M. Joseph Sirgy

Community Quality-of-Life Indicators

A Guide for Community Indicators Projects

Springer

Community Quality-of-Life and Well-Being

The Community Quality of Life and Well-being book series is a collection of volumes related to community level research, providing community planners and quality of life researchers involved in community and regional well-being innovative research and application. Formerly entitled, Community Quality of Life Indicators: Best Practices, the series reflects a broad scope of well-being. Next to best practices of community quality-of-life indicators projects the series welcomes a variety of research and practice topics as related to overall community well-being and quality of life dimensions, whether relating to policy, application, research, and/or practice. Research on issues such as societal happiness, quality of life domains in the policy construct, measuring and gauging progress, dimensions of planning and community development, and related topics are anticipated. This series is published by Springer in partnership with the International Society for Quality-of-Life Studies, a global society with the purpose of promoting and encouraging research and collaboration in quality of life and well-being theory and applications.

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*This book is dedicated to community
indicators researchers worldwide*

Preface

This book contributes to the literature of community indicators research. The book is designed as a training manual for graduate students taking a course in community development and community researchers who are interested in further education (and possibly getting certified) in community indicators research. The International Society for Quality-of-Life Studies (ISQOLS) offers a curriculum on community indicators research leading to certification as a Community Indicator Researcher. The certification program is administered through the Management Institute for Quality-of-Life Studies (MIQOLS). The complete curriculum is provided on ISQOLS Web site at www.isqols.org.

This book is designed to help community indicator researchers (and those who are stepping into this position) enhance their professional knowledge of the subject matter to enhance professional competence as Community Indicator Researchers. The book is divided into three major parts. The first part is essentially an introduction; the second part focuses on issues related to planning community indicators projects. The third part focuses on issues related to implementation.

Part I (Introduction) contains three chapters. The first chapter (Chap. 1) describes the basic concepts of community indicators projects: "community," "community indicators," and "community indicators projects." The second chapter (Chap. 2) discusses the theoretical foundations of community indicators research. Five theoretical concepts are described guiding the formulation of community indicator projects. The third chapter (Chap. 3) provides an example of a community indicators project as an illustration of the entire process without delving too much into details.

Part II (Planning) contains two chapters. Chap. 4 (Organizing) describes organizational aspects involved in planning—how to identify sponsors, secure funding, develop an organizational structure, etc. Chap. 5 (Making Decisions about Community Indicators) discusses issues related to the selection of a quality-of-life model, selection of indicators, and so on.

Part III (Implementation) focuses on issues related to data collection, data analysis, data reporting, promotion, and follow-up. Specifically, Chap. 6 focuses on data collection. Two types of data collection are described: secondary and primary data collection. The process of these two data collections is described in some detail.

Chap. 7 focuses on data analysis. In this chapter, we discuss how variables are construed and typical measurement scales. This is followed by a discussion of descriptive and inferential statistics commonly used in community indicators projects. Chap. 8 focuses on data reporting—aspects related to preparing two reports, namely the public report and the research report. Chap. 9 deals with promotion issues—printing and distributing the reports and promotion techniques commonly used.

Finally, the last chapter (Chap. 10) describes the last stage of the project, namely follow-up. In this chapter, we discuss how annual reviews are conducted by answering questions such as What, Why, When, Where, and Who. We also discuss how the impact of community indicators projects is measured.

Every chapter has a list of learning objectives. These objectives are designed to further guide the reader to the major points in the chapters and track learning progress. In addition, the Progress Checks provide a list of questions that should help the reader with learning. There are also answers to the questions pertaining to the Progress Checks at the end of every chapter. The reader is encouraged to answer the questions after reading through the chapter before examining the answers. The answers are designed to reinforce learning of the concepts discussed in the chapter.

Blacksburg, VA, USA   M. Joseph Sirgy

Contents

About the Author

M. Joseph Sirgy (https://sites.google.com/a/vt.edu/joe-sirgy-personal-website/) is a management psychologist (Ph.D., U/Massachusetts, 1979), the Virginia Tech Real Estate Professor Emeritus of Marketing at Virginia Polytechnic Institute and State University (USA), and an Extraordinary Professor at the WorkWell Research Unit at North West University—Potchefstroom Campus (South Africa).

