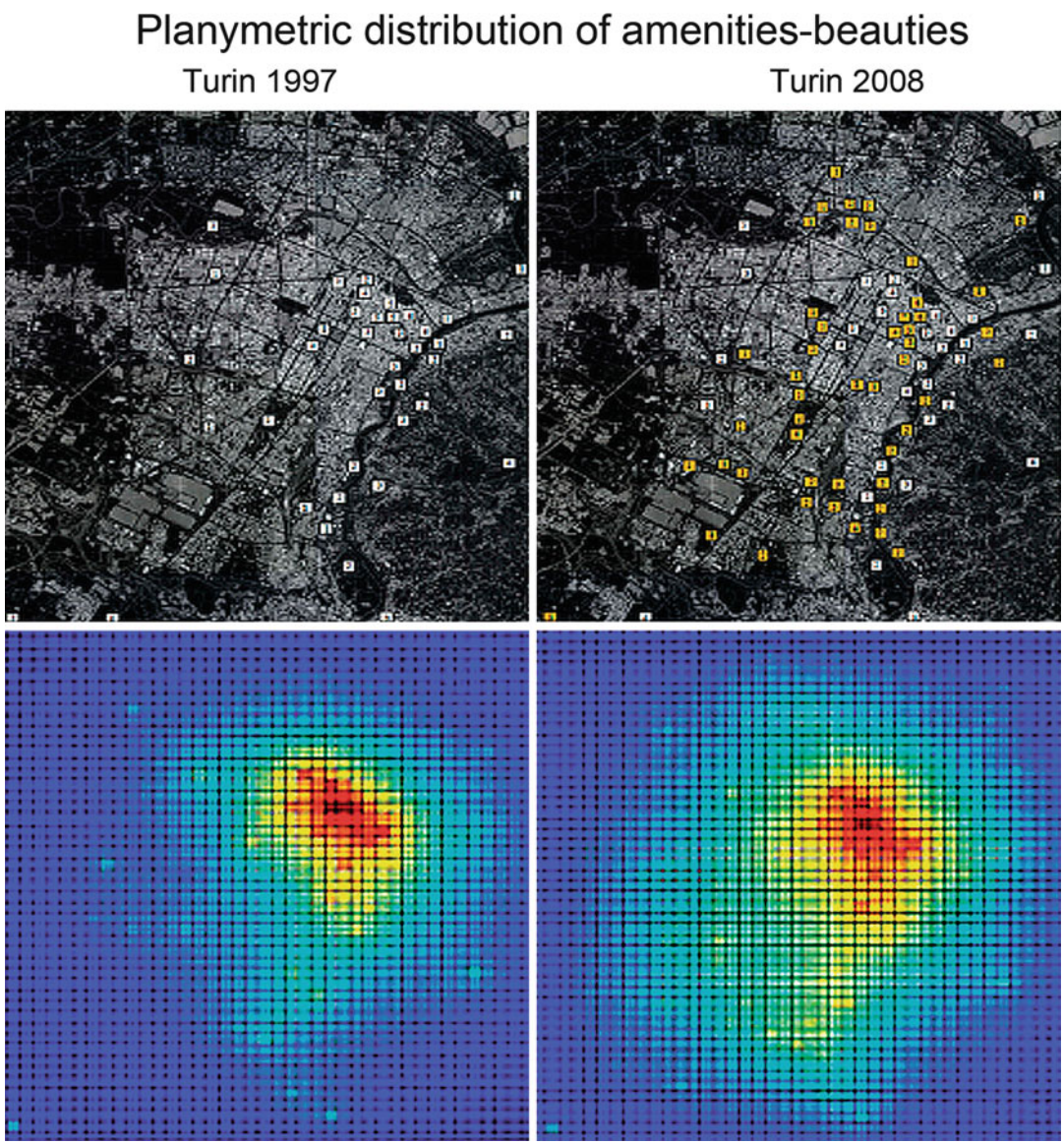
In observance with the economics literature, subjective well-being covers measures of both happiness and life satisfaction. As an example of this kind of analysis applied to estimate happiness in the city, we refer to a recent investigation



Urban Quality of Life Estimates, Fig. 6 Distribution of social benefit in Turin 1997 and 1998 (Isobenefit Lines simulation) (Source: D'Acci, 2009a)

(Easterlin, Angelescu, & Zweig, 2011), involving a survey in which respondents are asked to quantify their feelings about their life on a scale from 0 to 10 (life satisfaction, LS). A series of regressions deduced the weights of factors such as living in an urban or rural environment, income, education, and occupational structure (independent variables) on the life satisfaction (dependent variable). The excess of urban over rural happiness tends to vanish and even reverse, as occupations, incomes, and education in urban and rural areas converge.

If ULS and RLS are the same, the coordinates fall into a point on the bisector. When ULS is higher than RLS, the point is above the bisector, and vice versa. Figure 8 shows that the points are

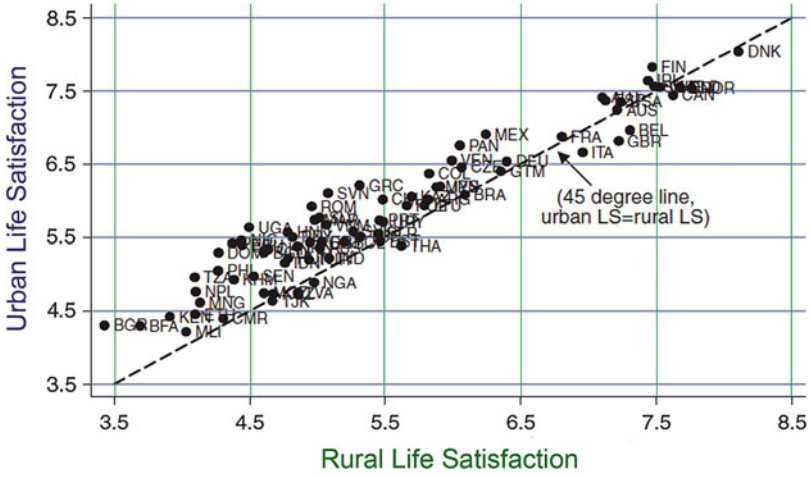


Urban Quality of Life Estimates, Fig. 7 Planimetric distribution of amenities-beauties (Source: DAcci, 2009a)

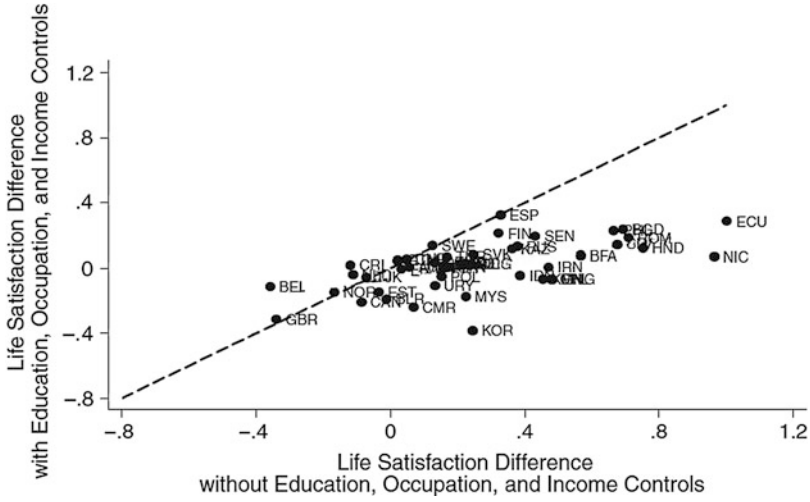
mostly above the bisector; that means that in most of the countries, urban inhabitants expressed feeling more satisfied than rural inhabitants.

