

Investigating Quality of Urban Life

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Editors

Investigating Quality of Urban Life

Theory, Methods, and Empirical Research

 Springer

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Preface

All people and all places are concerned with quality of life (QOL). Therefore it is not surprising that the topic has attracted the attention of researchers from many disciplines since the 1960s. While the topic has been studied with regularity for nearly a half century by researchers in psychology, sociology, geography, planning, and other disciplines, the past decade has seen an acceleration of scholarly interest in QOL including a stream of studies investigating individual well-being and happiness. As most of the world's population now lives in urban areas, and with disparate populations in advanced nations being highly concentrated in large cities, it is inevitable that many QOL studies have focused on measuring and modeling aspects of life in urban areas or the quality of *urban* life (QOUL). This book addresses that focus.

In planning for this volume, we established three objectives:

- (a) First, we believed it was important to provide a detailed overview of the approaches that have emerged over the past half century in studies of QOL in general and QOUL in particular. This includes, on the one hand, approaches focusing on the objective measurement of QOL and QOUL using secondary analysis of aggregate data and, on the other hand, approaches focusing on the measurement and analysis of subjective evaluations and appraisals of QOL and QOUL. More recently, efforts have been made to integrate the objective and subjective approaches in studies of QOL and QOUL. These efforts have been enhanced with the advent and development of Geographic Information Systems (GIS) technologies. This objective is addressed in Chaps. 1–6.
- (b) Second, through our own research on QOUL including empirical studies in Detroit, Michigan (USA), and in Brisbane, Queensland (Australia), we were aware of the emergence of other research employing survey-based approaches to collecting information on aspects of both QOL and QOUL. The research was conducted in a number of urban settings, both large and small, in many parts of the world. Some of those studies used similar sets of questions to those used in the Detroit and Brisbane surveys although the modes of administering the surveys differed. Likewise, the purposes of the various studies, the particular aspects

of urban life addressed, and the level or scale of the urban environment varied from place to place. Thus, we wanted to provide a series of case studies conducted by people in our network of research colleagues that illustrated these different situations, approaches, and outcomes. This objective is addressed in Chaps. 7–14.

- (c) Third, we wanted to illustrate the application of new methodological approaches to analyzing and modeling QOL in general and QOUL in particular. Furthermore, we wanted to illustrate methodological advances that are being made to integrate the objective and subjective approaches including the increasing use of GIS tools to enhance such investigations. This objective is addressed in Chaps. 15–18.

What we cover in this book is necessarily selective and much of the research in the broader field related to QOL and QOUL has only been touched upon in the chapters that follow. For example, we have not considered the voluminous research that discusses the meaning of happiness and attempts to measure and model the concept. Such limitations are deliberate and may be considered shortcomings by others.

So what are we explicitly presenting in this edited volume?

By way of an *Introduction*, our initial chapter (An Overview of Quality of Urban Life) sets the stage for the investigation of QOUL by reviewing the various approaches that have emerged in research investigating QOL and especially QOUL since the 1960s. The chapter creates a framework for subsequent chapters that are organized into four parts.

Part I consists of three chapters that provide detailed reviews of three specific approaches used to investigate QOL and QOUL. These chapters offer detailed reviews of the literature and outline both the theoretical frameworks and methodological approaches that have been used in the research.

In Chap. 2 (Objective Measurement of Quality of Life using Secondary Data Analysis), we (Stimson and Marans) review approaches used in studies of objective QOL and QOUL based on the analysis of secondary aggregate data. Particular emphasis is placed on discussing the social indicators movement, on the use of territorial social indicators, and on the weighting of objective measures in QOUL studies. The chapter also refers to the proliferation in recent years of an industry that sets out to rate cities according to their QOL.

In Chap. 3 (Subjective Measurement of Quality of Life Using Primary Data Collection and the Analysis of Survey Data), Rod McCrea and John Western join us in tracing the evolution of subjective evaluations of QOL in general and the subjective assessment of aspects of QOUL. The subjective approach to QOL studies relies heavily on the use of social surveys to collect information from individuals and thus generate primary data. Much of that work was pioneered by researchers at the University of Michigan's Institute for Social Research. The chapter discusses a range of theoretical frameworks used to measure and model the subjective evaluation of QOL and to appraise aspects of QOUL, including the explicit investigation of urban domains at various levels or scales ranging from dwellings and neighborhoods to city-wide and regional levels. Many of those models are firmly embedded in theories of behavioral psychology. The chapter includes a discussion of the relationship

between the subjective appraisal of elements of the urban environment and research into residential location decision process and choice. It concludes with a reference to recently used agent-based modeling.