He has published extensively in the area of business administration, business ethics, and quality of life (QOL). He co-founded the International Society for Quality-of-Life Studies (ISQOLS) in 1995, served as its Executive Director/Treasurer from 1995 to 2011, and as a development Co-Director (2011–present). In 1998, he received the Distinguished Fellow Award from ISQOLS.

In 2003, ISQOLS honored him as the Distinguished QOL Researcher for research excellence and a record of lifetime achievement in QOL research. He also served as a President of the Academy of Marketing Science (2002–2004) from which he received the Distinguished Fellow Award in the early 1990s and the Harold Berkman Service Award in 2007 (lifetime achievement award for serving the marketing professorate). In the early 2000s, he helped co-found the Macromarketing Society and the Community Indicators Consortium and has served as a board member of these two professional associations. He co-founded the journal, *Applied Research in Quality of Life*, the official journal of the International Society for Quality-of-Life Studies, in 2005; and he has served as a co-founding editor (1995–present). He also served as an editor of the QOL section in the *Journal of Macromarketing* (1995–2016). He received the Virginia Tech's Pamplin Teaching Excellence Award/Holtzman Outstanding Educator Award and University Certificate of Teaching Excellence in 2008.

In 2010, ISQOLS honored him for excellence and lifetime service to the society. In 2010, he won the Best Paper Award in the *Journal of Happiness Studies* for his theory of the balanced life; in 2011, he won the Best Paper Award in the *Journal of Travel Research* for his goal theory of leisure travel satisfaction.

In 2012, he was awarded the EuroMed Management Research Award for outstanding achievements and groundbreaking contributions to well-being and quality-

of-life research. In 2019, the Macromarketing Society honored him with the Robert W. Nason Award for extraordinary and sustained contributions to the field of Macromarketing. He is currently serving as an editor-in-chief of the *Journal of Macromarketing* (2020–present)

He also was the editor of ISQOLS/Springer book series on *International Handbooks in QOL* (2008–2015), *Community QOL Indicators: Best Cases* (2004–2015), *Applied Research in QOL: Best Practices* (2008–2012). He is currently the co-editor of Springer book series on *Human Well-Being and Policy Making* (2015–present).

His recent books include:

- Shultz II, Clifford J., Don R. Rahtz, and M. Joseph Sirgy (Eds.) (2022). ***Community, Economy, and COVID-19: Lessons from Multi-Country Analyses of a Global Pandemic***. Cham, Switzerland: Springer Nature.
- Sirgy, M. Joseph (2022). ***The Balanced Life: Using Strategies from Behavioral Science to Enhance Wellbeing***. Cambridge: Cambridge University Press.
- Sirgy, M. Joseph (2021). ***The Psychology of Quality of Life: Wellbeing and Positive Mental Health.*** 3rd edition. Dordrecht: Springer.
- Sirgy, M. Joseph (2020). ***Positive Balance: A Theory of Well-Being and Positive Mental Health.*** Dordrecht: Springer Publishing.
- Sirgy, M. Joseph, Richard J. Estes, El-Sayed El-Aswad, and Don R. Rahtz (2019). ***Combatting Jihadist Terrorism through Nation Building: A Quality-of-Life Perspective.*** Dordrecht: Springer Publishing.
- Estes, Richard J. and M. Joseph Sirgy (2018). ***Advances in Well-Being: Toward a Better World***. London: Rowman & Littlefield Publishers.
- Uysal, Muzaffer, Stefan Kruger, and M. Joseph Sirgy (Eds.) (2018). ***Managing Quality of Life in Tourism and Hospitality: Best Practices***. Oxfordshire, UK: CABI Publishers.
- Estes, Richard J. and M. Joseph Sirgy (Eds.) (2017). ***The Pursuit of Well-being: The Untold Global History***. Dordrecht, Netherlands: Springer Publishing.
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- Sirgy, M. Joseph (2012). ***The Psychology of Quality of Life: Hedonic Well-Being, Life Satisfaction, and Eudaimonia***. 2nd edition. Dordrecht, Netherlands: Springer Publishing.
- Reilly, Nora P., M. Joseph Sirgy, and C. Allen Gorman (Eds.) (2012). ***Work and Quality of Life: Ethical Practices in Organizations***. Dordrecht, Netherlands: Springer Publishing.
- Uysal, Muzaffer, Richard Perdue, and M. Joseph Sirgy (Eds.) (2012). ***Handbook of Tourism and Quality-of-Life Research: Enhancing the Lives of Tourists and Residents.*** Dordrecht, Netherlands: Springer Publishing.
- Land, Kenneth C., Alex C. Michalos, and M. Joseph Sirgy (Eds.) (2012). ***Handbook of Social Indicators and Quality-of-Life Research***. Dordrecht, Netherlands: Springer Publishing.