Figure 9 shows the ULS minus RLS when the factors income, education, and occupational structure are inserted into the analysis (we can call it {ULS-RLS}* and represents the ordinate axis) and when they are not inserted ({ULS-RLS}, abscissa).

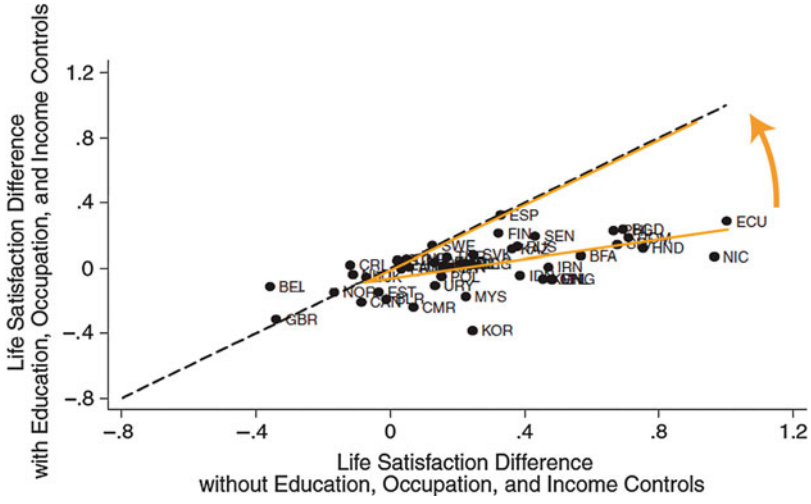
We cannot put the calm picturesque of countryside life into the city, but, by planning good cities (allowing citizens a greater ULQ with parks, pedestrian areas, public transport, open spaces, air quality, urban and architectural beauty, etc.), we could increase their attractiveness, not just because in the city one can have a higher income or education but because one lives in a *beautiful* city (D'Acci 2012). Graphically it means to shift the line of the linear interpolation of the points in Fig. 9 toward the bisector (Fig. 10).



Urban Quality of Life Estimates, Fig. 8 Rural vs Urban life satisfaction (From Easterlin, Angelescu, & Zweig, 2011, Fig. 3)



Urban Quality of Life Estimates, Fig. 9 Rural vs Urban life satisfaction (From Easterlin, Angelescu, & Zweig 2011, Fig. 7)



Urban Quality of Life Estimates, Fig. 10 Rural vs Urban life satisfaction (Modification from Easterlin, Angelescu, & Zweig 2011, Fig. 7)

Discussion

Everybody knows what makes city life happier (parks, gardens, pedestrian areas, buildings and street beauty, cultural stimulation, good public transportation systems, etc.) and unhappier (crime, congestion, pollution, anonymity, alienation, etc.). Sometimes it is useful to estimate in monetary terms this amount of happiness/unhappiness, and to assess its determinants, in order to give a concrete value to use inside policies and investment decisions using public funds.

One needs to be very careful during every step of the chosen methodology. For example, some problems, well known from statistical theory, can significantly compromise the results. Omitted characteristics, correlations among them (and, in this case, wrong decisions about which one to leave, to merge, etc.), could dramatically change the results. Therefore, independently from the method used to transform a qualitative characteristic into a number, to assess the monetary value of nonmarket/nonproductive functions, or to – numerically – judge a multi-attribute concept such as the estimation of ULQ, all the modelling process should constantly be driven by well-grounded human evaluation based on holistic judgment, economic, social and psychological, as well as historical and cultural.

Cross-References

- ▶ Aesthetic Value
- ▶ Architecture and Meaning
- ▶ Distributive Justice
- ▶ Environment and Health
- ▶ Good Life, Theories of
- ▶ Happiness Measures
- ▶ Healthy Cities
- ▶ Life Satisfaction, Concept of
- ▶ Meta-Data-Analysis
- ▶ Perceived Quality of Life
- ▶ Policy Analysis
- ▶ Policy Evaluation
- ▶ Public Good(s)
- ▶ Quality of Life Questionnaire
- ▶ Questionnaire Design
- ▶ Subjective Indicators
- ▶ Sustainable Urban Design
- ▶ Urban Ecology
- ▶ Urban Sustainability Indicators
- ▶ Well-being and Progress Measurement

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Urban Renewal

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Definition

Urban renewal refers to a set of plans and activities to upgrade neighborhoods and suburbs that are in state of distress or decay. Urban renewal programs address the physical aspects of urban decay. Urban problems such as deteriorating housing, poor physical infrastructure (including water and sanitation services), and poor community services such as sports and recreational amenities are addressed through such programs.

Description

Urban renewal can be distinguished from urban regeneration. The latter is a wider ranging, more holistic policy intervention that incorporates physical, social, and environmental regeneration (Lang, 2005). Urban renewal was considered as an alternative to the unpopular policy of "slum clearance" involving demolishing decaying housing and slum areas and relocating the people living there to other parts of a city. Slum clearance programs had their origins in the United Kingdom and the United States of America, beginning in the 1930s and 1940s, respectively (Carmon, 1999). The consequence of slum clearance policies was the reproduction of slums in other areas of the city as people were displaced from one area to another. Urban renewal programs have also undergone policy shifts from pure top-down initiated programs characterized by physical upgrading and social exclusion, urban renewal programs that incorporate community participation where there are minimal changes to the population-demographic in the area but also little change to the perceived status of the area (by those living outside of it) following implementation of the program. A third-generation approach focuses on public-private partnerships and the gentrification of selected districts in cities, often occurring with some displacement of people. Carmon (1999) notes that these urban renewal approaches all have weaknesses with lessons to be learned. Lessons include the need to adopt a more nuanced approach to urban renewal that takes into account unique differences that exist in ▶ neighborhoods and which requires different kinds of interventions, balancing people-oriented development with physical-environmental development, adopting strategies to prevent income segregation of residents, working on goals of social equity and development, partnerships between the private and public sectors, and the preservation of old social and physical systems where appropriate.

