

RESEARCH NOTE

COMMUNITY-RELEVANT MEASUREMENT OF QUALITY OF LIFE A Focus on Local Trends

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A popular term for describing our cities emerged in the 1980s: *quality of life*. Recent efforts to measure quality of life have responded to the growing interest of citizens, business leaders, and government officials, but these measurements have emphasized comparisons among places. Although these measurements are of value for citizens and businesses who are comparison-shopping prospective new locations, locally committed citizens and organizations have different needs. Thus an alternative, community-oriented measurement process is required. The advice of local residents is essential for both selecting and weighting components for measurement. This community orientation also places emphasis upon the trends over time in different components of a community's quality of life. Closer attention to the local context of quality of life leads to a richer understanding of the subject.

The decade of the 1980s has witnessed rising popular and professional interest in the notion of the "quality of life" of cities. The recent motivation for interest and the concept in use of "quality of life" are different from earlier scientific studies of social well-being. In recent usage, *quality of life* has come to mean "livability." Although rarely stated explicitly, the following definition is implicit: *A community's quality of life is constructed of the shared characteristics residents experience in places (for example, air and water quality, traffic, or*

recreational opportunities), and the subjective evaluations residents make of those conditions. Despite scholarly agreement that quality of life is essentially a subjective experience (Campbell et al., 1976; Cutter, 1985; Wish, 1986a), recent research has concentrated on objective measurement of community-level factors because subjective data are not available for comparative research across large numbers of cities.

The strong interest in quality of life is rooted in the potency of its various implications for local business and politics. Different, sometimes competing, instrumental concerns underlie interest in community livability: (1) citizen or business comparisons of the livability of prospective new locations; (2) chamber of commerce and local government desires to attract new businesses; (3) local political debates over desired futures for a community's quality of life. Although they share an interest in local livability, the three instrumental concerns are distinctly different and reveal important implications for how quality of life should be measured.

Recent studies have stressed comparisons among cities, using standardized data for comparing certain commonalities. The best known study, the *Places Rated Almanac* (Boyer and Savageau, 1987), has garnered broad publicity for its ranking of Pittsburgh as the number-one city in livability. Such livability comparisons are valuable for citizens and businesses who are comparison shopping prospective new locations. However, comparisons may not fully serve the interests of citizens and leaders who already are committed to a single community and who seek to improve its quality of life over time. Although comparisons with other places can be informative, the crucial information need is for locally specific, longitudinal measurement of quality of life.

This article proposes a new method for quality-of-life measurement designed to address this need. The community-trend method is based on two premises. First, quality of life exists as a localexperience, and most people experience quality of life in a single community. Although travel and migration among cities provide comparative experience, long spans of citizens' adult lives are spent in a single city. The second premise is that people judge their community's livability by the *trends over time* in various aspects of the local quality of life.

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After a brief review of research measuring quality of life, the case is made for measuring quality of life as a local experience changing over time. The community-trend strategy of quality-of-life research is outlined, illustrating the method with reference to a case example carried out in Austin, Texas. Simple descriptive evidence is presented showing sharp changes in components of Austin's quality of life. Local citizens exhibit a fair degree of consensus about the relative importance they ascribe to the different factors undergoing change.

RECENT RESEARCH ON QUALITY OF LIFE

Research interest in quality of life emerged in the 1960s as part of scientific studies exploring social indicators; these included a distinct focus on measuring personal or social well-being. However, two different lines of measurement strategy soon emerged from the social-indicators movement—one focused on individual well-being and the other on urban quality of life. Sociologists in the social-indicators movement directed their efforts toward measuring correlates of personal well-being, defined as life satisfaction (Campbell et al., 1976; Andrews and Withey, 1976). At the same time, concern about "the urban crisis" of the late 1960s led other researchers to explore measurement of urban quality of life.¹

In recent years, community-level studies have dominated research on quality of life, in part because data are more readily available for such studies. An early study by the Urban Institute (Flax, 1972) established the viability of comparative community-level studies using social-indicators techniques. This study was soon followed by much more thorough research performed by Liu (1974) at the Midwest Research Institute. The latter study established a model of comprehensiveness that has been followed by popularized, nontechnical studies of the early 1980s. Although the *Places Rated Almanac* (Boyer and Savageau, 1985) is best known, now published by Rand McNally in a second edition, other comparative studies include Bowman et al. (1981), Conway and Liston (1981), and Marlin and Avery (1983).