In relation to community indicators research, the author has been involved in community indicators research for many years. He has authored many publications in this area. He was also a co-editor of Springer's book series on *Community Quality-of-Life Indicators: Best Cases* (2004–2015) with professors Rhonda Phillips (Purdue University) and Don Rahtz (College of William & Mary). He has been an instructor of the Community Indicators Research Certification Program (a certification program of the International Society for Quality-of-Life Studies, ISQOLS; https://isqols.org/Certification) for many years, and he wrote the training manual for the program. The book is based on this training manual. Finally, he has been involved as a member of a taskforce of a regional community indicators project in Southwest Virginia: The New Century Council.

Part I
Introduction

As previously mentioned, Part I (Introduction) contains three chapters. The first chapter (Chap. 1) describes the basic concepts of community indicators projects: "community," "community indicators," and "community indicators projects."

The second chapter (Chap. 2) discusses the theoretical foundations of community indicators research. Five theoretical concepts are described guiding the formulation of community indicator projects.

The third chapter (Chap. 3) provides an example of a community indicators project as an illustration of the entire process without delving too much into details.

Chapter 1
Introduction

In this introductory chapter, we will discuss basic concepts such as "community," "community indicators," and "community indicators projects."

Learning Objectives
In this chapter the reader should be able to answer the following questions:

1. What is a "community"?
2. What are "community indicators"?
3. What are good examples of community indicators from well-established community quality-of-life indices?
4. What are "community indicators projects"?

Community

A community, is a grouping of people based on some geographic, demographic, or other social criterion. Most community indicators projects focus on geographic units as explicitly defined through a country's census. For example, the U.S. Census Bureau identify six levels of geographic units: block, block group, census track, county, state, and national. As such, "communities of place are connected through geography, governance, or common characteristics that bind people together, whether implicitly or explicitly" (Sung & Phillips, 2018, p. 65).

A *block* is a statistical area bounded by visible features (e.g., roads, streams, and railroad tracks) or nonvisible features (e.g., property lines, city or county limits, and school districts). It is considered to be the smallest geographic unit in the U.-S. Census. There are more than 11 million blocks in the 2010 U.S. Census

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(US Census Bureau, 2019). The American Community Survey (ACS)[1] [https://www.census.gov/programs-surveys/acs/] provides information about a population down to a block-level analysis. A *block group* is a geographical unit considered between a census track and a census block. Typically, block groups have a population of 600–3000 people.[2] A *census track* is a geographic unit typically containing a population between 2500 and 8000 people. They tend to be located in census metropolitan areas that have a core population of 50,000 or more.[3] For example, in the State of Alabama, the 2010 Census contains 1181 census tracks, 3438 block groups, and 252,266 blocks (US Census Bureau, 2019). A county, on the other hand, is a primary legal division in most states in the U.S., Most counties reflect governmental units. Counties are referred to as "parishes" in the State of Louisiana.[4]

Most community indicator projects focus on large geographic units such as towns, cities, and counties (legal geographic jurisdictions), or an amalgam of towns/cities/counties that conjoin to serve a specific region. For example, I was involved with a community indicators project—Vital Signs Project of the New Century Council—that reflected the interests of residents of 12 counties in western Virginia, USA.

This is not to say that a "community" cannot be defined using non-geographic criteria (demographics or other social criteria). There are many community indicators projects that focus on non-geographic population. For example, the Annie E. Casey Foundation have long conducted a community indicators projects referred to as the Kid Count.[5] This project tracks 16 areas of child well-being across four domains: health, education, family and community and economic well-being by each state in the U.S. As such, the "community" in this context is defined by a demographic characteristic (i.e., children) and crossed by geography (i.e., state). Other community indicators projects focus on a particular area of community well-being (e.g., public health). Examples include the Community Health Improvement Plan for Austin/Travis County (Texas),[6] the Dallas County Mental Health Indicator Parity project (Prabhakar et al., 2009), the Jacksonville's Race Relations Progress Report (Warner, 2009).

