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History of Social Indicators and Its Evolution

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7 Synonyms

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Development of social indicators; Social

indicators movement

Definition

A classical definition states that ▶ social indicators are statistical time series "...used to monitor the social system, helping to identify changes and to guide intervention to alter the course of ▶ social change" (Ferriss, 1988, p. 601).

Examples are ▶ unemployment rates, ▶ crime rates, estimates of ▶ life expectancy, ▶ health status indices such as the average number of "healthy" days (or days without activity limitations) in the past month for a specific population, ▶ school enrollment rates, average achievement scores on a standardized test, rates of ▶ voting in elections, measures of ▶ subjective well-being such as ▶ satisfaction with life as a whole, and ▶ composite well-being/quality-of-life indices such as the ▶ Human Development Index.

This entry describes the history of social indicators and its evolution. It draws upon and 28 updates Land (2000).

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Description

The Social Indicators Movement of the 1960s 31 and 1970s and Its Aftermath in the 1980s 32

The term "social indicators" was born and given 33 its initial meaning in an attempt undertaken in 34 the early 1960s by a scholarly panel appointed by 35 the American Academy of Arts and Sciences to 36 conduct a study for the United States National 37 Aeronautics and Space Administration the pur- 38 pose of which was to detect and anticipate the 39 nature and magnitude of the second-order conse- 40 quences of the space exploration program for the 41 American society (Land, 1983; Noll & Zapf, 42 1994). Frustrated by a lack of sufficient data to 43 detect such effects and the absence of 44 a systematic conceptual framework and method- 45 ology for analysis, some of those involved in the 46 Academy project attempted to develop a system 47 of social indicators - statistics, statistical series, 48 and other forms of evidence - with which to 49 detect and anticipate social change, as well as to 50 evaluate specific programs and determine their 51 impact. The results of this part of the Academy 52 project were published in an edited volume bear- 53 ing the name Social Indicators (Bauer, 1966).

The appearance of this volume was not an 55 isolated event. Several other influential publica- 56 tions commented on the lack of a system for 57

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charting social change and advocated that the US government establish a "> system of social accounts" that would facilitate a cost-benefit analysis of more than the market-related aspects of society already indexed by the national income and product accounts (see, e.g., National Commission on Technology, Automation and Economic Progress, 1966; Sheldon & Moore, 1968). The need for social indicators also was emphasized by the publication of a 101-page Toward a Social Report document on the last day of President Lyndon B. Johnson's administration in 1969. Conceived of as a prototypical counterpart to the annual economic reports of the president, each of its seven chapters addressed major issues in an important area of social concern (▶ health and illness; ▶ social mobility; the physical ▶ environment; ▶ income and ▶ poverty; public order and ▶ safety; learning, science, and ▶ art; and ▶ participation and ▶ alienation) and provided its readers with an assessment of prevalent conditions. In addition, the document firmly established the link of social indicators to the idea of systematic ▶ social reporting for the purpose public enlightenment.

Generally speaking, the sharp impulse of interest in social indicators in the 1960s grew out of the movement toward collection and organization of national social, economic, and demographic data that began in Western societies during the seventeenth and eighteenth centuries and accelerated in the twentieth century (Carley, 1981). The work of sociologist William F. Ogburn and his collaborators at the University of Chicago in the 1930s and 1940s on the theory and measurement of social change is more proximate (Land, 1975). As chairman of President Herbert Hoover's Research Committee on Social Trends, Ogburn supervised production of the two-volume Recent Social Trends (1933), a pathbreaking contribution to social reporting. Ogburn's ideas about the measurement of social change influenced several of his students – notably Albert D. Biderman, Otis Dudley Duncan, Albert J. Reiss, Jr., and Eleanor Bernert Sheldon - who played major roles in the

emergence and development of the field of social 105 indicators in the 1960s and 1970s.

