

## Improving Neighborhood Quality: A Hierarchy of Needs

Michael R. Greenberg  
*Rutgers University*

### *Abstract*

A sample of 306 residents of New Jersey stratified by type of neighborhood was gathered in order to measure the association of residents' ratings of neighborhood quality with neighborhood attributes and residents' characteristics. Poor neighborhood quality was strongly associated with crime/vandalism and physical decay, as well as with mistrust of authority, negative emotions, pessimism, and a lack of sense of mastery of the environment.

The policy implications of these findings are important. First, improving schools, controlling locally unwanted land uses, and improving other neighborhood conditions will help improve neighborhood quality only if crime and blight are controlled. Second, many residents of poor and fair quality neighborhoods mistrust authority, including the local officials and potential investors who will spearhead neighborhood redevelopment. This destructive form of mistrust must be addressed.

**Keywords:** Neighborhood; Crime; Quality

### **Introduction**

I enjoy reading *Housing Policy Debate* because of its articles about housing as well as its less frequent but valuable presentations about drug-related crime, education, infrastructure, and other factors that influence the quality of neighborhoods. Yet the 1997 neighborhood issue (volume 8, issue 4) left me unsatisfied because it did not address priorities in neighborhood redevelopment. That is, after reading the issue, I could not say which actions, if any, were needed before others would have a chance to succeed. Is it necessary to stop crime first? Or is good housing a prerequisite? Can a good local school change the quality of a neighborhood? Are all of these factors equally important?

The answers to these questions of priority can come from interviewing city officials, realtors, bankers, and other experts. The resident public is a second source of answers. In this article, I use a recently collected sample of 306 residents of New Jersey, along with previous survey results, to identify factors that residents say are highest

priority and to argue that these must be addressed to restore the quality of distressed neighborhoods.

## Previous Research

Surveys and real estate transactions tell us a great deal about what people like about neighborhoods (see Clay and Hollister 1983 for a still-relevant summary). They want neighborhoods that are safe, clean, and stable. People want good schools, recreational facilities, their friends, and others like them nearby. They appreciate convenient shopping and access to other services. These generalizations, of course, do not do justice to the complex set of factors that contribute to the public's perceptions of their neighborhoods and the rich literature that documents those factors.

A simple way of examining the public's perception of their neighborhoods is to divide explanatory factors into attributes of the neighborhood and characteristics of the people. Neighborhood attributes begin with problems. Assault, vandalism, uncontrolled animals, and unfriendly neighbors head the list of problems. An unsafe feeling—whether it is due to the presence of drug pushers, vandals, uncontrolled dogs and cats, or hostile neighbors—repeatedly has been shown to contribute to neighborhood distress. Books by Harries (1992), Rose and McClain (1990), and Rosenberg and Fenley (1991) provide considerable detail on the destructive capacity of crime to people and the places where they live. Roper surveys from 1975 into the 1990s have asked the American public to prioritize 18 problems for government action. Baxter (1990), for example, reports that an average of 80 percent of respondents rated crime as a high priority in these surveys; in fact, crime has been rated the highest priority in these opinion polls.

Physical decay stands alongside unsafe conditions as an obvious cause of a low neighborhood quality rating. Abandoned factories and businesses, occupied buildings in poor or dangerous condition, torn-up streets and decaying sidewalks, inadequate street lighting, and litter and trash all are symbols of neighborhood decay. Sanoff (1975) argues that decayed neighborhoods send a psychological message of death to residents.

Gallagher (1993) links crime and blight. Blight, she asserts, leads people to feel that they have lost control. Blighted areas frighten people and send them—like an army in retreat—in search of places that they can defend against criminal activity. Lewis, Lowenthal, and Tuan (1973, 1, 4) conclude: “To live in a blighted environment is dispiriting, demeaning, and profoundly dehumanizing. Ugliness spreads, . . . people flee before it, leaving wasteland behind them.”

Ross and Mirowsky (1999) developed a psychometric scale that measures neighborhood order and disorder. All of the survey items measure either unsafe conditions or physical decay. Using an Illinois data set, they report a correlation of  $r = 0.777$  between the unsafe condition set and the physical decay ones.

If crime and physical decay are standard factors that should help explain residents' low ratings of neighborhood quality, then locally unwanted land uses (LULUs) also have become candidates for neighborhood killers. Public trust of science has declined in the wake of massive oil spills, nuclear plant accidents, and the long litany of names that bring dread and fear—Bhopal, Chernobyl, Love Canal, Prince William Sound, Seveso, Three Mile Island, and Times Beach (Flynn et al. 1992; Piller 1991). Residents respond to proposals for hazardous waste sites, incinerators, and other waste management facilities with a NIMBY (not in my backyard) attitude and other slogans and actions. Kunreuther et al. (1990) found that most residents of Nevada would not accept a high-level nuclear waste repository in their state, even if they received an annual tax rebate of \$5,000 for 20 years. When these facilities are proposed for places with a disproportionate share of African-American, Native American, and Latino residents, environmental injustice often is asserted and used as a basis to oppose the facilities (Been 1994; U.S. Environmental Protection Agency 1992; Zimmerman 1994). Citizen plaintiffs in Chester, PA, brought suit under Title VI of the Civil Rights Act of 1964 to stop the location of a waste management facility, and won legal standing for the suit to move forward in the courts. The U.S. Environmental Protection Agency is using Title VI to consider permits for waste management and industrial facilities that emit waste products.