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[1] The American Community Survey (ACS) is an ongoing survey that provides vital information on a yearly basis about the population in the United States (https://www.census.gov/programs-surveys/acs/about.html).

[2] Definition is from the United States Census Bureau Glossary [Glossary (census.gov)].

[3] Definition is from the United States Census Bureau Dictionary [Census tract (CT) - Census Dictionary (statcan.gc.ca)].

[4] Definition is from the United States Census Bureau Terms and Definitions [Terms and Definitions (census.gov)].

[5] See information about this community indicators project from the foundation's website at: 2019 KIDS COUNT Data Book - The Annie E. Casey Foundation (aecf.org).

[6] Information about this community indicators project can be accessed from: http://austintexas.gov/sites/default/files/files/Health/CHA-CHIP/2018_Travis_County_CHIP_FINAL_9.12.18.pdf

Community Indicators

Community indicators are measures of specific aspects of community well-being. Aspects of community wellbeing may include economic well-being of the residents residing in the designated community, their social wellbeing, their environmental wellbeing, their health and safety, etc. For example, the Center for Disease Control and Prevention (CDC) in the U.S. has much data about public health indicators. These indicators reflect many health-related topics: alcohol use, arthritis, asthma, autism, birth defects, breastfeeding, cancer, chronic kidney disease, diabetes, heart disease, etc. Within each topic indicators are concrete measures used to guide data collection. For example, the CDC captures data related to alcohol use using the following indicators. Specifically, *prevalence of alcohol use* is captured using the following indicator: *Percent of adults aged 18 and over who had at least one heavy drinking day (five or more drinks for men and four or more drinks for women) in the past year*. In contrast, *mortality related to alcohol use* is usually captured through two indicators: *Number of alcoholic liver disease deaths* and *Number of alcohol-induced deaths, excluding accidents and homicides.*[7]

A good example of community indicators is the AARP's Livability Index (www. livabilityindex.aarp.org). The community indicators inherent in the Livability Index was developed by the AARP Public Policy Institute. The institute rates every neighborhood and community in the United States using 60 indicators spread across seven categories of livability: housing, neighborhood, transportation, environment, health, engagement, and opportunity. The institute uses more than 50 national sources of data. AARP defines a "livable community" to be a community that is safe and secure, has affordable and appropriate housing and transportation options, and offers supportive community services. These community conditions and services coalesce to enhance the quality of life of elderly residents by encouraging personal independence, fostering aging residents to engage in the community's civic, economic, and social life. See Box 1.1 for more information about the AARP's Livability Index.

Box 1.1 AARP's Livability Index Captures Community Quality of Life of Local Places in the United States

The Livability Index (www.livabilityindex.arrp.org/) is a composite index of 60 indicators categorized into seven broad dimensions of community livability: housing, neighborhood, transportation, environment, health, engagement, and opportunity. Metric values and policy points of the indicators within each dimension are combined to create dimension score. Each dimension contains

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[7]Information about these indicators can be accessed from: https://www.cdc.gov/nchs/fastats/alcohol.htm

Box 1.1 (continued)

4–9 metrics and 2–5 policy points. Metrics capture how livable a community currently is; policy points capture steps communities take to increase their future livability. In turn, dimension scores are then averaged to create an overall livability score for the community question in question (selected U.-S. neighborhood, city, or county).

Housing (affordability and access): The *metrics* involved in this dimension are *housing accessibility* (% of housing units in a neighborhood with zero-step entry—can be entered by foot, wheelchair, or walker), *housing options* (% of housing units in a neighborhood that are not single-family, detached homes), *housing affordability/cost per month* (monthly housing costs measured at the neighborhood level), *housing affordability/housing cost burden* (% of income devoted to monthly housing costs measured at the neighborhood level), and *housing affordability/availability of subsidized housing* (number of subsidized housing units per 10,000 people measured at the neighborhood level). The *policies* involved in this dimension are *housing accessibility* (state and local that make housing accessible for people of all abilities), *housing affordability/trust funds* (state and local funds that support the development and preservation of affordable housing), *housing options* (state laws guaranteeing notice and/or first right of purchase to residents of manufactured housing communities to sale), *housing affordability/foreclosure prevention and protection* (state policies and programs that protect homeowners from losing their homes to foreclosure), and *comprehensive livability commitment* (communities that have taken comprehensive steps to prepare for the aging of the U.S. population).