▶ Quality of life researchers have been able to measure the impacts of urban renewal and urban development on residents' ▶ well-being. Various theoretical models have been developed to measure the local impact of urban renewal and development programs, for example, Shye (1989) and Sirgy and Rahtz (2006). In the case of Sirgy and Rahtz (2006), an empirically tested model drawing initially from the work of Andrews and Withey's (1976) bottom-up-spillover theory can be applied to measure the impact of urban renewal. Their model incorporates a range of local-level components to explain general ▶ satisfaction with life, interalia: satisfaction with government; nonprofit and business services; satisfaction with community aspects in general,

including ▶ environmental indicators such as the quality of the natural environment; social relations in the community; and satisfaction with neighborhood and the housing situation. Evaluations of the impact of environmental quality, resulting from urban renewal programs while such programs are taking place and anticipated improvements in ▶ environmental quality after such programs have been completed, have also received attention from quality of life researchers (see Cheung & Leung, 2007). These researchers found that to sustain subjective quality of life of residents who are exposed to urban renewal requires ensuring environmental quality during and after urban renewal has taken place. Urban planners have also applied quality of life and ▶ social indicators to measure the impact of urban renewal, such as is the case with Australia's New Living Program (see Walker et al., 2003).

In sub-Saharan Africa, the urban population is concentrated in informal/shanty areas where 61.7 % of the population live with inadequate housing and services (UN-Habitat, 2010). Urban renewal and regeneration policies in similar developing and less developed regions have policy significance for quality of life and well-being. In South Africa, for example, the term urban renewal has a different interpretation in policy discourse and refers to more holistic interventions involving ▶ poverty alleviation, crime reduction, and the development of physical infrastructure (Rauch, 2002). Researchers have begun to measure the impact of urban renewal on the quality of life of residents in developing country contexts (see, e.g., Richards, O'Leary, & Mutsonziwa, 2007) and to also measure quality of life differences between informal/shanty and formal housing areas (see, e.g., Moller, 2001). In South Africa, the use of quality of life surveys to measure changes over time, as a result of urban renewal and other development programs, to large metropolitan/city areas is well advanced (see, e.g., Richards, 2006; O'Leary, 2007). Quality of life surveys are used as a tool for ▶ sustainable development by allowing policy makers to most effectively match the needs of the people with limited state resources available (O'Leary, 2007).

Cross-References

- ▶ Community
- ▶ Environmental Indicators
- ▶ Environmental Quality
- ▶ Neighborhoods
- ▶ Poverty
- ▶ Quality of Life
- ▶ Social Indicators
- ▶ Sustainable Development

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Urban Renovation

► Gentrification

Urban Sprawl

► Suburbanization

Urban Sustainability Indicators

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Synonyms

City and regional indicators; Community indicators; Measures of progress

Definition

Urban sustainability indicators are ways to measure the conditions and status of an urban area with a variety of factors. They differ from most types of indicators because they are connected to each other, with aspects of economic, environmental, and equity dimensions impacting and connecting to one another. However, as with other types of indicators, urban sustainability indicators show strengths and weaknesses inherent in the system via the indicators. If areas need improvement, or are static, or progressing, the indicators will provide information to recognize issues or concerns.

Description

Community indicators are bits of information that, when combined, generate a picture of what is happening in a local system (Phillips, 2003). They provide insight into the overall direction of a community: whether it is improving, declining, or staying static or a combination of all. Combining indicators together provides a measuring system to monitor information about past trends, current realities, and future direction in order to aid decision making. Many communities, regions, and countries throughout the world have identified, designed, and adopted indicators to help them gauge conditions in their areas. In practice, indicators point out processes and phenomena, their changes and trends, and make comparison of achieved values, benchmarks, standards, and more – in its simplest definition, a good indicator signals the existence of a problem and points out the necessity to take action in order to eliminate or alleviate the problem (Cravic, 2011, p. 223).

Indicators in the urban context are used widely and promoted by various groups via data provision and research. The Organisation for Economic Co-operation and Development, the World Bank, and the United Nations all have developed and are using urban indicators. One of the most widespread efforts is headed by the United Nations Habitat, beginning with collecting urban indicators related to housing in 1991. Later expanding to include a larger range of urban concerns, the Global Urban Indicators Database is updated annually to provide information for addressing key Habitat Agenda issues. These indicators are tied to the Millennium Development Goals and can be accessed via UrbanInfo, an online software tool providing information by country and major city. With the most recent version in 2012, the data are available in all four UN languages – French, Arabic, Spanish, and English. The indicator categories tracked are listed in Table 1.

The framework within which urban sustainability indicators have developed is that of sustainability. Beginning with Agenda 21 in the early 1990s, governments began introducing sustainability indicators as a key component to support sustainability decision making, helping monitor progress towards goals and policies reflecting what is most important to people (Munier, 2011). As Rametsteiner, Pulzl, Alkan-Olsson, and Frederiksen (2011) explains, the role