At the end of the 1960s, the enthusiasm for 107 social indicators was sufficiently strong and 108 broad-based for Duncan (1969) to write of the 109 existence of a social indicators movement. In the 110 early 1970s, this led to numerous developments 111 in the United States, including the establishing in 112 1972, with National Science Foundation support, 113 of the Social Science Research Council Center 114 for Coordination of Research on Social Indicators 115 in Washington, D.C.; the publication of several 116 efforts to define and develop 117 major a methodology for the measurement of indicators 118 of subjective well-being (Andrews & Withey, 119 1976; Campbell & Converse, 1972; Campbell, 120 Converse, & Rodgers, 1976); the commencement 121 of a federal government series of comprehensive 122 social indicators books of charts, tables, and limited analyses (U.S. Department of Commerce, 124 1974, 1978, 1980); and the initiation of several 125 continuing data series based on periodic sample 126 surveys of the national population (such as 127 the annual National Opinion Research Center's 128 General Social Survey and the Bureau of 129 Justice Statistics' annual National Crime Victim- 130 ization Survey).

In addition, the concept of social indicators 132 spread internationally on large scale in the 133 1970s with the publication in 1974 of the first 134 volume of the journal ▶ Social Indicators 135 Research and the spread of social indicators/ 136 social reporting concepts and programs to numer- 137 ous other nations and to international agencies, 138 such as the United Nations and the Organization 139 for Economic Cooperation and Development. 140 Institutionally, under the leadership of Wolfgang 141 Zapf, the German Sociological Association 142 appointed a Committee on Social Indicators in 143 1972, which was instrumental in the formation of 144 ▶ Working Group 6 on Social Indicators and 145 Social Reporting of the International Sociologi- 146 cal Association in 1988. This Working Group 147 promoted international attention to social indica- 148 tors by serving as a network to facilitate the 149 exchange of information and by organizing ses- 150 sions on social indicators and ▶ quality-of-life 151 topics at the meetings of the ISA held every 152

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four years. By 2010, the Research Committee was sufficiently strong and well established to become Research Committee 55 of the ISA.

History of Social Indicators and Its Evolution

In contrast to the 1970s, however, social indicators activities generally slowed in the 1980s, as funding cuts led to the closing of the Center for Coordination of Research on Social Indicators; the discontinuation of related work at several international agencies; the termination of government-sponsored social indicators reports in some countries, including the United States; and the reduction of statistical efforts to monitor various aspects of society. Several explanations have been cited for this turnabout (Andrews, 1989; Bulmer, 1989; Innes, 1989; Johnston, 1989; Rockwell, 1987). Certainly, politics and the state of national economies in the early 1980s are among the most identifiable proximate causes. In addition to these immediate factors, however, there was a perceived lack of demonstrated usefulness of social indicators in public policymaking.

Social Reporting in the 1990s

As the decade of the 1990s unfolded, the model of a comprehensive national social report in the tradition pioneered by Ogburn and Olson clearly had faltered in the United States, at least in the sense of federal government sponsorship and/or production. But the key ideas of social monitoring, reporting, and forecasting were evident to greater or lesser extents in the production of continuing, periodic subject-matter-specific publications by various federal government agencies with specific portfolios of responsibilities in such areas as science, education, and crime and justice (Land, 2000). Special topics involving groups of federal agencies also receive attention from time to time. For instance, the Federal Interagency Forum on Child and Family Statistics began in 1997 an annual publication on America's Children: Key National Indicators of Well-Being. In addition, numerous private research organizations, policy institutes, and scholars in the United States continued to produce reports, monographs, and books interpreting social trends and developments in various areas of social concern.

In contrast to the situation in the United States, 200 comprehensive social reports/social indicators 201 compendiums continued to be published period- 202 ically in several other countries during the 1990s. 203 Examples are the Social Trends series published 204 annually since 1970 by the United Kingdom's 205 Central Statistical Office, the Social and Cultural 206 Report published biannually by the Social 207 and Cultural Planning Office of the Netherlands, 208 and Australian Social Trends published annually 209 by the Australian Bureau of Statistics. Citations 210 and summary reviews of these and other social 211 indicators/social reports publications can be 212 found in the quarterly newsletter and review of 213 social reports, SINET: Social Indicators Network 214 News (for access, see the World Wide Web 215 Homepage: http://www.soc.duke.edu/dept/sinet/ 216 index.html/).