While NIMBYism most often is associated with waste management facilities, it is also a common reaction to other proposed LULUs, including industrial complexes, superhighways, utility towers, sewerage treatment facilities, airports and their extensions, and other massive entities that dominate the neighborhood landscape. For example, remarking about the destructive capacity of major highways, Colin Ward (1989, 24) noted: "In retrospect, we would cynically conclude that the more fortunate cities had an engineer who was lazy, close to retirement, and addicted to golf." Kasperson et al. (1988) demonstrated that so much concern exists about technological hazards as LULUs that their risk has become amplified in the minds of the public. In short, it would not be a shock to find that massive LULUs rival crime and blight as correlates of poor neighborhood quality ratings.

Good schools, parks, libraries, religious entities, and community places where friends and businesspeople meet are amenities and

should attract people to neighborhoods. Conversely, their absence can be a smudge on a neighborhood (Karsarda and Ting 1997; Kozol 1991, Picus 1996; Wolch 1997). The presence of these facilities supports neighborliness and builds social capital. David Ward (1989) described how 19th century immigrants joined together to create a sense of community that was linked to jobs and services and served as a way to combat discrimination. (See also Gans 1962; Jacobs 1961.) The building and maintaining of social capital is supported by an attractive environment (Bothwell, Gindroz, and Lang 1998). Detwyler and Marcus (1972) identify parks, cemeteries, greenbelts, riverbanks, and other green areas as having therapeutic value. Looking at the settlement of the Boston area, Warner (1978) asserts that trees are part of the American democratic image.

Some amenities, notably police and fire protection and garbage collection services, are essential to neighborhood survival. For example, Wallace (1981, 1988, 1989) argued that New York City's administration deliberately cut back fire, police, and sanitation services in order to cause crime and severe blight to undermine neighborhoods in parts of New York City, especially the South Bronx, to the point where they would be available to developers at almost no cost.

Not everyone living in a given neighborhood feels the same way about it. Personal attributes clearly are involved in the rating of neighborhood quality. A large literature examines the relationship among age, gender, socioeconomic status, race/ethnicity, various other demographic characteristics, and the geography of neighborhoods and preferences for homogeneous and stable neighborhoods. Going back to the Chicago school of human ecology, demographic characteristics, especially race/ethnicity and socioeconomic status, have been offered as reasons why neighborhoods go through cycles of invasion and succession. For example, reporting on a study of four metropolitan regions, Farley, Fielding, and Krysan (1997) showed that people, especially whites, prefer to live in racially homogeneous neighborhoods. Whites leave once they feel uncomfortable with the racial balance of their neighborhoods; they also try to protect their neighborhoods against invasion (Farley 1996; Lang and Danielsen 1997; Massey and Denton 1993). While a pattern of middle-income white Americans leaving for the suburbs dominates in the literature, Lauria's (1998) case study of New Orleans showed that so-called white flight is not necessarily the only reason for neighborhood change. He found that depressed oil revenues in New Orleans undermined the incomes of many whites, leading them to sell their homes at lower prices and opening the way for African-American movement into formerly white areas. Lauria's study emphasizes the larger role of the national and international political economy in setting conditions for neighborhood change and quality (Harvey 1989).

Previous research clearly demonstrates that perceived neighborhood change is eventful. Campbell, Converse, and Rodgers (1976) found that perception of neighborhood quality typically changes faster than work, family, and other changes that affect people's lives. While some people experience change as positive, others view it as unacceptable, leading to psychological reactions of grief and mourning similar to the death of a loved one (Aitken 1990; Folkman and Lazarus 1988; Gallagher 1993).

Previous neighborhood experiences confound present ones and help explain why two people of the same race, income, and gender view a neighborhood differently. The resident who previously lived in a treeless, crime-filled neighborhood is likely to react positively to moving into a neighborhood with a small park where her children can play in the grass, surrounded by bushes and a few trees, without the threat of crime. Another woman with similar demographic characteristics, but who moved into this neighborhood from her wooded suburban dream home, may perceive the same park and quiet neighborhood less favorably because they are not as attractive as her old neighborhood.

Personality, without doubt, is the most untested factor with regard to neighborhood quality. Personality is composed of mental and physical activities and attributes that lead to habitual patterns and behaviors. Measures of personality that are likely to influence perception of neighborhood quality are dispositional optimism, mastery, coping mechanisms, and the intertwining of these with trust of authority and propensity to engage in civic activity. Dispositional optimists act to achieve beneficial outcomes, even in the face of difficult circumstances (Scheier and Carver 1987). Widely used in the public health literature, optimism/pessimism measures have been associated with better responses to postpartum depression, coronary bypass surgery, cancer, and alcoholism. Likewise, people who have a strong sense of mastery are more likely to cope better with difficult conditions (Lazarus 1991). By analogy from public health to neighborhood health, it follows that people who are optimists, tend to have a greater sense of efficacy, and have better coping skills would be engaged in fighting to improve neighborhood quality. Regarding environmental hazards, the literature suggests that optimists may understate risk (Weinstein 1984). Whether this extends to a bias toward a more positive rating of neighborhood quality is debatable. That is, we do not know if an optimistic person is more likely to rate her neighborhood as of a higher quality than her pessimistic neighbor.