Urban Sustainability Indicators, Table 1 UN Habitat's Global Urban Indicators

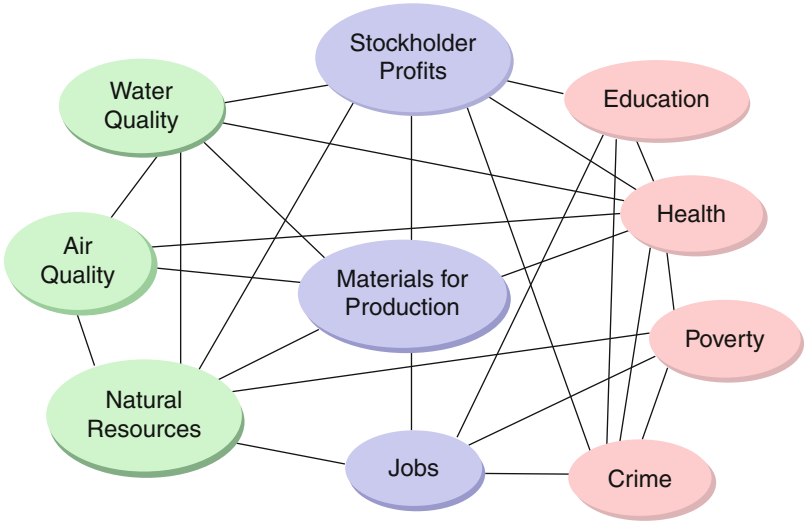
Habitat Agenda Indicators
1. Shelter
Goal 1: Promote the right to adequate housing
Indicator 1.1: durable structures
Indicator 1.2: overcrowding
Indicator 1.3: housing price and rent-to-income
Indicator 1.42: right to adequate housing
Goal 2: Provide security of tenure
Indicator 1.5: secure tenure
Indicator 1.6: authorized housing
Indicator 1.7: evictions
Goal 3: Provide equal access to credit
Indicator 1.82: housing finance
Goal 4: Provide equal access to land
Indicator 1.9: land price-to-income
Goal 5: Promote access to basic services
Indicator 1.10: access to safe water
Indicator 1.11: access to improved sanitation
Indicator 1.12: connection to services
2. Social development and eradication of poverty
Goal 6: Provide equal opportunities for a safe and healthy life
Indicator 2.1: under-five mortality
Indicator 2.2: homicides
Indicator 2.4: HIV prevalence
Indicator 2.32: urban violence
Goal 7: Promote social integration and support disadvantaged groups
Indicator 2.5: poor households
Goal 8: Promote gender equality in human settlements development
Indicator 2.6: literacy rates
Indicator 2.7: school enrolment
Indicator 2.8: women councilors
Indicator 2.92: gender inclusion
3. Environmental Management
Goal 9: Promote geographically-balanced settlement structures
Indicator 3.1: urban population growth
Indicator 3.2: planned settlements
Goal 10: Manage supply and demand for water in an effective manner
Indicator 3.3: price of water
Indicator 3.4: water consumption
Goal 11: Reduce urban pollution
Indicator 3.5: wastewater treated
Indicator 3.6: solid waste disposal
Indicator 3.7: regular solid waste collection
Goal 12: Prevent disasters and rebuild settlements
Indicator 3.8: houses in hazardous locations
Indicator 3.92: disaster prevention and mitigation instruments
Goal 13: Promote effective and environmentally sound transportation systems
Indicator 3.10: travel time
Indicator 3.11: transport modes
Goal 14: Support mechanisms to prepare and implement local environmental plans and local Agenda 21 initiatives
Indicator 3.122: local environmental plans
4. Economic Development
Goal 15: Strengthen small and micro-enterprises, particularly those developed by women
Indicator 4.1: informal employment
Goal 16: Encourage public-private sector partnership and stimulate productive employment opportunities
Indicator 4.2: city product
Indicator 4.3: unemployment
5. Governance
Goal 17: Promote decentralisation and strengthen local authorities
Indicator 5.1: local government revenue
Indicator 5.22: decentralization
Goal 18: Encourage and support participation and civic engagement
Indicator 5.3: voters participation
Indicator 5.4: civic associations
Indicator 5.52: citizens participation
Goal 19: Ensure transparent, accountable and efficient governance of towns, cities and metropolitan areas
Indicator 5.62: transparency and accountability

(*continued*)

Urban Sustainability Indicators, Table 1 (continued)

Source: www.unhabitat.org, "Global Urban Indicators – Selected statistics, November 2009

of sustainable indicators goes beyond providing relevant information, "they create an understanding and insight about how human and/or environmental systems operate; they suggest the nature and intensity of linkages among different components of the studies systems, and they offer a better understanding of how human actions affect different dimensions of sustainability (economy, environment, social issues)" (62). Given the intense pressures on habitat due to rapid urbanization worldwide, urban sustainability indicators are particularly relevant and can be adapted to reflect diversity of different needs and goals across cities and regions (Shen, Ochoa, Shah, & Zhang, 2011).



Urban Sustainability Indicators, Fig. 1 An example of the interconnectedness of indicators of sustainability (Source: www.sustainablemeasures.com)

The inclusion of social dimensions is vitally important, as seen in many of the indicators listed in the UN-Habitat database. Further, Manzi, Lucas, Jones, and Allen (2010) point out that issues of social sustainability have been largely neglected in mainstream sustainability debates until recently. As awareness of the complexity of the nature of sustainable development continues to expand, the environment is not seen as a discrete entity but rather as an interdependent whole or related system (p. 4). This recognition that it is a system rather than separate components helps identify, develop, and use indicators in a more integrated manner. For example, Sustainable Measures (2012) provides the following graphic as an example of some of these interrelationships. Using the natural resource base as the example, it is seen to provide "the materials for production on which jobs and stockholder profits depend. Jobs affect the poverty rate and the poverty rate is related to crime. Air quality, water quality and materials used for production have an effect on health. . .health problems, whether due to general air quality problems or exposure to toxic materials, have an effect on worker productivity and contribute to the rising costs of health insurance" (p. 2) (Fig. 1).

Urban sustainability indicators represent a way to bring together information to support decision making in a sustainable framework. Numerous examples abound of applications of these type indicators to cities throughout the world. While there are many different contexts to consider, as well as use to support varying goals, desires, and policy outcomes, lessons can be learned by examining others' efforts. A study by Shen et al. (2011) provides a comparison of urban sustainability indicators across nine cities in both the developing and developed world – Barcelona, Chandigarh, Hong Kong, Iskandar, Melbourne, Mexico City, Pune, Singapore, and Taipei. Learning at the local level is of high importance for it is often at this level that the most direct intervention can be taken to address issues of sustainability.

Cross-References

- ▶ Community Indicators
- ▶ Quality of Community Life Measures
- ▶ Sustainable Development

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Urban Transformation

► Gentrification
► South African Urban Growth (1911–2000)

Urbanization

► Suburbanization

Urbanized Areas

► Urban Areas

Urologic Diseases

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Definition

Urologic diseases refer to illnesses of the male and female urinary tract, encompassing kidneys, ureters, urinary bladder, and urethra, as well as the male reproductive organs, including testes, penis, and prostate. Urologic diseases can be congenital or acquired and cancerous or benign, and they may predominantly concern men or women or both (Litwin & Saigal, 2007). The surgical specialty concerned with the medical and surgical treatment of most urogenital diseases is urology. Although diseases of the kidneys such as end-stage renal disease are generally classified in one overarching category with urologic diseases, their medical treatment falls within the domain of another specialty that is nephrology.

Description

Urologic diseases can profoundly impact patients' ► health-related quality of life. On the basis of data assembled by the Urologic Diseases in America group (Litwin & Saigal, 2007), five frequently diagnosed urologic diseases in adulthood were selected and are presented in order of organ site, including the prostate and urinary tract. As renal diseases comprise a relatively large category in urologic diseases and as their symptoms and associated bearings on patients' quality of life constitute an extensive additional field of research, they are reviewed elsewhere. Furthermore, pediatric urologic diseases and disorders of the male reproductive system, specifically male ► sexual dysfunction or male infertility, are not covered here. However, they too affect patients' quality of life, notably within relationship domains (e.g., Gralla et al., 2008).