The success of the *Places Rated Almanac* has attracted scholarly scrutiny, with some authors recommending minor revisions to its methodology (Loftus, 1985), and others rendering more fundamental criticism. Wish (1986a), Pierce (1985), and Cutter (1985) have all called for subjective data to justify priorities merely assumed by the com-

parative studies. In addition, urban planning scholars have objected strongly to the choice of indicators underlying *Places Rated Almanac's* rankings of metropolitan areas. As evidence, Landis and Sawicki (forthcoming) document instability of rankings between the two editions of the *Places Rated Almanac*, and they find very weak external validity for a number of the standards measured (see also Wish, 1986b). Elsewhere I have critiqued comparative rankings on four counts: (1) neglect of subjective data, (2) biased indicator selection and weighting, (3) poor availability of comparative data, and (4) poor attention to unique local features (Myers, 1987). The fundamental weakness is that emphasis on comparisons among many places leads to a focus on a few available, common denominators, ignoring unique local attractions and ignoring residents' perceptions of quality of life. Without close attention to how residents perceive their community's quality of life, we may not come close to measuring it.

Although comparative researchers have presented facts about community quality of life, they have not represented residents' concepts of their community's quality of life. A collection of facts should not be blindly asserted to add up to quality of life. The fault of recent comparative studies is that facts have not been selected and structured in a manner local residents would consider relevant; key factors may be omitted, other superfluous factors added, and weightings may be inconsistent with local views.

In addition, greater community relevance requires closer attention to the collective formulation of quality of life in a particular community. Milbrath (1979) emphasizes that community-level factors, often termed *public goods*, acquire greater attention in decision making than personal aspects of quality of life because the collective factors can be remedied only through concerted societal action (or by changing location). Local priorities in quality of life often are shaped by debates over political and economic considerations particular to the community; hence the political theories of community competition developed by human ecologists in sociology should be noted (Molotch, 1967, 1976; Logan, 1978). Residents frequently perceive a shared interest in the fate of their community, because the attributes forming the local quality of life constitute a *collective consumption good* contributing to the quality of their lives. Communities often are divided about the nature of their desired futures, and interest groups may view quality of life as important for different reasons. Political debates typically are rhetorical, in part because studies measuring comprehensive changes in the community quality of life have not been produced.

QUALITY OF LIFE AS LOCAL EXPERIENCE

Treating quality of life as a local experience is justified on four grounds. First, people are likely to gravitate toward places they prefer, and with time they may develop further attachment to local attributes. Second, people presumably judge their quality of life more by changes over time than by comparisons with other places. Third, local government decision making and political debates about quality of life focus on changes within the boundaries of the community. Finally, research findings acquire greater local credibility if they are grounded in local opinion. These arguments are addressed in turn in the following sections.

PREFERENCES AND PLACES

Whether residents of different cities have the same preferences must be questioned. The practice of fixing a constant set of weights to be used in comparisons of quality of life across cities assumes that a standard set of preferences exists. This assumption ignores the likelihood that people with different preferences for the collective goods constituting local quality of life will choose different places to live (Tiebout, 1956). From this reasoning, it is assumed residents of different places are attracted in part because their preferences conform to local features. Therefore, judgments of the place's quality of life must take account of these differential preferences (Milbrath, 1979).

As one illustration of erroneous assumptions about local preferences, the *Places Rated Almanac* rates climates poorly if they are hot and humid or very cold, with the result that many Texas and Florida cities are ranked as poorly as those in the northern Midwest. Yet many persons move to the Sunbelt because they prefer hot weather to cold. For example, Austin's climate is ranked poorly, 281 out of 329, but direct interviews with local residents in July and August revealed that only 15% thought the local weather detracted from quality of life.² Despite the excellent quality of the raw data about weather, biased weightings produce faulty measurements of this aspect of quality of life.

Local residents also learn to value special features of their communities that may not be readily visible to outsiders. For example, in the Austin case, one swimming area three miles from the center of town, known as Barton Springs, has assumed disproportionate significance. Over 80% of Austin's citizens³ believe Barton Springs is "very important to Austin's quality of life," a factor of major political significance.

Because of long-standing concern about potential pollution, local developers often refer to Barton Springs as "the sacred cow of Austin." In one view, Barton Springs might be considered a purely symbolic issue; however, the intense heat of the long Texas summer and the relative preciousness of cool water lend credence to the special value of this swimming area for local livability.

Outside observers should not assume what factors are important to the quality of life in a community. Residents in different localities can be expected to express different preferences for weighting components in their communities' quality of life. Research is much needed to test systematically for such differences among places in quality-of-life preferences.