Trust is a key issue in neighborhood quality because of its relationship to social capital. Putnam (1996, 1998) observes that civic en-

agement has declined primarily as a result of increased television viewing, and that trust is required to reestablish social and civic engagement. Ladd (1996) finds that the data do not show the erosion of social capital. In a national study, the Pew Research Center for the People and the Press (1998) observed that trust has experienced a long-term decline, but that it was higher in 1998 than in 1994. In addition, the Pew Research Center reported that trust has changed in response to public perception of the moral fiber and performance of national leadership. In a study of more than 2,500 residents of metropolitan Philadelphia, the Pew Research Center (1999) found that distrust of government was high, but that civic engagement was strong. In other words, moderate mistrust of authority was not a hindrance to engagement. The study also reported that whites were more trusting than nonwhites, older people were more trusting than younger ones, better educated respondents more trusting than less formally educated people, and notably, residents of self-identified stressed neighborhoods were less trusting than those who resided in higher quality ones.

The previous research has had two major limitations. There is relatively little specific literature on physically blighted and dangerous neighborhoods. This observation does not imply that residents of stressed neighborhoods have different preferences than their suburban middle-class and rural counterparts. It does mean that we do not know if they do, or how their preferences relate to neighborhood quality. For example, are people more concerned about drug-related crime or about the odors from a nearby sewage treatment plant? Are they more distressed by the major highway that carries thousands of commuters within half a mile of their neighborhood or by the abandoned, littered lot a block away? It is important that residents of stressed neighborhoods be asked these questions because only they live with such hazards. In contrast, most suburban Americans' contact with these hazards is on a television screen or during an occasional trip.

A second and more important limitation is the absence of studies that include a full spectrum of neighborhood and resident characteristics as described above, especially personality measures and environmental LULUs. In 1991, recognizing the limitations of prior surveys, my colleagues and I began to collect data from neighborhoods with or near hazardous waste sites, incinerators, and other locally unwanted land uses. We also surveyed neighborhoods that had a reputation for drug-related crime and abandoned factories, businesses, and housing. In addition, we surveyed residents of affluent and upper-middle-income neighborhoods for context. As of April 1999, we had collected more than 3,500 valid surveys (Greenberg 1998; Greenberg and Schneider 1996, 1997).

The five major findings of those surveys are the following:

1. Crime and physical deterioration are the most critical factors associated with poor neighborhood quality. When both crime and serious blight are present, a neighborhood is rated as poor or fair quality, irrespective of other characteristics. I believe that these are neighborhood equivalents of Abraham Maslow's (1968) basic needs for human self-actualization, which include safety and security, belonging to a group and love, and self-respect and esteem. In other words, feeling safe and seeing a neighborhood without obvious physical decay are prerequisites for good or excellent neighborhood quality ratings.
2. Bothersome industrial and commercial developments—LULUs—lower neighborhood quality if residents perceive that these developments were imposed on them and if resultant externalities, such as odor and water pollution, are uncontrolled. However, if residents believe that the facilities are being controlled and that they contribute to the community by employing people and paying taxes, LULUs become less troublesome than crime and physical decay. For example, more respondents living in a neighborhood less than two miles away from the edge of the runway of Newark Airport in New Jersey were distressed by the frequent noise caused by jumbo jets repeatedly flying over their neighborhood than by any other problem. But relatively few wanted to leave as a result of the noise, and many noted that the local airport authority had paid to soundproof their school and was instituting new landing and takeoff routes, and that the airlines were replacing older noisy jets with new quieter ones. In contrast, they were more distressed by the physical decay of surrounding buildings and crime, and those who were distressed by blight and crime were by far the most likely to rate the neighborhood as poor quality (Greenberg and Schneider 1996). This survey result subsequently has been reinforced in interviews with community leaders (Greenberg 1999).
3. The absence of good parks, schools, mass transportation facilities, and other amenities is much less important than crime and blight in explaining neighborhood quality ratings. In some neighborhoods, the absence of good schools and/or recreational opportunities was listed as distressing. However, unless residents also perceived the existence of crime and/or blight, the neighborhood typically was labeled good or even excellent quality.
4. Residents' personality characteristics, including degree of optimism, sense of control of their personal environment, trust of local officials, and coping skills, influence how individuals view

their neighborhoods. Personality characteristics thus help explain, for example, why one resident might rate a neighborhood as fair, while a neighbor might rate it as poor.

5. Age, sex, race/ethnicity, and other standard demographic characteristics are the least useful correlates of variations in ratings of neighborhood quality. There are two reasons for this finding. One is that many of the neighborhoods studied are so segregated by race/ethnicity and economic class that any differences in individual ratings cannot be due to race/ethnicity and social class. More important, even in relatively integrated neighborhoods, when we use both personality and demographic indicators, the personality ones are much stronger correlates of both neighborhood quality rating and personal actions. My conclusion is that demographic measures are inadequate surrogates for underlying personality characteristics.