Common Diseases of the Prostate

Benign prostate hyperplasia (BPH) and prostate cancer (PCa) rank among the most common urologic diseases in men. Both are age-related diseases and their symptoms or related treatment side effects, including urinary tract symptoms and sexual dysfunctions, may cause substantial disruption of patients' physical and emotional ► quality of life and social participation (Penson & Chan, 2007; Wei, Calhoun, & Jacobsen, 2007).

Benign Prostate Hyperplasia (BPH)

Benign prostate hyperplasia (BPH) is a chronic condition and ranges among the most frequent benign neoplasms in men. It refers to an enlargement of the prostate due to excessive proliferation of prostate cells and is associated with chronological age (Wei et al., 2007). Its progressive symptoms manifest in the lower urinary tract and include chronically limited urinary flow caused by the enlarged prostate crushing the urethra. Men suffering from BPH experience incomplete emptying of the bladder, enhanced frequency and urge to urinate, also during nighttime, trouble starting urination, weak urinary stream, or even complete urinary retention (Wei et al., 2007.) Higher frequencies of urinary tract infections and erectile dysfunctions are also associated with BPH (Griebling, 2007; Wei et al., 2007). Using data from population-based and multinational datasets, Robertson and colleagues (2007) reported that lower urinary tract symptoms associated with BPH are significantly and uniquely correlated with men's quality of life. In that, men's physical component summary showed higher unique associations with urinary tract symptoms than with comorbid diseases including cancer, diabetes, or high blood pressure. Moreover, researchers found BPH symptoms uniquely related with lower mental component summary scores of a generic quality of life measure (Robertson et al., 2007). Further cuts in patients' quality of life may encompass restricted mobility and limited participation in social activities because of men's need to secure access to restrooms to relieve an often imperative urge to urinate.

Wei and colleagues (2007) list available treatments for BPH including transurethral resection of the prostate (TURP), pharmacological therapy (i.e., phytotherapeutics, alpha-blockers, 5-alpha reductase inhibitors), and minimally invasive surgical procedures (e.g., different kinds of laser therapies, transurethral needle ablation, transurethral microwave therapy).

Prostate Cancer (PCa)

In Western industrialized nations, prostate cancer ranges among the most frequent malignant diseases in men (Globocan, 2008). The risk for prostate cancer increases with chronological age. Although mortality due to prostate carcinoma (PCa) has been slightly reduced by improved diagnosis and treatment, the high prevalence of the disease especially in Western countries makes it a public-health priority. As improved diagnostic means effect relatively early detection of PCa in the majority of patients, men with localized diseases are largely asymptomatic. However, sequelae of treatments for PCa often impede patients' quality of life (Penson & Chan, 2007).

Localized Disease PCa

In patients with localized prostate carcinoma, radical prostatectomy, external beam radiotherapy, interstitial brachytherapy, and watchful waiting/active surveillance are frequently opted for treatments (Gomella, Johannes, & Trabuisi, 2009; Penson & Chan, 2007). Radical prostatectomy refers to the removal of the entire prostate between urethra and bladder, with bilateral resection of seminal vesicles, and transection of the spermatic ducts. Urethra and bladder are reconnected following removal of the prostate. External beam radiotherapy and interstitial brachytherapy are both radiation treatments. External beam radiotherapy applies radiation doses from external sources. In interstitial brachytherapy low-dose radioactive agents (i.e., seeds) are implanted in the prostate permanently to control tumor growth. Conservative forms of management of prostate cancer are watchful waiting or active surveillance where patients' tumors are closely monitored, but not actively treated. Patients enrolled in a watchful waiting program are treated only if tumor-associated symptoms occur. Within active surveillance, the tumor is also closely monitored and treatment will be initialized if progression or tumor growth is detected. These are treatment options for patients for whom tumor growth proceeds very slowly or the initial tumor state has rather low malignant potential (Penson & Chan, 2007). At this point, there is only little evidence from randomized controlled trials (RCT) concerning the benefits of each treatment form in terms of survival (Gomella et al., 2009).

Side effects of all active treatments for localized prostate carcinoma affect patients' quality of life. Most common side effects include urinary tract symptoms, sexual dysfunctions, or bowel symptoms (Gomella et al., 2009). The latter manifest as diarrhea and loose stools and are more common sequels of external beam radiotherapy (Korfage et al., 2005). Erectile dysfunctions and urinary tract disorders, most notably urinary incontinence but also urinary obstruction, occur in patients undergoing brachytherapy and external beam radiotherapy but are most expressed following radical prostatectomy (Gomella et al., 2009). Effects of urinary incontinence on quality of life are temporary for the majority of patients and are reviewed below. Erectile dysfunction, however, may persist several months or become chronic (Korfage et al., 2005). Aside from being associated with men's ▶ emotional well-being, severity of sexual dysfunctioning was also shown to be associated with patients' and partners' lower overall ▶ relationship satisfaction (Badr & Carmack Taylor, 2009). Whereas, with brachytherapy, loss in sexual functions is less pronounced than following radical prostatectomy or external beam radiation therapy, brachytherapy is often supplemented by external radiation therapy and/or adjuvant hormone therapy which add risk for loss of sexual functions (Penson & Chan, 2007). Watchful waiting, although lower on physical symptom side effects, can still cause ▶ distress for patients as the psychological burden of living with cancer, fearing accelerating progress of the disease, and having to adhere to close disease monitoring become part of patients lives (Gomella et al., 2009; Johansson et al., 2009).

Metastatic PCa

For patients whose cancer has spread to more distant parts of the body, hormone ablation therapy is provided (Penson & Chan, 2007). In hormone ablation therapy, either the production or the function of testosterone is blocked to slow development of the primary cancer and metastatic sites. Hormone ablation therapy has been shown to have adverse side effects on quality of life including among others enhanced depressive symptoms, ▶ fatigue, loss of sexual desire, erectile dysfunction, decline in ▶ cognitive function, or hot flashes (Gomella et al., 2009).

Patients whose tumors do not respond to hormone ablation therapy can opt for chemotherapy. Due to intense side effects caused by chemotherapeutical agents and effects of further disease progression, these patients' health-related quality of life is severely limited during times of active treatment (Gomella et al., 2009).

Common Urinary Tract Disorders and Diseases

Infections of the urinary tract, painful bladder syndrome, and urinary incontinence are common diseases of the urinary tract (Litwin & Saigal, 2007). In all of these conditions, women bear a much higher risk than men due to the anatomic differences (Clemens, Joyce, Wise, & Payne, 2007; Griebling, 2007; Nygaard, Thom, & Calhoun, 2007).