The evolution of integrative approaches to analyzing QOUL is discussed by McCrea, Stimson, and Marans in Chap. 4. Based on the assumptions that objective urban environments can affect people's assessments of their QOL and that people's satisfaction with urban living may occur at different scales, the chapter outlines the evolution of approaches that have sought to empirically investigate relationships between objective environmental indicators of QOUL and peoples' evaluation of their overall QOUL and their assessments of aspects of their urban environment, both physical and social. Various theories and models are discussed and the relatively meager empirical evidence concerning such relationships is appraised. The chapter also shows how GIS tools are enhancing the capability of researchers to better investigate and, especially when linked with statistical tools of analysis, to model and test hypothesized links between objective and subjective indicators of QOUL. In many ways this represents a cutting-edge of contemporary quantitative modeling approaches in the investigation of QOUL.

Part II of the book has two chapters in which empirical information is presented on the objective measurement of QOUL.

Taking a perspective derived from research in regional science, Chap. 5 by Gordon Mulligan and John Carruthers focuses on research that investigates relationships between urban amenities, QOL and regional development. The authors draw on empirical studies conducted mainly in the USA but also in Europe. This research focuses on investigating urban environmental and other amenities using the compensating differentials principle. It also considers the use of hedonic price models to identify the desirable/attractive and the undesirable/unattractive attributes of places that might affect overall urban amenity, and to determine what the effects might be on regional development and employment performance. In that research, natural and other amenity indexes have been constructed and mapped for places across the USA. Finally, the chapter discusses relationships between city size, technology, migration, and urban amenity in the context of QOUL.

In Chap. 6 Subhrajit Guhathakurta and Ying Cao present a case study investigating variations in objective QOUL across Phoenix, Arizona. They discuss the results of their research showing a series of objective indicators of QOUL and highlight the public policy implications of their work.

Part III of the book comprises eight chapters covering a series of case studies using survey methods to collect data from individuals and households on subjective evaluations of QOL and the subjective assessments of aspects of QOUL. The studies cover cities and/or regions in different situational settings in the USA, Australia, Europe, and Asia. The design of some of those QOUL studies was in part coordinated so that the survey questionnaires used had common sets of questions. Thus, there is a degree of comparability across some of the case studies. That research effort was initiated through an original collaboration between the research teams led by the editors of this volume who conducted the surveys in metro Detroit and in the

Brisbane-Southeast Queensland region. The chapters presented here detail the research design (e.g., sampling and questionnaire administration) used in each study and review key findings from their surveys. Each chapter provides a brief summary of the situational context for the study reported and the process of gathering and analyzing data. Furthermore, some of the case studies discuss the implications of findings for policy and planning.

In Chap. 7 (The Quality of Life in Metro Detroit at the Beginning of the Millennium), Marans and Byoung-Suk Kweon present results from the Detroit Area Study (DAS2001) that focused on the quality of community life. DAS2001 was significant in that it celebrated the 50th anniversary of the University of Michigan's DAS. The study involves a mixed-mode sample survey design used in collecting information from respondents on their QOL in general and in particular on a comprehensive range of aspects of QOUL across the many and diverse administrative entities comprising the metro Detroit area. There is a discussion of how the findings have been used in a policy context.

In Chap. 8 (The Brisbane-South East Queensland Region, Australia: Subjective Assessment of Quality of Urban Life and Changes over Time), Stimson, McCrea, and Western report on changes that have occurred between 1997 and 2003 in resident perceptions of QOL and QOUL across the Brisbane-Southeast Queensland region using data from surveys conducted in those 2 years. The survey instruments shared a number of questions used in the DAS2001 study. The chapter highlights the spatial variations that exist across 10 sub-regions of SEQ in subjective assessments of QOL domains and on factors that might affect QOUL at various levels or scales.

In Chap. 9, the situational context shifts dramatically to Istanbul, Turkey, a city that straddles Europe and Asia. In conducting the survey of QOUL in Istanbul metropolitan area, Handan Türkoğlu, Fulin Bölen, Perver Korça Baran, and Fatih Terzi, borrow heavily from the survey instrument used in the DAS2001 study, with a focus on investigating the subjective assessment of aspects of community life. In addition, the study offers an objective environmental assessment of the city's residential areas. In particular, the study seeks to investigate how different types of housing might affect the assessment of QOL in general and of aspects of QOUL throughout Istanbul neighborhoods.