Quality of Life as a Unifying Concept

Another development became vividly apparent 219 in the 1990s (Land 1996): The widespread 220 Au2 political, popular, and theoretical appeal of the 221 quality-of-life (QOL) concept.

As noted above, this concept emerged and 223 became part of the social indicators movement 224 in the late 1960s and early 1970s as doubts were 225 raised in the highly developed Western industrial 226 societies about economic growth as the major 227 goal of societal progress (Noll & Zapf, 1994). 228 The "social costs" of economic growth were 229 cited, and there was increasing doubt about 230 whether "more" should be equated with "better." 231

The QOL concept which resulted from this 232 discussion was posed as an alternative to the 233 more and more questionable concept of the afflu- 234 ent society and entered discussions of social 235 policy and politics as a new, but more complex, 236 multidimensional goal. As a goal of social and 237 economic policy, QOL encompasses all (or at 238 least many) ▶ domains of life and subsumes, in 239 addition to individual material and immaterial 240 well-being, such collective values as ▶ freedom, 241 ▶ justice, and the guarantee of natural conditions 242 of life for present and future generations. 243 The political use of the QOL notion is paralleled 244 in the private sector by the widespread use and 245 popularity of numerous rankings - based on 246

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291 292 weighted scales of multiple domains of wellbeing –of the "best" places to live, work, do business, play, etc., be they cities, states, regions, or nations.

The theoretical appeal of the QOL concept as an integrating notion in the social sciences and related disciplines is, in part, due to the perceived importance of measuring individuals' subjective assessments of their satisfaction with various life domains and with life as a whole, which builds on the pioneering work on the measurement of subjective well-being reviewed above (Land, Michalos, & Sirgy, 2012). For instance, in the 1990s, QOL becomes a concept that bridges the discipline of marketing research and strategic business policy with social indicators. Marketing is an important social force - with far-reaching direct and indirect impacts on the prevailing QOL in a society - through consumer satisfaction (Samli, 1987; Sirgy & Samli, 1995) and its impact on satisfaction with life as a whole.

The intersection of marketing research with social indicators through the QOL concept led to the organization in the mid-1990s of the ▶ International Society for Quality-of-Life Studies (ISQOLS; for information about the Society and its activities, see the World Wide Web Homepage: http://www.cob.vt.edu/market/isqols/). ISQOLS sponsors periodic international conferences that bring together researchers from around the world who focus on the study of social indicators, well-being, and the quality of life. ISQOLS supports the *Social Indicators Research* journal, which, through the publication of as many as five volumes per year, now has over 100 volumes in print.

The formation of ISQOLS was followed by a number of initiatives in the creation of publication for research on social indicators and well-being/quality-of-life studies and the formation of related professional organizations with a focus on these topics. For instance, members of the society also were instrumental in initiating the publication of the ▶ Journal of Happiness Studies, the first volume of which appeared in the year 2000, and ISQOLS sponsors the ▶ Applied Research in Quality of Life journal as its official journal, with its first volume published in 2006. Members of

ISQOLS also participated in the formation of the 295 International Society for Child Indicators (ISCI) 296 in 2006. Similar in purpose to ISQOLS but with 297 a focus on the measurement and study of the well- 298 being of children, ISCI also sponsors periodic 299 international conferences and its official journal, 300 ▶ Child Indicators Research, the first volume of which appeared in 2008. Another special focus 302 group to which ISQOLS members have given 303 impetus is the Community Indicators Consortium 304 (CIC; www.communityindicators.net) which was 305 conceived at community indicators conferences 306 co-organized by ISQOLS in 2002 and 2004 and then formally organized in 2005. The CIC 308 publishes special reports and special issues in 309 journals. Most recently, ISOLS members partic- 310 ipated in the organization of the Italian Associa- 311 Quality-of-Life Studies (AIQUAV) tion of in 2011.