Urinary Tract Infections (UTI)

Urinary tract infections (UTI) are especially widespread; they involve different parts of the urinary tract (e.g., bladder, prostate), may be acute or chronic (i.e., recurrent), resulting from pathogens invading and/or persisting in the urinary tract and causing inflammation (Griebling, 2007). Longer-term effects on quality of life are associated with chronic/recurring urinary tract infections, which involve recurring episodes of inflammation with symptoms of fever, bloody or purulent urine, presence of bacteria in urine, pelvic and/or lower-back pain, painful urination, and increased urgency and increased frequency of urination. Symptoms were shown to be associated with lower quality of life in most domains: sleep/energy, role functions, social functions, and physical functions (Clayson, Wild, Doll, Keating, & Gondek, 2005). UTIs are treated with antimicrobial agents, including antibiotics and antimycotics, or with phytotherapeutical approaches.

Painful Bladder Syndrome (PBS)

Painful bladder syndrome (PBS) is a chronic condition. Its definitional criteria remain subject to debate as they closely resemble those of a more

rare condition referred to as interstitial cystitis (IC) which is why both conditions are frequently collapsed, i.e., IC/PBS. A main symptom of both diseases is pain in the pelvis that is associated with bladder filling (International Continence Society, 2002). Additionally, patients suffer from an increased frequency of urination during the day and at night with varying frequencies that range around 10–15 times per day (Clemens et al., 2007). Patients afflicted with PBS do not show signs of urinary tract infection, while according to the current definition, patients with IC show macroscopic signs of inflammation of the bladder wall, such as bleeding or edema, diagnosed by means of cystoscopy (International Continence Society, 2002). There is debate on whether IC/PBS symptoms are stable or recurring in episodes. Clemens and colleagues (2007) conclude that available evidence points to a rather stable course.

Resembling findings for chronic urinary tract infections, IC/PBS-associated disruptions in quality of life primarily concern pain and limitations of daily activity. Clemens and colleagues (2007) especially point out limitations in role functions with regard to family and work life as patients need to secure access to bathrooms to counteract bladder pain and experience sleep disruptions from frequent urination. Using representative data from the Boston area, Link et al. (2008) established positive associations of IC/PBS symptoms with depressive symptoms and economical difficulties as well as negative associations with ► physical activity among others. Using the same data, Clemens et al. (2008) found social activities (e.g., movies, travel) as well as fluid intake and sleep disrupted in participants reporting PBS symptoms. Controlling for overall quality of life and depressive symptoms, Bogart, Suttorp, Elliot, Clemens, and Berry (2011) reported higher IC/PBS-specific sexual dysfunctions (e.g., bladder pain during sexual activity, urge to urinate during sexual activity) in partnered women with IC/PBS symptoms participating in a probability sample survey of US households.

Treatment options for IC/PBS are manifold, including health-behavior interventions (e.g., diet changes, bladder training to increase bladder capacity), oral medication or intravesical therapy where medication is directly delivered into the bladder (e.g., analgetics, antidepressants, agents to improve protective layers of the bladder, or antihistamines), and more rarely applied surgical therapy applying implanted nerve stimulation or even the removal of the bladder (Clemens et al., 2007).

Urinary Incontinence

Urinary incontinence, or the involuntary leaking of urine (Abrams et al., 2002), is an age-dependent chronic symptom or disease which is more common in women than in men (Nygaard et al., 2007). While in women urinary incontinence is associated with age, pregnancy, and childbirth, in men it is often related to diseases of the prostate or their treatment (Stothers, Thom, & Calhoun, 2007). Common types are stress incontinence and the overactive bladder (OAB), formerly known as urge incontinence. Whereas stress incontinence refers to involuntary leakage of urine upon physical exertion, sneezing, or coughing, OAB describes episodes of incontinence preceded by increased urge to void (Stothers et al., 2007). Oftentimes symptoms of stress incontinence and OAB are mixed (Nygaard et al., 2007).

Urinary incontinence seems to affect all domains of patients' quality of life: emotional well-being, activities of daily living, and social functioning (Bartoli, Aguzzi, & Tarricone, 2010). Patients depend on using sanitary pads, sometimes limit fluid intake, fear leakage in public places, frequently change clothes, protect furniture with covers, make toilet plans, or restrict daily activities to environments that provide possibilities for a change of pads and/or clothes. Sexual activity with the partner may decrease because of fear of leakage or odors. Financial hardships may arise due to costs of absorbent products (Nygaard et al., 2007; Stothers et al., 2007).

Discussion

Many urologic diseases, especially those concerning the urinary tract or sexual functions, are likely underdiagnosed and undertreated.

Many patients shy away from disclosing symptoms and associated functional limitations, because they are considered shame ridden, taboos, indicators of poor hygiene, or the like. Assessment of epidemiological data on some urologic diseases is further complicated by lack of consensus concerning definition and diagnosis of diseases (e.g., painful bladder syndrome, urinary incontinence). These factors lead not only to often widely discrepant estimations of disease ▶ prevalence but also to as yet patchy knowledge about diseases' effects on patients' ▶ quality of life.

Cross-References

- ▶ Cognitive Function
- ▶ Diabetes Mellitus Type 1
- ▶ Emotional Well-Being
- ▶ Erectile Dysfunction (ED)
- ▶ Fatigue
- ▶ Health-Related Quality of Life
- ▶ Physical Activity
- ▶ Physical Functioning (PF)
- ▶ Prevalence
- ▶ Public Health
- ▶ Quality of Life
- ▶ Relationship Satisfaction
- ▶ Sexual Dysfunction(s)
- ▶ Sexual Functioning

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US National Assessment

► National Assessment of Educational Progress (NAEP)

US Peace Index (USPI)

► Global Peace Index

USA

► Utah Genuine Progress Indicator

Use

► Consumption

Use of Stimulants

► Cigarette Smoking and Drinking

User Research

► Community-Based Participatory Research

Usual Aging

► Elderly Activity and Engagement with Life

Utah Genuine Progress Indicator

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Synonyms

GPI, USA

Definition

The Utah Genuine Progress Indicator (GPI) is an application of the GPI methodology to the State of Utah, United States, in order to assess the change in quality of life over the 1990–2007 period and to provide a full-accounting framework for informed policymaking (Berik & Gaddis, 2011). The study incorporates 24 different social, economic, and environmental components.

Description

The GPI for Utah was estimated in order to determine whether the continuous economic growth in the state between 1990 and 2007 translated into genuine progress in terms of improvements in well-being. The Utah study comes on the heels of a province-level study for Alberta, Canada (Anielski et al., 2001), and a handful of state-level studies conducted in the USA. As of 2011, local GPI studies were completed for Minnesota (Minnesota Planning Environmental Quality Board, 2000), Vermont (Costanza et al., 2004), San Francisco Bay Area (Venetoulis & Cobb, 2004), the Northern Forest (Bagstad & Ceroni, 2007), Ohio (Bagstad & Shammin, 2012), and Maryland (State of Maryland, 2010).