IMPORTANCE OF LOCAL TRENDS

How do residents judge the goodness of their community's quality of life? Cutter (1985: 1-2) argues that quality of life can be defined as the difference between goals and appraisals: "The goal state is subjective, culturally biased, and based upon collective image of what a place *ought* to be. The appraisal state measures the actual environment—what *is* actually there." She maintains that measurement of actual conditions should seek both objective and subjective data. The experience of quality of life is then conceived as the gap between aspirations and actual conditions, a definition proposed also by Campbell et al. (1976).

Cutter's "collective image of what a place *ought* to be" is formed, in large part, by the shared experiences and local values of persons living in the same place. My view is that recent community history provides a shared reference, a common standard, for its citizens, and thus provides their basis for judging local quality of life. The recent history of a place and local debates over hopes and fears about the near future provide a highly salient reference for judging quality. Hence the trends in different quality-of-life aspects of the community are extremely significant.

The shared reference of recent history combines with preferences for special local features, as discussed in the preceding section, to shape community awareness of quality of life. Local political debates about government decision making focus on changes in valued features of community quality of life. Ley and Mercer (1980) provide one illustration of this process in Vancouver, and Fulton (1986) finds such concerns are raised in many places where rapid development is under way. Even within the corridors of daily municipal leadership—city hall and the chamber of commerce—there is keen interest in local trends.

Leaders wish to demonstrate improvement over time, focusing on internal performance more than external comparisons.

Concern for local improvement is apparent from everyday observation of governmental affairs, but striking confirmation was produced in a study conducted by Browning et al. (forthcoming). Public- and private-sector leaders from ten Texas cities were provided comparative data in graphic form. These data reflected aspects of quality of life and "megatrend" issues popularized by Naisbitt (1982). In a series of group interviews, leaders from each city were asked about the potential use of this information. Of greatest interest to this study is the finding that leaders in many of these cities discounted the value of the comparisons.

Although external comparisons were informative, three drawbacks were expressed by participants in the Browning interviews.⁴ First, some of the leaders felt *embarrassed* by comparisons with other cities. Their cities did not compare favorably, leading more than one leader to express displeasure about "unsolicited" or "unwarranted" studies. Second, the leaders often expressed doubt about the *suitability* of the comparison cities against which their area was judged. Even if all cities were in Texas, some were larger or had much different economic bases. The leaders claimed such mismatched comparisons were less informative (and caused potential embarrassment). The third reservation expressed was leaders' preference for data on *internal trends*. Even the mayor of Austin, whose city compared very favorably to the others, emphasized his belief that local leaders were responsible for changes within their own municipal boundaries, and that leaders should carefully monitor their own cities' progress, paying special attention to the values and goals of the citizens.

RECOGNIZING LOCAL VIEWS ON QUALITY OF LIFE

Placing greater emphasis on local observation of quality of life may lead to enhanced local credibility of the research findings for two reasons. First, as Lindblom and Cohen (1979) argue, professional research must compete with an entrenched body of "ordinary knowledge" (derived from common sense, casual empiricism, or thoughtful speculation). So entrenched is ordinary knowledge that professional social inquiry must relate to the "mountain of ordinary knowledge which it cannot replace but only reshape here and there" (Lindblom and Cohen, 1979: 17). Quality of life is a prime case in which citizens and leaders possess ordinary knowledge that must be addressed if the professional research is to be accepted and used.

Second, politicization of quality-of-life issues creates an added burden for community researchers. Locally authoritative research on quality of life must be defensible not only among a peer group of scholars, but, more important, among a set of potentially hostile political protagonists. Thus it is essential that measurements be grounded in local political reality and carefully include major-interest-group views and a politically balanced range of issues. This also enhances opportunities for resolving local disputes regarding quality of life. One rule of successful negotiations espoused by Fisher and Ury (1981) is that opponents will not listen to opposing views until they see evidence their own views have been heard as well. Comprehensive measurement—guided by local views—thus facilitates understanding by competing viewholders and increases local acceptability of the research.

LOCAL MEASUREMENT OF QUALITY OF LIFE

An alternative approach to measuring quality of life is needed to enhance the local accuracy of quality-of-life assessments. This method may not replace standardized comparisons for the purposes they serve well, but would provide an alternative source of knowledge about quality of life that would have important value for local planning and for scholars interested in what constitutes quality of life in communities. Close attention to the needs of one city—Austin, Texas—has led to development of a "community-trend method" of quality-of-life research.⁵ The major assumption underlying the method is that quality of life must be uniquely defined and measured for the specific community. The remainder of this article describes the method and summarizes the results obtained in the case of Austin. Where appropriate, these results are qualified with reference to certain unique features of the local context.