Social Reporting in the Early 2000s: Composite Indices of the Quality of Life

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As the early decades of the twenty-first century 316 unfolded, it also was evident that the field of 317 social indicators entered a new era of the con- 318 struction of summary or ▶ composite indices of 319 the quality of life. Often these indices attempt to 320 summarize indicators (objective and/or subjec- 321 tive) of a number of domains of life into 322 a single index of the quality of life. They thus 323 attempt to answer the original questions motivating the social indicators movement: How are we 325 doing overall? With respect to our past? With 326 respect to other comparable units (e.g., cities, 327 states, regions, nations)? Many of the pioneers 328 of the social indicators movement in the 1960s 329 and 1970s backed away from the development of 330 summary indices to concentrate on conducting 331 basic research on social indicators and the mea- 332 surement of the quality of life and the develop- 333 ment of a richer social data base.

With the tremendous increase in the richness of social data available for many societies today as compared to a few decades ago, a new generation of social indicators researchers has returned to the task of summary index construction. Some examples are as follows:

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- At the level of the broadest possible comparisons of nations with respect to the overall quality of life, the ► Human Development Index (United Nations Development Program, 2001), Diener's (1995) Value-Based Index of National Quality of Life, and Estes (1988, 1998) ► Index of Social Progress
- 2. At the level of comparisons at the national level over time, the ▶ Netherlands' Life Situation Index (LSI; Boelhouwer, 2010), the Australian Unity Well-Being Index (AUWBI; Cummins, Woerner, Tomyn, Gibson, & Knapp, 2005), and the US Foundation for Child Development ▶ Child and Youth Well-Being Index (FCD-CWI; Land, Lamb, & Mustillo, 2001; Land, Lamb, Meadows, & Taylor, 2007)

The field of social indicators likely will see several decades of such index construction and competition among various indices — with a corresponding need for careful assessments to determine which indices have substantive ▶ validity for which populations in the assessment of the quality of life and its changes over time and social space.

Social Indicators and Social Report in 2010 and Beyond: Three Types of Indicators

The field of social indicators research and social reporting continues to be intellectually vibrant and active in the production of knowledge of societies, living conditions, and well-being. In addition to the measurement of well-being/quality of life and composite indices themes just described, there appears consensus on the existence and need for three types of indicators – policy or criterion indicators, subjective well-being indictors, and descriptive indicators (Land, 2000).

Based on the premise that social indicators should relate directly to social policymaking considerations, an early definition by economist Mancur Olson, the principal author of *Toward a Social Report*, characterized a social indicator as a "...statistic of direct normative interest which facilitates concise, comprehensive and balance judgements about the condition of major aspects of a society" (U.S. Department of

Health, Education, and Welfare, 1969, p. 97). 388
Olson went on to state that such an indicator is, 389
in all cases, a direct measure of welfare and is 390
subject to the interpretation that if it changes in 391
the "right" direction, while other things remain 392
equal, things have gotten better or people are 393
better off. Accordingly, by this definition, statistics on the number of doctors or police officers 395
could not be social indicators, whereas figures on 396
health or crime rates could be. 397

In the language of policy analysis (Fox, 1974), 398 social indicators are "target" or "output" or "outcome" or "end-value" variables, toward changes 400 in which some public policy (program, project) is 401 directed. Such a use of social indicators requires 402 (Land, 1983) that (a) members of a society agree 403 about what needs improving; (b) it is possible to 404 decide unambiguously what "getting better" 405 means; and (c) it is meaningful to aggregate the 406 indicators to the level of aggregation at which the 407 policy is defined.