In Chap. 10, Derya Oktay and Ahmet Rustemli investigate subjective QOUL and neighborhood satisfaction in Famagusta in Northern Cyprus. Their survey also draws heavily on questions used in the DAS2001 survey. In the Famagusta study particular attention is directed toward looking how subjective assessments of QOUL might effect moving intentions.

In Chap. 11, the situational context moves to Dhaka, Bangladesh, where Abul Mukim Mozammel Haque Mridha and Gary Moore investigate neighborhood quality as a major component of residential satisfaction. The chapter suggests how findings can influence residential design and planning policies.

Chapter 12 returns to a European context where Alexander G. Keul and Thomas Prinz describe a QOUL study in Salzburg, Austria, relying heavily on GIS support. A two-phase research design is used by the authors. In the first phase, a

survey investigating people's subjective assessments of several QOUL domains is conducted as a test in one of Salzburg's neighborhoods. In the second phase, six of the city's 24 districts are studied to compare subjective QOUL assessments. The study relies heavily on using GIS to test hypotheses relating to the impact of environmental factors on subjective assessments of QOUL.

In Chap. 13, the situational context changes to a consideration of subjective QOL in Queensland, Australia. McCrea, Mark Western, and Tung-Kai Shyy explicitly focus on investigating differences between three components of the settlement pattern in Queensland, Australia, namely, comparing the metropolitan area, regional cities/towns, and rural areas. The focus is on investigating these differences with respect to four specific attributes of the physical and social urban as well as overall QOL. A series of specific hypotheses are tested.

In Chap. 14, another case study covering the State of Washington in the USA is presented where subjective QOL between urban and rural residents is compared. Benjamin Messer and Don Dillman draw on two statewide studies conducted 37 years apart and focus on subjective community satisfaction across a range of 14 QOL issues/indicators and how those have changed over time. The study makes extensive use of statistical modeling to identify predictors of community satisfaction.

Part IV of the book comprises four chapters in which we provide examples of methodological innovations in analyzing and modeling QOUL. These are by no means exhaustive of the innovations that are occurring in QOL/QOUL research in recent years, but they do serve to illustrate the sort of new methodological approaches that are taking place.

In Chap. 16 (Disaggregating the Measurement of Quality of Urban Life Dimensions Across a Complex Metro Region: the Case of Metro Detroit), Byoung-Suk Kweon and Marans propose a new approach for considering geographic scale in QOL research using the data collected in the DAS2001 survey. The concern is to report findings from the analysis of subjective QOUL survey data at different geographic scales to reflect the different types of settlements or places that make up a region, in this case the Detroit metro area.

In Chap. 17 (A Spatial Clustering Approach Analyzing Types of Objective Quality of Urban Life Using Spatial Data for Survey Respondents: South-East Queensland, Australia), McCrea uses the 2003SEQQOL data set to illustrate how an integrated approach using spatial objective data for residents who responded to the survey can be employed to develop a statistical model to analyze types of objective QOUL. The focus is on using spatial clustering of objective indicators to identify different "types" of subjective QOUL relating to the residential locations (neighborhoods) of the survey respondents. The approach uses a number of GIS tools to integrate the survey data with spatial objective information available from a number of sources. Cluster analysis is used to do that and typologies (in this case four "groups") of objective QOUL are derived.

In Chap. 18, Prem Chhetri joins Robert Stimson and John Western in demonstrating how GIS tools may be employed to derive region-wide patterns of QOUL dimensions across a city. The chapter reports on two applications and uses data from

the 2003SEQQOL survey. In the first an “ordered weighted average” nonlinear aggregation technique is used to derive generalized patterns of the subjective assessment of QOUL dimensions across sub-regions of the SEQ region. The second identifies and maps generalized spatial patterns of the underlying dimensions (using Principal Components Analysis) of the subjective assessment of “neighborhood attractiveness attributes” that may have affected the choices made by survey respondents in deciding where to live. Those patterns are simulated and mapped using the “neighborhood operation” function in GIS.

The future of QOUL research is discussed in the final chapter (Chap. 19) by the editors. The authors give a recap the book’s content and based on their experiences in editing it outline a number of challenges that need to be addressed in future QOUL research

We hope that researchers and students interested in QOL and especially in QOUL will find this volume instructive and that some readers may be inspired to conduct new empirical studies in new situational contexts to help advance this important area of interdisciplinary research linking the social sciences and the environmental design and planning professions. We also hope the book may attract attention among politicians and bureaucrats as the outcomes of well-designed QOL/QOUL research can be used to inform policy and planning in the quest for an improved quality of life in urban areas.

Robert W. Marans and Robert J. Stimson

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