OUTLINE OF THE COMMUNITY-TREND METHOD

Community-oriented research should collect both objective and subjective data, selected for their relevance within a local, political framework. The goal is to measure quality of life in a manner sensitive to competing, major-interest-group views in the community. The re-

searcher does not need to choose among the alternative views; instead, comprehensive measurement of quality of life requires only that indicators be selected to cover a politically balanced range of issues. The combination of objective indicators and subjective assessments provides a rich measurement of a community's quality of life.

In the first stage of the Austin project, indicators for measurement were identified by reviewing the professional literature on quality of life and by consulting with leaders from a range of different interest groups.⁶ Consulting with these competing groups provided the necessary grounding in local political reality without subjugating the study to the views of a single interest group. The study facilitated dialogue over quality of life by giving clear recognition to each of the competing views.⁷ A total of seventeen different factors were identified (listed below), some of which could be readily quantified with objective data and all of which could be addressed with opinion data.

With the indicators selected, the next phase of research was to collect and process the objective data. The major problem is how to standardize data that are expressed in so many different units. Standardization is required if different factors are to be compared side by side, or possibly combined into a summary index. The authors of *Places Rated Almanac* solved this problem by expressing each factor in terms of points that are awarded according to different formulae for each factor. Often these point awards seem highly arbitrary. A major advantage of the alternative community-trend method is that trends in each factor can be standardized to a common scale through their transformation to ratios relative to their base-year value. The results of this trend analysis are reported in a following section.

The third stage of the community-trend analysis entailed a survey of citizen opinions. In the Austin case, 3,040 questionnaires were mailed to a random sample of registered voters.⁸ Using Dillman's (1978) "total design method," a net return rate of 52% was obtained. This was considered very successful in view of the questionnaire length (105 items) and the time of year (July/August).⁹ Two major goals were achieved through the survey. First, knowing that the objective indicators were imperfectly constructed,¹⁰ and being uncertain that residents' *experience* of quality was adequately represented, it was helpful to learn residents' direct evaluations by asking citizens to estimate the direction of change for Austin's overall quality of life and for each individual factor.¹¹ A second goal was to learn the relative importance residents ascribed to different factors. From the consultation of local leaders, different views had been identified, but not assigned any order of

priority. Direct input from the citizenry was required for a referendum on quality of life.

The final stage of research was to write a series of reports for community consumption.¹² Quality of life has been a highly charged political issue in Austin, as in many communities that pride their livability. The university project was presented as an authoritative and unbiased attempt at quantifying issues of urgent local significance. The intent of sharing the results with the community was to provide a shared model to guide discussions about the local quality of life.

EVIDENCE OF AUSTIN'S QUALITY OF LIFE

The Austin research produced a great deal of information, only parts of which can be summarized here. Yet this illustrates a major deficiency of most quality-of-life studies: The reader is overloaded with information. One explanation for combining data into a single summary ranking is to make the data intelligible to the reader, but this may be an overreduction of content. Thus a different strategy was adopted for condensing information: As many data as the reader can absorb are shown in a single page. Graphic displays facilitate this presentation, allowing readers the opportunity to draw their own assessments from the data.

Objective Trend Measurements

The initial broad set of factors was reduced to twelve major factors that could be quantified. The emphasis upon trends imposes the requirement that comparable data must be available for earlier years. Old phone books and old newspapers were used creatively to obtain such data. (For details about the methods used for measuring quality trends, see Myers, 1984a.) Figure 1 shows the summary of indicator trends that was developed in the first part of the Austin project. This single-page summary was superior to either presenting an encyclopedia of facts or combining the different indicators in one overall index. The summary provides the viewer a profile of changes in Austin's quality of life.