In recognition of the fact that various other 409 meanings have been attached to the term social 410 indicators, the tendency among recent authors is 411 to use a somewhat different terminology for the 412 class of indicators identified by Olson. Building 413 on the Olson approach, MacRae (1985) defined 414 policy indicators as "measures of those variables 415 that are to be included in a broadly policy-416 relevant system of public statistics." With 417 a meaning similar to that of MacRae, Ferriss 418 (1989) used the term *criterion indictors*.

Another class of social indicators has its roots 420 in the research on subjective well-being in the 421 1970s cited above. This initial research has 422 given birth to a huge literature on subjective 423 well-being, ▶ life satisfaction, or ▶ happiness 424 indicators. These studies examine aspects of 425 human experiences or domains ranging from the 426 highly specific (house, family, etc.) to the global 427 (life as a whole). A large number of other studies 428 and applications of these concepts and techniques 429 have appeared (for reviews, see Diener, 1994; 430 Diener, Suh, Lucas, & Smith, 1999; Diener, 431 Lucas, Schimmack, & Helliwell, 2009) and con- 432 tinue to appear – one or more studies of subjec- 433 tive well-being indicators can be found in almost 434 any issue of the journal Social Indicators 435

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Research and in many other social science journals. Early research on the related concept of happiness as an index of well-being was surveyed by Veenhoven (1984).

The connection of subjective well-being to income levels has been a particularly intriguing problem for social indicators researchers ever since Easterlin (1973) finding that income differences between nations predicted national differences in happiness but that the association of happiness with income within countries was much weaker. Recent research has focused on Diener's disaggregation of high subjective wellbeing into "high life satisfaction, the presence of ▶ positive affect and the absence of ▶ negative affect." From a different perspective, Kahneman and his collaborators distinguished life evaluation from ▶ experienced happiness, which is defined by positive and negative affect. And research by Diener and Kahneman (2009) using these conceptual refinements has led to the conclusion that Easterlin was both right and wrong and that his finding needs to be revised in the sense that economic growth might have only a small impact on people's average ongoing feelings of well-being (affect, experienced happiness) but may heighten people's life evaluations. Studies of why income is differently associated with feelings versus life evaluations will no doubt continue to enliven this topic.

Building on the Ogburn legacy of research on social trends, a third approach to social indicators focuses on social measurements and analyses designed to improve our understanding of what the main features of society are, how they interrelate, and how these features and their relationships change (Sheldon & Parke, 1975). This produces descriptive social indictors - indices of the state of society and changes taking place therein. Although descriptive social indicators may be more or less directly (causally) related to the well-being goals of public policies or programs and thus include policy or criterion indicators, they are not limited to such uses. For instance, in the area of health, descriptive indictors might include preventive indicators such as the percent of the population that does not smoke cigarettes, as well as criterion indicators such as the number of days of activity 484 limitations in the past month or an index of self- 485 reported satisfaction with health.

The various statistical forms that descriptive 487 social indicators can take are described by Land 488 (1983). These can be ordered by degree of 489 abstraction from those that require only one or 490 two data series and little processing (e.g., an age- 491 specific death rate) to those that involve more 492 complicated processing into a single summary 493 index (e.g., years of life expectancy at age x, 494 years of active or disability-free life expectancy 495 at age x, years of happy life expectancy at age x). 496 Descriptive social indicators can be formulated at 497 any of these levels of abstraction. Moreover, as 498 described in Juster and Land (1981), these indi- 499 cators can, at least in principle, be organized into 500 demographic- or time-budget-based systems of 501 social accounts.

Even though these three types of social indi- 503 cators can be distinguished conceptually, it 504 should be emphasized that they are not exclusive. 505 That is, any specific indicator can be both 506 descriptive and criterion, both descriptive and 507 subjective well-being, subjective and descriptive, 508 or have all three attributes. It also is possible, 509 however, for an indicator to be primarily 510 a criterion, descriptive, or subjective well-being 511 indicator.