Neighborhood (access to life, work, and play): The *metrics* involved in this dimension are *proximity to destinations/access to grocery stores and farmers' markets* (number of grocery stores and farmers' markets within a half-mile measured at the neighborhood level), *proximity to destinations/access to parks* (number of parks within a half-mile measured at the neighborhood level), *proximity to destinations/access to libraries* (number of libraries located within a half-mile measured at the neighborhood level), *proximity to destinations/access to jobs by transit* (number of jobs accessible within a 45-min transit commute measured at the neighborhood level), *proximity to destinations/access to jobs by auto* (number of jobs accessible within a 45-min automobile commute measured at the neighborhood level), *mixed-use neighborhoods* (mix of jobs within a mile measured at the neighborhood level), *compact neighborhood* (combined number of jobs and people per square mile measured at the neighborhood level), *personal safety* (combined violent and property crimes per 10,000 people measured at the county level), and *neighborhood quality* (% of vacant housing units measured at the neighborhood level).The *policies* involved in this dimension are *mixed-use neighborhoods*

Box 1.1 (continued)

(state and local programs that support transit-oriented development) and *comprehensive livability commitment* (communities that have taken comprehensive steps to prepare for the aging of the U.S. populations).

Transportation (safe and convenient options): The *metrics* involved in this dimension are *convenient transportation options/frequency of local transit service* (total number of buses and trains per hour in both directions for all stops within a quarter-mile measured at the neighborhood level), *accessible system design* (% of transit stations and vehicles that are ADA-accessible measured at the metro area level), *convenient transportation options/walking trips* (estimated walk trips per household per day measured at the neighborhood level), *convenient transportation options/congestion* (estimated total hours that the average commuter spends in traffic each year measured at the metro are level), *transportation costs* (estimated household transportation costs measured at the neighborhood level), *safe streets/speed limits* (average speed limit on street and highways measured at the neighborhood level), and *safe streets/crash rate* (annual average number of fatal crashes per 100,000 people measured at the neighborhood level). The *policies* involved in this dimension are *safe streets* (state and local complete streets policies), *convenient transportation options/human services transportation coordination* (state human services transportation coordination councils), *convenient transportation options/volunteer driver policies* (state policies that remove barriers to volunteer driver programs), and *comprehensive livability commitment* (communities that have taken comprehensive steps to prepare for the aging of the U.S. population)

Environment (clean air and water): The *metrics* involved in this dimension are *water quality* (% of the population getting water from public water systems with at least one health-based violation during the past year measured at the county level), *air quality/regional air quality* (number of days per year when regional air quality in unhealthy for sensitive populations measured at the county level), *air quality near-roadway pollution* (% of the population living within 200 meters of a high-traffic road with more than 25,000 vehicles per day measured at the neighborhood level), and *air quality/local industrial pollution* (toxicity of airborne chemicals released from nearby industrial facilities measured at the neighborhood level). The *policies* related to this dimension are *resilience/state utility disconnection policies* (state date-based policies prohibiting disconnection of utility service), *resilience/local multi-hazard mitigation plans* (approved local multi-hazard mitigation plans), *energy efficiency* (state policies that support energy-efficient buildings, facilities, and appliances), and *comprehensive livability commitment* (communities that have taken comprehensive steps to prepare for the aging of the U.S. population).

Box 1.1 (continued)

   Health (prevention, access and quality): The *metrics* involved with this dimension are *healthy behaviors/smoking prevalence* (estimated smoking rate measured at the county level), *healthy behaviors/obesity prevalence* (estimated obesity rate measured at the county level), *healthy behaviors/access to exercise opportunities* (% of people who live within a half-mile of parks and within a mile of recreational facilities measured at the county level), *access to health care* (severity of clinician shortage measured at the health professional shortage area level from 0 to 25), *quality of health care/preventable hospitalization rate* (number of hospital admissions for conditions that could be effectively treated through outpatient care per 1000 patients measured at the hospital service area level), and *quality of health care/patient satisfaction* (% of patients who give are hospitals a rating of 9 or 10 indicating the highest level of satisfaction measured at the hospital area level). The *policies* involved in this dimension are *healthy behaviors* (state laws that prohibit smoking in workplaces, restaurants, and bars) and *comprehensive livability commitment* (communities that have taken comprehensive steps to prepare for the aging of the U.S. population).