The pattern of trends in Figure 1 reflects Austin's change from small town to a middle-sized city. (By 1985 the metropolitan area's population had reached over 650,000.) The trend data show small-town features (such as low traffic, low housing costs, or pure water) deteriorating, whereas at the same time big-city amenities (such as jobs, income,

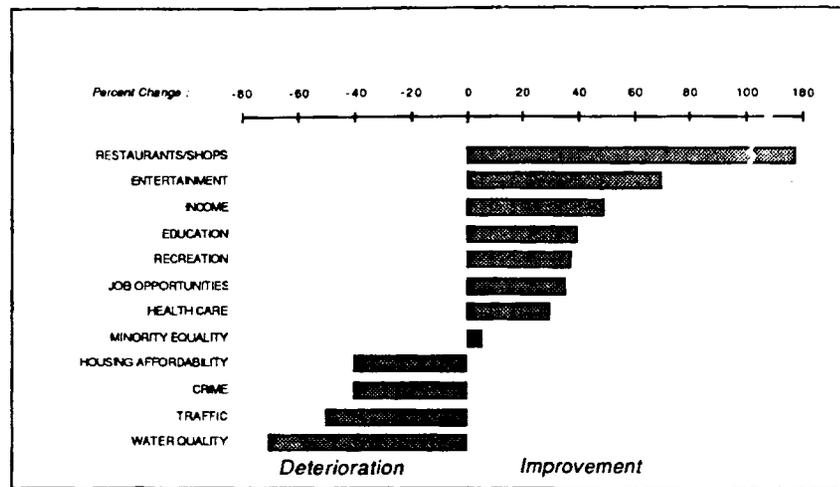


Figure 1: Overview of Factor Trends in Austin's Quality of Life: 1970 to 1983

shopping, and restaurants) are improving. Needless to say, different people would probably evaluate this pattern of change in different ways.

To conclude from Figure 1 whether Austin's quality of life was getting better or worse would have necessitated making a value judgment about the relative importance of different factors. Such judgment was avoided. Moreover, the accurate measurement of all the factors was uncertain. The only conclusion reached was that Austin's quality of life was changing.

Subjective Trend Measurements

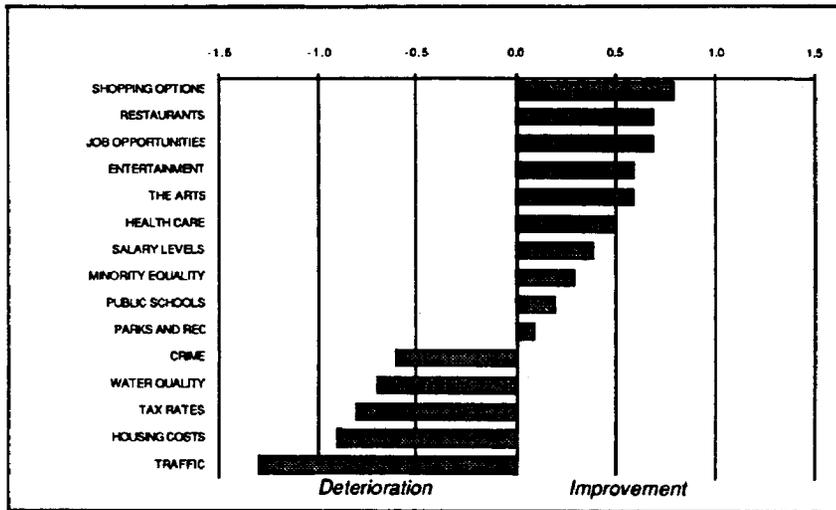
To learn more about the actual change in Austin's quality of life, the citizens' assessments were needed. As described earlier, citizens were asked to judge whether the overall quality of life and its components were getting better or worse. The conclusion was that 55.6% perceived a deterioration, whereas 29.4% felt Austin's quality of life was getting better. (The rest perceived no change.) Business leaders seeking to promote high-tech economic growth were interested that citizens with advanced degrees were twice as likely as people without a high school diploma to judge the local quality of life as declining (71.0% versus 35.6%).¹³

The survey was designed to probe beneath the overall quality-of-life judgment in search of the factors most important for shaping these overall assessments. Insight into the ingredients of a changing quality of life could prove especially valuable to future planning. A key set of questions explored residents' perceptions of the trend in different aspects of the community's quality of life.¹⁴ With the data reported in Figure 2, citizens' perceptions of change can be compared with the change measured by objective indicators in Figure 1. Given the compromises forced by data limitations for objective trend measurement, the perceived factor changes are remarkably similar in relative magnitude and direction to the objectively measured changes.

A majority of both the objective and subjective indicators of quality-of-life change reveal a positive increase in Austin's quality of life, and yet only a minority of citizens perceive an overall improvement in the community's quality of life. It is possible that measurements of some important factors depressing the community's quality of life were neglected; however, the initial interviews with community leaders should have minimized the risk of omitting significant factors. The other possibility is that some of the negative trends in the community's quality of life weigh much more heavily in the overall assessment of quality of life.