## Data and methods

### *Survey questions*

The survey instrument consisted of more than 100 close-ended items and 8 open-ended ones. These were reduced to 71 by forming scales from some questions. One of the 71 was neighborhood quality. Thirty-one were used to measure neighborhood problems, 33 to evaluate personality, and 6 to measure demographic characteristics.

*Neighborhood quality.* The original form of the neighborhood quality question was derived from the U.S. Department of Commerce's biannual American Housing Survey (AHS) (1994). Prior to 1985, the AHS asked people to rate their neighborhood as "excellent," "good," "fair," or "poor" quality. After 1985, the AHS switched to a 10-point scale, with 1 being the "worst" neighborhood and 10 the "best." After initial pilot surveys with the 10- and 4-point scales, I chose the 4-point one because some respondents, mostly elderly people and those with limited English-reading ability, had problems with the 10-point scale (which was not fully labeled). (They asked where to put "lousy," "okay," "satisfactory," and other options.) In one pilot survey, several people mentally reversed the codes as they went from reading the question to coding the answer. In fact, pilot survey respondents overwhelmingly recommended the 4-point scale as easy to use.

*Neighborhood problems.* The AHS also was the original source for the neighborhood problems questions. I asked respondents to indicate whether certain potentially bothersome conditions exist in their neighborhood. For example, I asked if abandoned houses, fac-

tories, and businesses exist. If the respondent perceives that they do exist, the question is scored 1; if not, it is scored 0. If abandoned structures exist and this bothers the respondent, then “abandoned structures” is scored with a value of 2.

The AHS does not contain a definitive list of all potentially distressing neighborhood characteristics. Beginning with the AHS format, I have added uncontrolled animals, petroleum refineries, gas tanks, hazardous waste sites, poor schools, and other possible problems. I have used the same list of problems (adjusting for specific neighborhoods with unique characteristics) in this research since 1991 and placed them in the same location on the instrument to increase comparability of results among neighborhoods. The total number of potentially distressing neighborhood problems in this survey was 30. In addition, the scores for the 30 potential problems were added to form a single “neighborhood problems” score because previous research often has shown that the sheer number of problems is perceived as more important than or at least as important as any single problem (Greenberg and Schneider 1996). The total problems score is the 31st variable.

*Personality.* I asked 52 questions about personality. One set of 17 measures trust in authority, control, and values. Scaled 1 (“strongly agree”) to 5 (“strongly disagree”), the first, for example, asks about the degree to which respondents trust experts, engineers, and regulators of technological hazards. Ten other similarly scaled questions asked to what extent respondents trust neighborhood environmental guardians in the mayor’s and state legislators’ offices; local housing inspectors, health officers, and other civil servants; developers; and the local mass media. They also asked to what extent residents wanted to control activities in their neighborhood and felt that they had control. Mixed among these were six statements about values, such as “We should make the rebuilding of our cities one of the highest priorities.” These 17 items were randomized on a single page and some were written with the scales stated in the negative sense to make sure that results were not influenced by order.

I also used the Life Orientation Test (LOT), a single scale commonly used to measure optimism/pessimism (Scheier and Carver 1987). Widely applied in public health studies to measure the likelihood of people recovering from diseases ranging from alcoholism to cancer, the LOT consists of eight statements (such as “In uncertain times, I usually expect the best”), which respondents rank along a five-point scale that ranges from “strongly disagree” (value of 0) to “strongly agree” (value of 4). (Four “filler” statements are included, to ensure that respondents do not realize the test’s purpose is to measure optimism.) The scores of the eight questions are totaled to produce a

final score that ranges from 0 (most pessimistic) to 32 (most optimistic). Studies typically report average scores of 19 to 22, and reliability scores, while not always reported, typically are between 0.7 and 0.85.

A seven-item “mastery” test was used to measure internal sense of control (Pearlin et al. 1981). Measured on a five-point Likert scale, it asks about the extent to which respondents believe that they control their lives, as opposed to having little impact on what happens to them.

I measured a propensity to engage in local neighborhood protection activities by asking respondents if they had contacted an elected official; volunteered for a civic, church, or school function; or served on a community panel during the past two years. These three measures of personality were coded as dichotomous scales (1 = engaged in activity in last two years; 0 = did not). The sum of the three scores was used. Our previous studies showed that the modal response is engagement in one of the three activities. This variable serves as a measure of part of what respondents contribute to building local social capital (Temkin and Rohe 1998). Social capital also includes informal neighboring and other social interactions, which these variables did not measure.

To explore how respondents coped with stress, I asked about their use of eight coping mechanisms, such as seeking or finding spiritual comfort and support; seeking emotional support from loved ones, friends, and professionals; trying to see the problems in a light that made them more bearable; and doing something that would divert attention from the problem (Lazarus 1991; Stone and Neale 1984). All the coping responses were measured on a five-point scale that ranged from “strongly disagree” (value 1) to “strongly agree” (value 5).

The final personality variables were word associations. Three gave respondents a chance to list up to three emotions they felt about their neighborhood. Two asked for up to two colors that they associate with their neighborhood. The first emotion was scored 3, the second 2, and the third 1. The first color was scored 2 and the second 1. These emotion and color questions were new to this research. The questions were written as open-ended items rather than as a list of specified choices in order to avoid biasing unconscious feelings (Fritz 1995).