   Engagement (civic and social involvement): The *metrics* involved in this dimension are *internet access* (% of residents who have access to 3+ wireline internet service providers and 2+ providers that offer maximum download speeds of 50 megabits per second measured at the neighborhood level), *civic engagement/opportunity for civic involvement* (number of civic, social, religious, political, and business organizations per 10,000 people measured at the county level), *civic engagement/voting rate* (% of people ages 18 or older who voted in the last presidential election measured at the county level), *social engagement/social involvement index* (extent to which residents eat dinner with household members, see or hear from friends and family, talk with neighbors, and do favors for neighbors measured at the metro area scale from 0 to 2), and *social engagement/culture, arts, and entertainment institutions* (number of performing arts companies, museums, concert venues, sports stadiums, and movie theaters per 10,000 people measured at the neighborhood level). The *policies* involved in this dimension are *internet access* (absence of state policies that prevent cities from operating public broadband networks), *civic engagement* (state laws allowing early, no excuse absentee, or mail-in voting), *equal right/local human rights commissions* (local human rights commissions), *equal rights/local LGBT anti-discrimination laws* (total score of 75 or greater from the Human Rights Campaign Municipality Equality Index), and *comprehensive livability commitment* (communities that have taken comprehensive steps to prepare for the aging of the U.S. population).

   Opportunity (inclusion and possibilities): The *metrics* involved in this dimension are *equal opportunity* (Gini coefficient capturing the gap between

Box 1.1 (continued)

the rich and the poor measured at the county level), *economic opportunity* (number of jobs per person in the workplace measured at the metro area level), *educational opportunity* (adjusted 4-year high school cohort graduation rate measured at the school district level), and *multi-generational communities* (age-group diversity of local population compared to the national population measured at the neighborhood level). The *policies* involved in this dimension are *local fiscal health* (local government AAA general obligation bond rating), *economic opportunity* (state minimum wag is higher than the federal minimum wage and is adjusted for increases in the cost of living), and *equal opportunity* (state policies that expand upon the federal Family and Medical Leave Act to provide additional leave benefits to workers).

Source: Adapted from AARP's Public Policy Institute's in relation to the Livability Index (https://livabilityindex.aarp.org/)

Community indicators is, of course, a major focus of community indicators projects and a core aspect of this book. In Chap. 1 of the book we will discuss how community indicators in some depth as a function of two approaches: top-down versus bottom-up approaches. The top-down approach reflects an approach to selecting community indicators in which researchers use well-established theoretical models of community well-being to generate a set of community indicators that are best suited to the community in question. These theoretical models of community well-being include personal utility, opulence, just society, human development, and sustainability. The bottom-up approach involves the use of representatives from various community stakeholders to identify important community well-being goals and translate these goals into tangible measures.

Community Indicators Projects

Community indicators projects refers to *a community-wide effort to organize, plan, collect and analyze community well-being data, and disseminate the results to community stakeholders in ways to influence community leaders to take future action for the purpose of enhancing community well-being* (Chambers & Swain, 2006). Community indicators projects are designed to accomplish four major goals: (1) assess the quality of life in the selected geographic unit, (2) educate community residents about the economy, education, health, public safety, natural environment, and social environment, (3) act as a catalyst for social and political change, and (4) help evaluate the impact of social and political programs and policies (cf. Zachary, 2009). See Box 1.2.

Box 1.2 Objectives of a Community Indicators Project: The Milwaukee's Menomonee River Valley

The objectives of the **Milwaukee's Menomonee River Valley** indicators project are multifold. These include:

– To raise awareness in the community regarding the current state of the Menomonee Valley and the progress made towards its revitalization;
– To create an information clearinghouse on data related to environmental, economic, and social indicators;
– To promote the principles of sustainability in an urban context by exploring issues and assembling data in a more holistic manner that considers economic, environmental, and social concerns;
– To generate practical synthesis of the raw data for the benefit of a wide variety of users;
– To stimulate research interest in the Valley as a complex laboratory for studying urban environments.