A direct view of citizens' priorities about the community quality of life is gained through a question asking citizens to weight the importance of different elements.¹⁵ The results from this question are summarized in Figure 3. Although many assume that quality of life implies amenities, such amenities as the arts, entertainment, and restaurants rank near the bottom in importance. Instead, basic factors in urban life rank near the top: crime, jobs, cost of living, traffic, and water quality. These direct statements indicate that citizens attach a heavy weight to the negative trends observed for crime, water quality, traffic, housing costs, and taxes. Much lighter weight is attached to some of the urban amenities improving in Austin. These relative priorities help to explain why the majority of citizens perceive a declining overall quality of life. Note that Pierce's (1985) sample of New Yorkers also placed the arts at the bottom in importance, but rated climate more highly.

Some of the most important factors discovered in Austin are not measured by the *Places Rated Almanac*. In particular, data are unavailable for comparing traffic levels among places, so no comparative study has been able to address this key issue adequately in Austin and perhaps most other growing areas (Pierce and Guskind, 1986). Water quality is also poorly covered in the *Places Rated Almanac*



NOTE: Maximum change is plus or minus 2.

Figure 2: Average Perception of Factor Trends

rankings, and the unique attraction of Barton Springs goes unnoticed. Although water quality might not be emphasized as highly in other cities, it is clear that a second key factor is missing from *Places Rated Almanac's* assessment of Austin's quality of life.

MEASURING QUALITY OF LIFE BY THE COMMUNITY-TREND METHOD

Measurement of trends in quality of life directs attention to ongoing processes of change. These processes are of keen interest to local citizens, and they form the context within which decision makers can address improvements in the community's quality of life. A focus on trends also underscores the shared interest of residents and business leaders in promoting the future quality of life of the community. In contrast, reliance upon comparisons among places directs attention only to the recent quality of life of the community.

Scholarly interest in quality of life may benefit from the proposed community-trend method of research. Much closer attention should be paid to the match between citizen preferences and community attractions in different localities. In the case of the *Places Rated Almanac's*

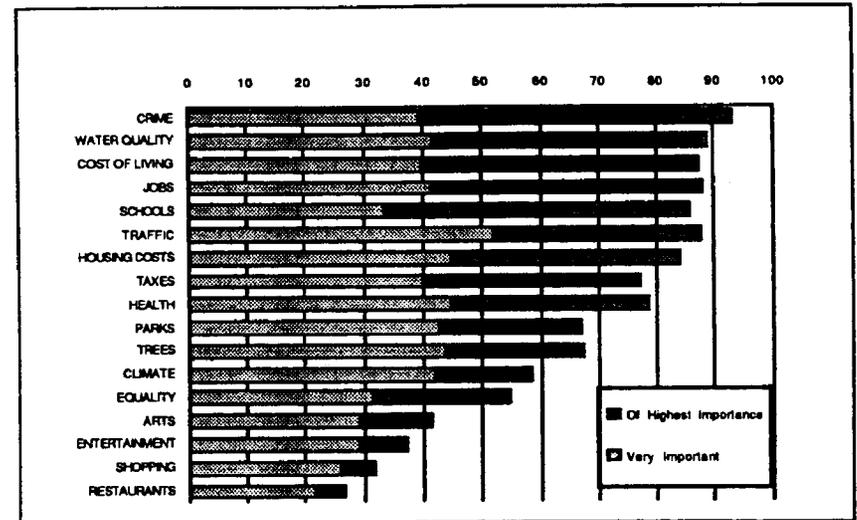


Figure 3: Percentage Valuing Each Factor

rating of Austin's quality of life, three substantial errors are noted: (1) Preferences for the local climate have been seriously misjudged; (2) the importance of water quality, including Barton Springs, is overlooked; and (3) the importance of traffic congestion has been slighted. Similar local errors may be found in other places. In general, quality of life deserves to be studied more as a local phenomenon and less as a standardized abstraction. Disregarding the rich social and political texture of this subject trivializes issues that are of compelling concern to many people.

Much academic criticism has been directed toward the lack of subjective data on citizen perceptions and preferences in comparative studies on quality of life. Milbrath (1979) also has called for measurements designed for greater policy relevance. The community-trend method responds to these criticisms and produces potentially more accurate, and more relevant, measurements of the local quality of life.