*Demographic characteristics.* Six demographic variables were considered: age, race, length of residence in the neighborhood, homeownership, gender, and education. Length of residence was scaled into five categories: less than 6 months; 6 months to less than

2 years; 2 to less than 5 years; 5 to less than 10 years; and 10 or more years. Education was scaled into six categories: did not graduate from high school; graduated from high school; attended technical school; attended some college; graduated from college; and received an advanced degree.

### *Study area*

I used a convenience sampling method to obtain a data set disproportionately composed of respondents who reside in stressed neighborhoods in New Jersey—that is, respondents who would be more likely to rate their neighborhoods as “fair” or “poor” than residents of the state as a whole. These include respondents from Camden, Newark, and East Orange, which are among the poorest cities in this affluent state. Stratifying by neighborhood stress is necessary because only 13 percent of the residents of New Jersey rate their neighborhood quality as “poor” or “fair” quality and less than half identify even a single bothersome neighborhood problem (Greenberg and Schneider 1996; U.S. Department of Commerce 1994). To increase the possibility of finding relationships among neighborhood quality, problems, personalities, and demographics, I oversampled in cities and older suburban neighborhoods where more neighborhood problems were expected. More specifically, I wanted to have a probability of at least 99 percent that the proportion of respondents in the sample who rated their neighborhood quality poor or fair was at least 50 percent higher than the proportion for residents of New Jersey as a whole. This required more than 300 responses. Overall, while a disproportionate number of respondents were identified in stressed neighborhoods, the majority were from typical New Jersey middle-income suburbs.

Respondents were identified via face-to-face contact in the target neighborhoods. Each respondent willing to fill out the survey was asked to place it in a sealed envelope before returning it. Respondents were asked to place no identifiers on the survey instrument. To preserve confidentiality, no identifiers were recorded on the surveys. Response rates using this sampling method have ranged from slightly less than 50 percent to almost 90 percent.

## **Results**

### *Response*

Between January and April 1998, surveyors collected 323 surveys from respondents 18 years of age and older. The overall response rate was 80 percent (323 of 400). Seventeen of these were unusable because of missing data, so the total number of usable surveys was 306.

As previously noted, the sampling process was designed to obtain a sample that was weighted toward residents who rated their neighborhood as poor or fair. This goal was accomplished. Thirty-five percent rated their neighborhood quality as fair or poor, compared with only 13 percent of New Jersey residents ( $p < 0.01$ ). In addition, 59 percent of respondents were female, compared with 50 percent of New Jersey residents; 14 percent were African American, compared with 13 percent of New Jersey residents; 9 percent were Latino, compared with 9 percent of state residents; 45 percent were homeowners, compared with 65 percent of state residents; and 37 percent were college graduates, compared with 25 percent of New Jersey residents. In other words, respondents were more likely to rent their dwelling unit, more likely to be college graduates, and more likely to be female than the population of the state as a whole. Most important, respondents were more likely to reside in a neighborhood that they classified as poor or fair quality, which is what was wanted.

### *Neighborhood quality*

Eighteen percent of respondents (55) rated their neighborhood quality as excellent, and another 47 percent (144) rated theirs as good. Another 29 percent (89) classified their neighborhoods as fair and the remaining 6 percent (18) rated their neighborhoods as poor. For context, the analogous proportions for New Jersey residents were 33 percent excellent, 55 percent good, 10 percent fair, and 3 percent poor. For the United States as whole, the numbers are 34, 53, 11, and 3 percent, respectively.

### *Correlates of neighborhood quality*

*Preliminary analyses.* Before I examined the relationships, I used the Cronbach's alpha statistic to evaluate whether the optimism/pessimism and mastery questions were reliable scales. The alpha values for the optimism/pessimism and mastery questions as two separate scales were 0.79 and 0.76, respectively, a good level of reliability.

Second, to get an initial idea about the relationships between neighborhood quality and the correlates, one-way analysis of variance tests was conducted with the four-group neighborhood quality variable and each of the 70 correlates. The results are consistent with the discriminant analysis run, so I do not present them in detail. To illustrate the results, table 1 presents three ANOVA results. *P*-values reflect the one-way analysis of variance tests. In column two, the average score (maximum of 2, minimum of 0) for

abandoned houses, factories, and businesses in excellent-quality neighborhoods was 0.09, compared with 0.80 and 1.33 among respondents who rated their neighborhood quality as fair and poor, respectively. In column three, smaller optimism numbers reflect the greater pessimism of residents of poor-quality neighborhoods. The last column shows that fair-quality neighborhoods had the largest proportion of African-American residents.

The data in table 1 provide initial clues about the relationships between neighborhood quality, problems, personality, and demographic characteristics. The clues may be misleading because they do not show association among the full set of indicators. Multi-variate stepwise discriminant analysis is a systematic way of assessing a complex set of relationships. Three preliminary sets of discriminant analyses were run by category of correlate: problems, personality, and demographic characteristics. Along with the one-way analysis of variance runs, these runs permitted me to choose a smaller set of indicators to use in the final runs. The ability of an indicator to discriminate is measured by the *F*-test. The higher the *F*-value, the greater the statistical ability of the indicator to discriminate among the categories of the neighborhood quality dependent variable. In fact, 46 of the 70 indicators developed for the research were statistically significant indicators at  $p < 0.01$ . (Only one would have been expected by chance.)