Social Indicators and Social Report in 2010 and Beyond: Web-Based Social Reports

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In concluding this statement on the history and 515 evolution of social indicators and social 516 reporting, one final attribute of the field in the 517 decades beyond 2010 is so evident that it almost 518 escapes explicit notice – the permeation of the 519 field by the Internet and the World Wide Web 520 (WWW).

The notions of social indicators and programs 522 of social reporting commenced long before the 523 innovation and diffusion of the WWW in the 524 1990s and early 2000s. However, the WWW and the associated availability of all types of 526 information through computers and related 527 high-speed electronic devices now is an ever- 528 present aspect of many lives throughout the 529 world. Social indicators and social reports are 530

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no exception. Today, all of the periodic international and national social reports mentioned 532 above and many others are published on the 533 WWW as well as in printed volumes, and, indeed, some reports are published exclusively on the 535 Web. This is associated with a change in the 536 nature of human access to information and 537 storage of that information that is likely to con-538 tinue indefinitely into the future. The implica-539 tions of this for social indicators and social 540 reporting have yet to be fully described and 541 studied. 542

References

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- Andrews, F. M. (1989). The evolution of a movement. 545 Journal of Public Policy, 9, 401–405.
- Andrews, F. M., & Withey, S. B. (1976). Social indicators 546 547 of well-being: Americans' perceptions of life quality. 548 New York: Plenum.
- Bauer, R. A. (Ed.). (1966). Social indicators. Cambridge, 549 MA: MIT Press. 550
- Boelhouwer, J. (2010). Well-being in the Netherlands: 551 The SCP life situation index since 1974. The Hague: 552 The Netherlands Institute for Social Research (SCP). 553
- Bulmer, M. (1989). Problems of theory and measurement. 554 Journal of Public Policy, 9, 407-412. 555
- 556 Campbell, A., & Converse, P. E. (1972). The human meaning of social change. New York: Russell Sage. 557
 - Campbell, A., Converse, P. E., & Rodgers, W. L. (1976). The quality of American life: Perceptions, evaluations, and satisfactions. New York: Russell Sage.
- Carley, M. (1981). Social measurement and social indica-561 562 tors: Issues of policy and theory. London: George 563 Allen and Unwin.
 - Cummins, R. A., Woerner J., Tomyn, A., Gibson, A., & Knapp T. (2005). Australian unity wellbeing, index: Report 14 – the wellbeing of Australians – personal relationships. Melbourne: Australian Centre on Quality of Life, School of Psychology, Deakin University. http://www.deakin.edu.au/research/ acqol/index_wellbeing/index.htm
 - Diener, E. (1994). Assessing subjective well-being: Progress and opportunities. Social Indicators Research, 31, 103-157.
- Diener, E. (1995). A value based index for measuring 574 575 national quality of life. Social Indicators Research, 36, 107-127, 576
- Diener, E., & Kahneman, D. (2009). The Easterlin para-577 578 dox revisited, revised, and perhaps resolved. SINET: Social Indicators Network News, 100, 1–3. 579
- Diener, E., Lucas, R. E., Schimmack, U., & Helliwell, J. F. 580 (2009). Well-being for public policy. Oxford: Oxford 581 University Press. 582

- Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. Psychological Bulletin, 125, 276-302.
- Duncan, O. D. (1969). Toward social reporting: Next 586 steps. New York: Russell Sage.
- Easterlin, R. (1973). Does money buy happiness? The 588 Public Interest, 30, 3-10.
- Estes, R. J. (1988). Trends in world development. New York: Praeger.
- Estes, R. J. (1998). Social development trends in the successor states to the former Soviet Union: The 593 search for a new paradigm. In K. R. Hope Jr. (Ed.), 594 Challenges of transformation and transition from 595 centrally planned to market economies (pp. 13-30). Nagoya: United Nations Centre for Regional Development.
- Ferriss, A. L. (1988). The uses of social indicators. Social Forces, 66, 601-617.
- Ferriss, A. L. (1989). Whatever happened, indeed! Journal of Public Policy, 9, 413-417.
- Fox, K. A. (1974). Social indicators and social theory: Elements of an operational system. New York: Wiley-Interscience.
- Innes, J. E. (1989). Disappointment and legacies of social 606 indicators. Journal of Public Policy, 9, 429-432.
- Johnston, D. F. (1989). Some reflections on the United States. Journal of Public Policy, 9, 433–436.
- Juster, F. T., & Land, K. C. (Eds.). (1981). Social accounting systems: Essays on the state of the art. New York: Academic.
- Land, K. C. (1975). Theories, models and indicators of social change. International Social Science Journal, 27, 7-37.
- Land, K. C. (1983). Social indicators. Annual Review of Sociology, 9, 1–26.
- Land, K. C. (2000). Social indicators. In: E. F. Borgatta & 618 R. V. Montgomery (Eds.), Encyclopedia of sociology (Rev. ed.) (pp. 2682–2690). New York: Macmillan.
- Land, K. C., Lamb, V. L., Meadows, S. O., & Taylor, A. (2007). Measuring trends in child well-being: An 622 evidence-based approach. Social Indicators Research, 80, 105-132.
- Land, K. C., Lamb, V. L., & Mustillo, S. K. (2001). Child and youth well-being in the United States, 1975–1998: Some findings from a new index. Social Indicators Research, 56, 241-320.
- Land, K. C., Michalos, A. C., & Sirgy, M. J. (2012). The development and evolution of research on social indicators and quality of life. Prologue to K. C. Land, A. C. Michalos, & M. J. Sirgy (Eds.), Handbook of social indicators and quality of life research. 633 New York: Springer.
- MacRae, D., Jr. (1985). Policy indicators: Links between social science and public policy. Chapel Hill: 636 University of North Carolina Press.
- National Commission on Technology, Automation and 638 Economic Progress. (1966). Technology and the American economy (Vol. 1). Washington, DC: U.S. 640 Government Printing Office. 641

642	Noll, HH., & Zapf, W. (1994). Social indicators
643	research: Societal monitoring and social reporting. Ir
644	I. Borg & P. P. Mohler (Eds.), Trends and perspectives
645	in empirical social research. New York: Walter de
646	Gruyter.
647	President's Research Committee on Social Trends
240	(1022) Pagent social trends in the United States

- (1933). Recent social trends in the United States. 648 649 New York: McGraw-Hill.
- Rockwell, R. C. (1987). Prospect for social reporting in 650 651 the United States: A receding horizon. In J. R. Pitts & 652 H. Mendras (Eds.), The Tocqueville review (Vol. 8). Charlottesville, VA: University Press of Virginia. 653
- Samli, A. C. (1987). Marketing and the quality-of-life 654 interface. Westport, CT: Quorum Books. 655
- 656 Sheldon, E. B., & Moore, W. E. (Eds.). (1968). Indicators of social change: Concepts and measurements. 657 New York: Russell Sage. 658
- Sheldon, E. B., & Parke, R. (1975). Social indicators. 659 Science, 188, 693-699. 660

- Sirgy, M. J., & Samli, A. C. (Eds.). (1995). New dimen- 661 sions in marketing/quality-of-life research. Westport, 662 CT: Quorum Books.
- U.S. Department of Commerce. (1974). Social indicators, 664 1973. Washington, DC: U.S. Government Printing 665
- U.S. Department of Commerce. (1978). Social indicators, 1977. Washington, DC: U.S. Government Printing 668
- U.S. Department of Commerce. (1980). Social indicators 670 (Vol. III). Washington, DC: U.S. Government Printing 671 Office.
- U.S. Department of Health, Education, and Welfare. 673 (1969). Toward a social report. Washington, DC: U.S. Government Printing Office.
- United Nations Development Program. (2001). Human 676 development report. New York: Oxford University 677
- Veenhoven, R. (1984). Conditions of happiness. Boston: 679 Reidel.

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Chapter No: 3318

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