NOTES

1. Funded by the National Science Foundation and the U.S. Department of Housing and Urban Development, the earliest study was performed by the Urban Institute in

Washington, D.C., and later expanded to a dozen other large cities (Flax, 1972). The Urban Observatory program of the early 1970s also undertook measurements of individual cities, the best example of which is San Diego (Ontell, 1975). The U.S. Environmental Protection Agency (EPA) also began to fund major research about measuring the quality of life of urban areas. The EPA's support of work by the Midwest Research Institute produced the most thorough study of comparative urban indicators during the 1970s (Liu, 1974).

2. Details of this survey are described in Myers (1984b) and a later section of this article.

3. See note 2.

4. I am grateful to Dr. Browning for providing me a set of the interview tapes.

5. The method evolved through a continuing seminar I conducted titled "Measuring Quality of Life and Urban Development." Funding from the University of Texas was of great importance for carrying out the citizen survey. Subsequently, the method was further elaborated through research carried out by the Austin Chamber of Commerce. The Austin Chamber of Commerce was the first in the country to establish a formal Quality of Life Division, headed by a vice president for quality of life. Originally focusing on a miscellaneous set of community improvement activities, the Chamber established a committee in September 1985 to explore systematically the trends in the community's quality of life (Hazelton, 1985).

6. More detailed description of the research method is provided in Myers (1984a).

7. The interviewed business leaders stressed the importance of rising income for quality of life. The development representative stressed income trends and affordable housing. Environmental leaders place special emphasis on water quality, whereas the neighborhood leader stressed traffic, and the minority city councilman stressed jobs and equality.

8. Registered voters represent approximately 85% of Austin's adult population, underrepresenting poorly educated citizens and newcomers to the city. This bias was acceptable for this project because registered voters were the citizens most likely to participate in major political decisions shaping Austin's future course. East-side minority neighborhoods were sampled at twice the citywide fraction because lower response rates were foreseen for those neighborhoods and an adequate final sample of both blacks and Hispanics was desired. "Extra" Anglo voters captured in the double sample were screened out by weighting Anglo responses 0.5 in those neighborhoods.

9. Mail surveys have been maligned in the past for low response rates, but Dillman (1978) presents evidence that mail response rates can be boosted closer to the range of telephone responses (which typically are in the 70%-80% range). Erdos (1976: 144) asserts that the lower response threshold for survey reliability is 50%, unless it can be shown that the nonrespondents do not differ substantially from the respondents. The Austin survey exceeded the 50% threshold. Moreover, the respondents likely were biased in a manner similar to voter turnout on important local elections (better-educated, longer-time residents). Therefore, the sample of respondents adequately represents the intended population of voting citizens.

10. Problems with limited availability of suitable data plague all indicator studies. The Austin study bore the special burden of collecting comparable data for not only the present but also the past. Growing traffic congestion was underestimated, for example, because traffic counts were collected in earlier periods only for older portions of the city, not for the more rapidly congesting fringe areas.

11. The common scale for these questions was as follows: (1) getting much better, (2) getting somewhat better, (3) staying the same, (4) getting somewhat worse, or (5) getting much worse.

12. "Quality of Life: Austin Trends 1970-1990," June 1984; "Sliding Down the Ladder: Citizens' Views of Austin's Quality of Life," November 1984; "Priorities in Austin's Quality of Life: The Evidence from the Citizens," September 1985.

13. Further survey findings pertinent to economic development are presented in Myers (1987). Of particular interest is the finding that higher-skilled residents, including those identified as high-tech employees, voice a substantially greater expectation of leaving Austin in the near future if they perceive a negative trend in the community's quality of life.

14. See question wording in note 11.

15. The wording of the question was as follows: "Not all factors are equally important in forming a city's quality of life: some have great importance (either helping or hurting) and others have less importance. In general, how important do you think are the factors listed below for affecting a city's quality of life? . . . Please rate each of the following factors by circling its degree of general importance for the quality of life in a city." Respondents selected from a 5-point scale of importance, on which 5 = highest importance, 4 = very important, 3 = somewhat important, 2 = slightly important, and 1 = not important.