*Neighborhood quality, problems, personality, and demographic characteristics.* Thirty-two variables had a correlation of at least 0.25 with one of the discriminant functions. Only the strongest correlations with each function are reported in table 2 and discussed in

*Table 1. Neighborhood Quality and Illustrative Correlates*

Neighborhood Quality	Abandoned Houses, Factories, and Businesses (0-2)	Optimism/Pessimism (0-32)	Proportion of African-American Respondents (0-1)
Excellent (N = 55)	0.09	22.9	0.09
Good (N = 144)	0.16	20.0	0.12
Fair (N = 89)	0.80	19.1	0.20
Poor (N = 18)	1.33	15.5	0.11
<i>F</i> -value	37.5	12.0	1.6
<i>p</i> -value	<0.001	<0.001	0.195

*Note:* Numbers are mean values by neighborhood quality group.

the text. Two types of data are presented in this table. One is the  $F$ -value, which indicates the ability of each variable by itself to discriminate among the categories of the neighborhood quality variable. The variables are ordered by their  $F$ -value with one of the three mathematical composite variables, called "functions," constructed by the method. Three functions are created when the original dependent variable has four categories ( $n - 1$ ). Functions are named in two ways. One is by examining the patterns of correlations between the variables and the discriminant function. The second is by determining the categories of the dependent variable most strongly identified with the function. This is judged by the average score of each of the four neighborhood quality groups with the function characteristics.

The first function of the discriminant analysis contrasts those who rated their neighborhood quality as poor or fair with those who rated it as excellent. Twenty-five variables had correlations with this function of  $\geq 0.25$ . These respondents lived in neighborhood environments that they identified as suffering from multiple problems ( $r = 0.706$ ). They were particularly bothered by litter and trash ( $r = 0.579$ ); abandoned houses, factories, and other businesses ( $r = 0.509$ ); occupied buildings in poor and dangerous condition ( $r = 0.473$ ); and poor grooming of streets and parks ( $r = 0.462$ ). These respondents also were bothered by vandalism ( $r = 0.459$ ), drug-related crime ( $r = 0.384$ ), and homeless persons/panhandling ( $r = 0.419$ ). In other words, physical decay and crime are the strongest discriminators among categories of neighborhood quality.

Another source of evidence from the survey supports this finding. Residents were asked to list the most important problem that needed to be addressed in their neighborhood. Seventy-two percent of those who rated their neighborhood quality as poor listed crime or blight. This compares with 54 percent among those who rated their neighborhood quality as fair, and only 16 percent of those who rated their neighborhood as good or excellent.

Although not all are shown in the table, six personality characteristics strongly identified with this poor or fair versus excellent neighborhood quality function. Those who rated their neighborhood quality as poor often listed anger ( $r = 0.429$ ) as an emotion and the color gray to describe the neighborhood ( $r = 0.303$ ). They expressed feelings that civil servants and workers do not work hard on behalf of their neighborhoods ( $r = -0.300$ ), that the mayor's office does not care about the neighborhood ( $r = -0.330$ ), of a lack of control over what goes on in their neighborhood ( $r = -0.296$ ), and of a lack of trust of those elected to represent them in the state legislature ( $r = -0.284$ ).

Table 2. Discriminant Analysis of Neighborhood Quality

Variable (N = 306)	F-value	Function (F)		
		F1: Poor or Fair vs. Excellent Quality	F2: Fair vs. Poor Quality	F3: Excellent vs. Good Quality
Aggregate problems in neighborhood score	71.7**	0.706		
Litter, trash problem	48.5**	0.579		
Abandoned houses, factories, and businesses problem	38.0**	0.509		
Occupied buildings in poor or dangerous condition problem	33.4**	0.473		
Vandalism problem	31.4**	0.459		
Anger, emotional response to neighborhood	27.4**	0.429		
High drug-related crime problem	23.9**	0.384	0.271	
Poor-quality schools problem	23.1**	0.353	0.370	
Mayor's office cares about neighborhood	18.4**	-0.330		0.351
Trust officials to represent neighborhood in state legislature	15.3**	-0.284		0.415
Sadness, emotional response to neighborhood	12.1**		0.338	
Optimism/pessimism	12.0**			0.419
Few recreational activities a problem	11.3**		0.417	
Mastery scale	5.1*			0.327
Science can settle differences of opinion	3.6*			0.381
Neighborhood participation	2.9		-0.318	

Note: Variables shown in the table had a correlation with a discriminant function of > 0.25 and were the strongest for each discriminant function. Canonical correlation of function 1 was 0.767 ( $p < 0.001$ ); canonical correlation of function 2 was 0.491 ( $p < 0.001$ ); canonical correlation of function 3 was 0.376 ( $p < 0.01$ ).

\* $p < 0.05$ . \*\* $p < 0.01$ .