The justification for use of GPI, rather than the commonly used gross domestic product (GDP), in assessing the changes in quality of life is the same in all GPI studies (Talberth, Cobb & Slattery, 2007). GDP, which is a tally of market transactions in a given year, includes as contributions to well-being those market transactions that reflect erosion of quality of life or are made to defend against them and does not include the nonmarket activities that contribute to well-being. The GPI seeks to correct these flaws by providing a full accounting of the contributors to and detractors from the welfare of society.

The concept of well-being that underlies the GPI emphasizes the need to replenish four forms of capital—built, natural, human, and social capital—in order to maintain the flow of services that support our well-being. The GPI seeks to attach a monetary value to each of these services, that is, services of infrastructure or consumer goods and services derived from built capital, clean air or water enabled by natural capital, productivity and ingenuity that is generated by an educated workforce, and social cohesion from social capital. The outcome of this effort is a multidimensional indicator that can be used both as a single monetary measure of well-being akin to the GDP and can be tracked in its various components in both monetary terms and in terms of the underlying nonmonetary magnitudes (e.g., the amount of PM2.5 pollution annually released into the air, the annual hours of household labor performed).

The Utah GPI is estimated by starting with a proxy for material welfare—personal consumption expenditures adjusted for income inequality—that provides the basis for an improved quality of life. The monetary value of services provided by public and household infrastructure and net capital investment are then added to the measure. To these economic components a number of environmental and social components are added. These include monetary estimates of activities that contribute to our well-being but are not priced in the marketplace, such as household and volunteer labor, and the benefits of Utah's ecosystems—forests, wetlands, deserts, and farmlands. Finally, monetary costs of those expenditures we incur to protect our standards of living and to measure the erosions of our natural and social capital are deducted. These include the costs of crime, auto accidents, underemployment, lost leisure time, and air, water, and noise pollution. A total of 24 adjustments were included to arrive at the GPI for the State of Utah and six of its most populous counties—Cache, Davis, Salt Lake, Utah, Weber, and Washington counties. The estimates were derived for 1990, 1995, 2000, 2003, 2005, and 2007.

The Main Findings

The main finding of the Utah GPI study is that, overall, Utahns experienced genuine progress in their well-being since 1990 but the achievement

was less than that indicated by the increase in Utah's GDP. The increase in GPI was driven by the value of the economic components of GPI, most notably personal consumption expenditures. Offsetting the contribution of economic components was the slight decline in environmental and social components of GPI. As a result, per capita GPI grew at an annual average of 3 % over the study period, half that indicated by the per capita GDP increase of 6.4 %. These results are consistent with earlier studies for Utah: the Ecological Footprint study of 2007 shows that between 1990 and 2003, Utah moved from an ecological surplus to an ecological deficit, indicating that Utahns now consume more than the state's lands produce (Utah Population and Environment Coalition, 2007). This change is consistent with both the steady increase in personal consumption that mainly uses up biological resources outside the state and the decline in environmental contributions to the well-being of Utahns documented by the Utah GPI study. In addition, according to the subjective well-being surveys conducted by Envision Utah, between 1997 and 2007, there was a slight decline in the quality of life reported by Utahns (Envision Utah, 2007). This decline in subjective well-being is consistent with the decline in social and environmental components of the GPI.

The results for individual components of the Utah GPI study provide some explanation for some of the overall trends observed in the aggregate indicator. The value of nonmarket activities is particularly interesting because these are services to society that are not captured in traditional economic metrics but are valued by society. For example, household labor and volunteer labor contributed $14 billion dollars (the equivalent of 16 % of the state GDP) in 2007. Another $25 billion dollars (30 % of the state GDP) of services were provided to Utahns in 2007 in the form of ecosystem services. On the cost side, some of the largest costs to Utahns result from driving. These costs include commuting, vehicle crashes, and air quality associated with cars and totaled nearly $8 billion in 2007. In 2007, lost leisure time (associated with overwork) and underemployment also cost Utahns $7.7 billion. The Utah GPI study also identified some trends of concern such as the state's dependence on nonrenewable natural resources, increased commute time and distance between 1990 and 2007, and a steady loss of prime farmland that could undermine Utah's ability to grow its own food in the future.

Methodological Innovations

In the Utah GPI study, a number of methodological innovations were implemented, most of which enabled by the availability of new data at the local level. Earlier local GPI studies had relied on assumptions based on dated national studies. In addition, a number of extensions were made, for example, to incorporate the uniqueness of Utah's ecology. Some highlights are the following.

Ecosystem Services Count as Benefit

Contrary to earlier GPI studies that estimated the cost of erosion of ecosystem services, in the Utah study the monetary value of ecosystem services is included as a benefit. The difficulty with deducting costs associated with the loss of ecosystem services is that the researcher must assume a baseline year or standard from which a loss can be estimated. By including ecosystem services as a benefit, the Utah study portrays more accurately the change in these services without making assumptions about their historic levels. Further, ecosystem services fit better on the positive side of the balance sheet as their services improve quality of life of human communities, but this contribution is not captured by standard economic metrics.

Desert Grassland and Scrubland Ecosystem Services Are Included

Because the Utah GPI study is the first state-level study to be conducted in the Intermountain West of the USA, it is the first to account for the value of desert services, which include dust control, pollination, and erosion control. Services from desert grasslands and scrublands were calculated using the same methodology applied to forests and wetlands.

Air Quality

Unlike other GPI studies, the Utah GPI study used a county-level damage cost assessment provided by Muller and Mendelsohn (2007) to estimate total damages associated with air emissions in Utah. Air emission data are provided by the Utah Division of Air Quality at the county level every 3 years. That said, damage estimates used in the GPI study are likely underestimates for most of the populated areas of Utah due to the difficulty in modeling temperature inversions that frequent the lowland areas of the state and exacerbate air quality problems.

Cropland (Value of Conservation)

The Utah GPI study relies on option values of conserving cropland. These values do not include the value of commodities produced on agricultural lands, but rather capture the value of knowing that this land is protected for future food production. The value of conserving farmlands was estimated using market value data from conservation easement transactions across Utah.

Unpaid Household Labor Estimates Are Based on State-Level Data

Time spent on unpaid housework and carework was estimated based on the American Time Use Survey (ATUS) data broken down by employment status and gender for Utah for the 2003–2007 period, and estimates for the 1990–2000 period were interpolated based on ATUS data and national estimates for the 1980s.

Underemployment and Lost Leisure Time Are Based on State-Level Data

Based on the US Current Population Survey, March Supplement, the Utah study estimated the annual size of the underemployed workforce (as the number of Utahns who were involuntarily employed less than full-time, including not at all) and the hours of unprovided labor by these workers relative to the hours provided by full-time workers in the state.