REFERENCES

- ANDREWS, F. M. and S. B. WITHEY (1976) *Social Indicators of Well-Being*. New York: Plenum.
- BOWMAN, T. F., G. A. GIULANI, and M. R. MINGE (1981) *Finding Your Best Place to Live in America*. New York: Warner Books.
- BOYER, R. and D. SAVAGEAU (1985) *Places Rated Almanac: Your Guide to Finding the Best Places to Live in America*. New York: Rand McNally.
- BROWNING, L. D., E. J. BLOOM, and M. WILSON (forthcoming) "A grounded theory analysis of municipal decision makers' processing of quantitative information." *Knowledge*.
- CAMPBELL, A., P. E. CONVERSE, and W. L. RODGERS (1976) *The Quality of American Life: Perceptions, Evaluations and Satisfaction*. New York: Russell Sage.
- CONWAY, H. M. and L. L. LISTON (1981) *The Good Life Index*. Atlanta: Conway.
- CUTTER, S. (1985) *Rating Places: A Geographer's View on Quality of Life*. Washington, DC: Association of American Geographers.
- DILLMAN, D. (1978) *Mail and Telephone Surveys: The Total Design Method*. New York: John Wiley.
- ERDOS, P. L. (1976) *Professional Mail Surveys*. New York: McGraw-Hill.
- FISHER, R. and W. URY (1981) *Getting to Yes: Negotiating Agreement Without Giving In*. Boston: Houghton Mifflin.
- FLAX, M. J. (1972) *A Study in Comparative Indicators: Conditions in 18 Large Metropolitan Areas*. Washington, DC: Urban Institute.
- FULTON, W. (1986) "Silicon strips." *Planning* 52 (May): 7-12.

- HAZELTON, J. (1985) "Quality of life indicators for Austin." Reported by the Quality of Life Advisory Committee, Austin Chamber of Commerce. (mimeo)
- LANDIS, J. and D. SAWICKI (forthcoming) "A planner's guide to The Places Rated Almanac." J. of the Amer. Planning Assn.
- LEY, D. and J. MERCER (1980) "Locational conflict and the politics of consumption." *Economic Geography* (April): 89-109.
- LINDBLOM, C. E. and D. K. COHEN (1979) *Usable Knowledge: Social Science and Social Problem Solving*. New Haven, CT: Yale Univ. Press.
- LIU, B. (1974) *Quality of Life Indicators in U.S. Metropolitan Areas, 1970*. Washington, DC: Environmental Protection Agency.
- LIU, B. (1975) "Differential net migration rates and quality of life." *J. of Economics and Statistics* 51 (August): 329-337.
- LOFTUS, G. R. (1985) "Say it ain't Pittsburgh." *Psychology Today* (June): 8-10.
- LOGAN, J. R. (1978) "Growth, politics and the stratification of places." *Amer. J. of Sociology* 84 (September): 404-416.
- MARLIN, J. T. and J. S. AVERY (1983) *The Book of American City Rankings*. New York: Facts on File.
- MILBRATH, L. W. (1979) "Policy relevant quality of life research." *Annals of the Amer. Academy of Pol. and Social Sci.* 444 (July): 32-45.
- MOLOTCH, H. L. (1967) "Toward a more human human ecology: an urban research strategy." *Land Economics* 43 (August): 336-341.
- MOLOTCH, H. L. (1976) "The city as a growth machine: toward a political economy of place." *Amer. J. of Sociology* 82 (September): 309-332.
- MYERS, D. (1984a) "Quality of life: Austin trends 1970-1990." University of Texas at Austin. (mimeo)
- MYERS, D. (1984b) "Sliding down the ladder: citizen views of Austin's quality of life." University of Texas at Austin. (mimeo)
- MYERS, D. (1985) "Priorities in Austin's quality of life: the evidence from the citizens." University of Texas at Austin. (mimeo)
- MYERS, D. (1987) "Internal monitoring of quality of life for economic development." *Economic Development Q.* 1, 3.
- NAISBITT, J. (1982) *Megatrends: Ten New Directions Transforming Our Lives*. New York: Basic Books.
- ONTELL, R. (1975) *The Quality of Life in Eight American Cities: Selected Indicators of Urban Conditions and Trends* (final report to the Urban Observatory Program, National League of Cities). Washington, DC: National Technical Information Center.
- PIERCE, N. and R. GUSKIND (1986) "The mid-Atlantic's suburban growth boom: at what cost?" *Bell Atlantic Q.* 3 (Spring): 9-18.
- PIERCE, R. M. (1985) "Rating America's metropolitan areas." *Amer. Demographics* (July): 20-25.
- TIEBOUT, C. M. (1956) "The pure theory of local government expenditures." *J. of Pol. Economy* 64: 416-424.
- WISH, N. B. (1986a) "Are we really measuring the quality of life?" *Amer. J. of Economics and Sociology* 45 (January): 93-99.
- WISH, N. B. (1986b) "Some issues about the 'quality' of Sunbelt/Frostbelt life" *Amer. J. of Economics and Sociology* 45 (July): 343-357.

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