Those who rated their neighborhood quality as excellent reported few, if any, problems with crime and blight, and were much more trusting of government officials than their counterparts. Rather than reporting anger, those who rated their neighborhoods as excellent reported the emotions joy and love. Overall, 17 of the 31 problem variables and 8 of the 33 personality variables associate ( $p < .05$ ) with this first excellent versus poor quality function. Notably, none of the demographic variables associate with this function.

The second function contrasts those who rated their neighborhood quality as fair with those who rated theirs as poor. The fair-quality group was more troubled by the absence of recreational activities ( $r=0.417$ ) and slightly more troubled by crime ( $r=0.271$ ) and poor-quality schools ( $r=0.370$ ). They disproportionately identified sadness as an emotion for their neighborhood ( $r=0.338$ ), whereas the poor-quality group, as noted in function 1, expressed anger. They also were much less engaged in neighborhood activities than their counterparts who rated their neighborhood quality as poor ( $r=-0.318$ ).

The third function was defined around five personality variables. It contrasts respondents who rated their neighborhoods as excellent with those who rated them as good. Those who rated their neighborhoods as excellent were more optimistic ( $r=0.419$ ) and enjoyed a greater feeling of mastery ( $r=0.327$ ). These respondents were more trusting of elected legislative officials ( $r=0.415$ ), science ( $r=0.381$ ), and their mayor's office ( $r=0.351$ ). Respondents who rated their neighborhoods as good tended to have the opposite responses. That is, they were less optimistic, had less of a sense of mastery and less confidence in science, and were less trusting of mayors and legislators.

The linear model derived from the stepwise discriminant analysis accurately classified 71 percent of respondents, including 91 percent of respondents (50 of 55) with an excellent-quality rating, 65 percent (94 of 144) with a good-quality neighborhood; 63 percent (56 of 89) with fair neighborhood quality, and 89 percent (16 of 18) with poor quality.

Another view of the relative importance of the problems, personality, and demographic variables as a whole was obtained by doing three discriminant analyses, each of which contained only one set of indicators. The 31 environmental problem variables accurately classified 62 percent of respondents, the 33 personality indicators classified 48 percent, and the 6 demographic indicators 32 percent. In other words, demographic variables classified barely more accurately than would have been expected by chance. This was further confirmed by examining order of entry into the stepwise discriminant analysis. Six of the first ten discriminating variables chosen by the stepwise model were problem variables and the other four were personality ones.

The statistical analysis clearly identifies the remediation of crime and physical deterioration at the top of the hierarchy of neighborhood needs, supporting the assertion that they are the equivalents to Maslow's human needs for self-actualization. But the statistical

analysis is not as clear as it could be about the role of personality, especially regarding the relationship among neighborhood quality, personality, and neighborhood action, because so many of the respondents were from good-quality neighborhoods. Four previous studies sampled heavily in neighborhoods with deteriorated housing and industrial and waste management land uses (Greenberg 1998, 1999; Greenberg and Schneider 1996, 1997). In these places, I found a small but highly active group of residents who mistrust outside authority and are prepared to fight it. In one of these neighborhoods, for example, a respondent sued the local housing authority, won in court, and is now managing a former public housing project; residents are expected to assume ownership of the remodeled project this year (Greenberg 1999). In other neighborhoods, I have interviewed residents who have fought outsiders about everything from playgrounds to factories.

The data gathered for this study suggest the existence of a similar formidable group of educated, active, and mistrusting residents. Fourteen percent (15 of 107) who rated their neighborhood as poor or fair engaged in at least two of the three neighborhood actions. These respondents were older (average age 37.4 years, compared with 29.8 for those who were less active) and had lived in the neighborhoods longer than their counterparts. These active respondents were more likely to be female (67 versus 55 percent). They were also more optimistic and had a greater sense of mastery than their less active counterparts. Notably, all 15 had attended college, and 9 of them (60 percent) had graduated, compared with 36 percent of all other respondents. While they considered their neighborhoods as of poor or fair quality, almost half thought of love as an emotion to describe their reaction to the neighborhoods and almost as many said joy. Few expressed sadness as an emotional reaction to their neighborhoods. In contrast, their less active counterparts were much less likely to express love and joy and were much more likely to use anger and sadness as emotions to describe their neighborhoods.

These responses to the control and trust questions most clearly reveal the view of outside authority. Only 4 of 15 of these active respondents felt that they had some control over what goes on in the neighborhood, and 11 of 15 wanted more control over neighborhood activities. Only 2 in 15 trusted experts, only 1 in 15 believed that the mayor really cared about the neighborhood, 3 in 15 trusted officials elected to represent them in the state legislature, and 3 in 15 believed that local housing inspectors, health officers, and other civil servants work to protect their neighborhood. This small group of active residents living in poor- or fair-quality neighborhoods was the least trusting of any subgroup in this sample.

## Conclusions and implications

There are always some surprises in field surveys. This was the first time I had asked open-ended questions using word associations for emotion and color, and I was surprised by the strength of the emotional reactions. The weakness of response to the presence of major LULUs (hazardous waste sites, incinerators, petroleum refinery, chemical plant) and neighborhood action measures as predictors also was surprising to me.