The number of leisure hours per fully employed worker in Utah was estimated based on the hours at paid work by full-time, full-year workers and unpaid household hours performed by employed workers in the state

Cross-References

- Air Quality
- Alberta's Genuine Progress Indicator
- Genuine Progress Index

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Utilitarianism

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Definition

Utilitarianism is a normative ethical theory according to which the rightness or wrongness of actions is determined by their good or bad consequences overall. Classical utilitarianism, developed in the late eighteenth and nineteenth centuries, had significant influence on the development of economics and on movements to improve social welfare. Its influence can also be seen in happiness studies.

Description

Utilitarianism is a normative ethical theory according to which the rightness or wrongness of actions is determined by their good or bad consequences overall. It is a teleological or consequentialist ethical theory focusing on aims or goals. By contrast, deontological theories focus on rules or duties, and virtue ethics focuses on persons developing and possessing traits or virtues that dispose one to act rightly. Some proponents of utilitarianism, such as Jeremy Bentham, believed it to be also a descriptive ethical theory, capturing how people do, as a matter of fact, behave.

Defining utilitarianism more fully requires clarification of what is meant by consequences. The various possibilities of how consequences can be understood and determined result in various types of utilitarianism. What sorts of consequences are important? The predominant answer is pleasure and pain, hedonistic utilitarianism. Some, notably early-twentieth-century British philosopher G.E. Moore (1903), claimed that some things which are not themselves states of consciousness add value to the universe, such as knowledge and beauty, a view called ideal utilitarianism. Focusing on the consequences of particular, individual acts in determining what is right and wrong is a type of theory called act utilitarianism. If, on the other hand, one focuses on rules to follow (since calculating for every particular act seems cumbersome and unrealistic and people tend to use "rules" to make decisions quickly), we have what is called rule utilitarianism.

Classical utilitarianism was developed in the late eighteenth and nineteenth centuries in England by a number of philosophers, and Jeremy Bentham and John Stuart Mill are the two best known and most influential (Stephen, [1900] 1997). They were not the first to hold such a theory. There were precursors as far back as the ancient Greeks (e.g., Epicurus). And the general ideas of utilitarianism were discussed by some other philosophers and theologians in England, Scotland, and France during Bentham and Mill's time.

The classical utilitarians who believed, as Bentham stated, that "it is the greatest happiness of the greatest number that is the measure of right and wrong" (Bentham, 1977) shared a number of basic assumptions: First, it is consequences that count in determining what is right and wrong. Second, everyone's good counts and counts equally. Third, the good of the greatest number or, one might say, the general welfare, should be sought as a goal. Fourth, there is an unbiased objective method to determine what is right: attention to determining what produces the best consequences.

Jeremy Bentham (1748–1832) is often regarded as the first to clearly articulate the utilitarian theory (Bentham, [1789] 1970). He believed in psychological hedonism, that pleasure and pain are what motivates us, and that we ought then to use the principle of utility as a measure of moral right and wrong. He saw the terms utility, pleasure, happiness, benefit, and good as rough synonyms. When it comes to determining what would be best, he focuses on pleasure as the concept to

use. He believed we could even employ a "felicific" or "hedonistic calculus" to determine the best alternatives. He takes pains to caution that pleasure has various features which must be considered, including intensity, duration, certainty or uncertainty, and fecundity (likeliness to promote more pleasure or pain). Using this method made ethics more "scientific" and less dependent on intuitions and cultural norms. The ways in which Bentham's theory is "scientific" and systematic made it very appealing to economists and others concerned with measuring and promoting welfare.

John Stuart Mill's (1806–1973) *Utilitarianism* ([1886] 1998) gives an account of the theory and responds to criticisms of the theory which were offered at the time, such as that it was a "pig philosophy," that human beings can do without happiness, and that happiness is not possible. He found Bentham's conception of pleasure too simple. (Bentham claimed "quantity of pleasure being equal [the game] of pushpin is as good a poetry.") Mill argued that there were *qualities* of pleasures that made a difference. Higher pleasures exemplified in the enjoyment of the arts and literature used more of a person's abilities and, all things being equal, were preferable to lower, as shown by people experienced with both preferring the higher.

With regard to the issue of whether the theory of utilitarianism could be proved, both Bentham and Mill noted that, in general, axioms or first principles were not subject to proof. Nevertheless, they seemed to think that the kind of reasoning and decision-making in utilitarianism was commonly used by people. Mill did provide a kind of proof in *Utilitarianism*, but many believe it to be logically flawed.

Classical utilitarianism faced other issues, such as whether, in calculating consequences, one should focus on total utility or average utility. The former was seen as resulting in counterexamples such as it justifying unrestrained population growth since with many more people there would be greater total happiness. Basing moral judgments on consequences is relatively straightforward when judging retrospectively, but decisions about what would be the best thing to do require predicting consequences, and how to do that is far less clear (Smart & Williams, 1973).

Utilitarianism had a clear influence on people concerned with social change and the promotion of welfare. Both Bentham and Mill were active in promoting social reform (Bentham championed prison reform; Mill advocated birth control and promoted the rights of women). And the promise of a "scientific" method for determining what counts as providing greater happiness, welfare, or utility made for the theory as being foundational for some schools of economics. Problems with the concept of pleasure and interpersonal comparisons made for complications in calculating utility. Bentham's straightforward method of calculation, which would seem to result in a clear ranking of alternatives, was seen to ignore problems of interpersonal comparisons. In economic theory, there was then a shift to ordinal comparisons in which one alternative is seen as better than another rather than cardinal ranking of all alternatives. And concerns about measurement of pleasure and how it could be done objectively, as well as concerns about interpersonal comparisons, resulted in a shift away from understanding utility in terms of states of consciousness such as pleasure to conceiving of utility in terms of choice and preference (Kenny & Kenny, 2006; Welch, 2010).

In current work on happiness, one sees an influence of utilitarianism and a revival of interest in the goal of promoting the happiness of all with the help of modern empirical studies. Happiness, understood as pleasure, desire satisfaction, enjoyment of life, or an attitude toward life such as satisfaction with or appreciation of life, measuring it, and determining of ways of increasing it are the focus of many studies (Brülde & Bykvist, 2010). Present researchers who exemplify this return to utilitarianism include Daniel Kahneman (Kahneman et al., 1997), Richard Layard (2005), and Ruut Veenhoven (2010).

Cross-References

- ▶ Consequentialism
- ▶ Greatest Happiness Principle
- ▶ Happiness

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Utility

▶ Well-Being, Philosophical Theories of

Utility Function of Income

▶ Individual Welfare Function

Utility Maximization

▶ Economic Rationality Assumption

Utility of Volunteering

▶ Volunteering, Theory-Based Account

UW-QOL

▶ University of Washington Quality of Life Questionnaire