Source: Adapted from De Sousa, Gramling, and LeMoine (2009, p. 83)

However, there are instances in which a situation arises in a community that warrants the development of a monitoring system. An example involves the development of the Clark County Monitoring System (Conway et al., 2009). This monitoring system was prompted by a major event anticipated to create hazardous conditions in Clark County. Specifically, the U.S. Department of Energy made plans to ship 77,000 metric tons of high-level nuclear waste from civilian nuclear reactor sites and weapon facilities from throughout the country through Clark County, Nevada on its way for permanent geological burial at a repository at Yucca Mountain, Nevada. In response to this event Clark County officials developed and indicator-based monitoring program to capture the possible changes to the area's socio-economic, fiscal, environmental, and public health and safety.

A typical community indicators project involves several integral elements: organization, planning, data collection, data analysis and reporting, and dissemination and promotion of the results (see Fig. 1.1). *Organization* refers to efforts related to organize the community indicators project into an organizational entity with a bureaucratic structure. The organization's core function is, of course, the planning, data collection, data analysis and reporting, and dissemination and promotion of the results. To accomplish these tasks, a bureaucratic structure has to be in place to oversee the entire operation. Like all functioning organizations, the bureaucratic structure has to reflect the traditional functional units such as operations, finance, accounting, human resources, marketing, information technology, etc.

Planning involves identifying stakeholder groups that can be involved in the community indicators project, recruiting these groups, identifying representatives from the stakeholder groups, communicating and meeting with these representatives, raising financial resources, obtaining support from government officials and

Fig. 1.1 Elements and processes involved in community indicators projects
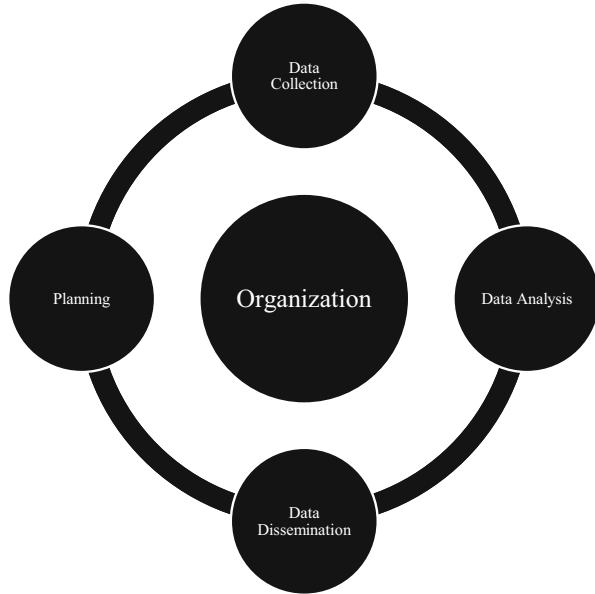
community leaders, deciding on which community indicators to focus on, among many other planning-related tasks. *Data collection, data analysis, and reporting* involve highly technical and research-related tasks. They are usually performed by those with research-related expertise such as social scientists, survey researchers, statistical analysts, and data mining specialists.

Finally, we have the *dissemination and reporting aspects* of the project. The project administrator coupled with the marketing and public relations staff take over these tasks to disseminate the projects results to the various stakeholder groups and other community leaders. The goal, of course, is to influence future decision making related to community development and to address quality-of-life issues of community residents.

The primary goal of community indicators projects is to provide allow community leaders and government officials develop and evaluate the extent to which community-level programs and policies have been effectiveness in improving community well-being. As such, community indicators projects provide much information about the quality-of-life effectiveness of programs and policies in place. Such information signals the need for reinforcing the programs and policies in place or signals the need to make changes or adjustments in those programs and policies. As such, community indicators projects can be viewed as foundational to evidence-based community interventions and development.

There are secondary goals related to community indicators projects too. Here is a list of secondary goals:

- Community indicators projects serve to engage and connect varied stakeholder groups within a community. Community cohesion is a secondary outcome.