The illustrative data and the larger body of surveys gathered is incomplete in important ways. Only one study has focused on Asian-American neighborhoods (Greenberg, Schneider, and Singh 1998). The existing database also has relatively few Spanish-speaking respondents. Another shortcoming is the absence of information about whom residents rely on for honest and credible information about their neighborhood. While research shows that people generally rely on television and newspapers for much of their information, this may not be true for information about neighborhoods or for the residents of stressed neighborhoods. We need to know what sources these residents trust the most.

Another possible shortcoming is that residents' collective perceptions may not reflect reality. It can be argued that residents are overly sensitive to crime and physical decay, and less sensitive to problems that public health and planning experts would consider more dangerous, such as inadequate infrastructure and public services. Yet, we have interviewed city planners and health officers in more than a dozen neighborhoods in which we conducted detailed case studies (Greenberg and Schneider 1996) and have found a remarkable correspondence among residents' perceptions and these local experts' views of problems. Nevertheless, when the 2000 census has been completed, it would be prudent to compare community surveys such as the one presented here with the indicators provided by the census at the census block and tract level and with the viewpoints of local government officials. These comparisons not only would permit validation of resident perceptions with other data, but also would allow us to consider confounding variables such as population density, demographic change, and age of the neighborhood's housing and infrastructure.

With these few surprises and caveats noted, the results are similar to observations I have made in studies cited above. In essence, residents are telling us that a hierarchy of needs is required to achieve a neighborhood quality status of excellent or good. A neighborhood must not have crime or severe physical blight. This implies that rehabilitating existing buildings and providing new housing is critical. But at the same time, all forms of physical decay, including old

factories, warehouses, abandoned shops, and littered and torn-up streets, must be rehabilitated or neighborhood quality will not improve. Furthermore, physical rehabilitation is necessary but not sufficient. We also must control vandalism and drug-related crime.

What does this imply for other neighborhood problems? Controlling environmental contamination from operating incinerators, sewage plants, and factories; improving schools; providing recreational opportunities; and adding other public services are important, but will not succeed unless crime is halted and physical decay is stopped. People are telling us that they need these actions to make them feel that their neighborhood is not dying and that they have a future in it.

I cannot overstate the importance of this observation. Simply put, this research has led me to question my championing of comprehensive neighborhood planning that addresses the alphabet soup of every neighborhood element, from benches to water pipes, as if compulsively placing everything in the right place in the right quantity in collaboration with community leaders would satisfy people. It won't, if severe physical blight and crime are not addressed at the top of the comprehensive community initiative. This research also has led me to question targeted programs, such as brownfields redevelopment, in some locations. As the director of a newly created center in neighborhood and brownfields redevelopment, I have seen that remediating and rebuilding on brownfield sites works to improve the community when there are no accompanying crime and blight problems. When crime, blight, and contaminated brownfields exist in the same neighborhood, however, a program narrowly focused on brownfields will not spark neighborhood redevelopment unless crime and blight are explicitly addressed as part of the plan.

This research continues to show the minimal utility of standard demographic characteristics in informing us about people's ratings of their neighborhoods. In the final discriminant analysis, the first demographic characteristic did not enter until after 29 others already had been selected. Race/ethnicity, age, education, gender, and similar characteristics are at best superficial indicators of personality. At worst, regarding formulation of neighborhood policies, information about neighborhood residents' age, race/ethnicity, and education may mislead us into inappropriate and possibly discriminatory assumptions about their preferences and behaviors.

This study also highlights the importance of personality and beliefs in understanding people's ratings of their neighborhoods. The second variable selected by the stepwise method was anger, the third was optimism, the fifth was trust of the mayor's office, and the tenth was trust of science. Improving neighborhood quality requires

not only dealing with physical decay and crime; it also requires addressing residents' mistrust of authority (Flynn et al. 1992; Peters, Covello, and McCallum 1997; Pew Research Center 1998, 1999; Piller 1991; Slovic 1993). Many Americans mistrust science, technology, government officials, attorneys, the media, and most other sources of authority. The result is that many members of the public trust the opinion of friends, clergy, and other "nonexperts" far more than scientists, government officials, media, and other authorities. Survey research shows that the government needs to prove that it is committed and knowledgeable; for-profit groups need to show that they care about health and safety and are willing to share information; and nongovernmental organizations need to demonstrate their competence (Peters, Covello, and McCallum 1997).

This survey and previous studies have identified residents of stressed neighborhoods who mistrust authority, actively fight it, and want to have more control. These residents are the most active and educated people in their neighborhoods; they are the people who will build social capital. Clearly, they are not the kind of people developers want as opponents. Part of the task of neighborhood redevelopment is to increase trust among this imposing group so that it can provide meaningful, constructive input rather than active opposition. Achieving this kind of cooperation will require spending much less time on design and traditional planning activities and much more on seeking out meaningful involvement from a select group of residents who, frankly, are not likely to trust outsiders claiming to have the community's best interests at heart. Realistically, planners, developers, designers, and professors like me can expect to take our lumps and will have to prove not only that we are technically able but that we really care and are willing to share decision making with neighborhood leaders.

### *Author*

Michael Greenberg is Professor of Urban Studies and Community Health, Bloustein School, Rutgers University.

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