The Status of Low-Income Neighborhoods in the Post-Welfare Reform Environment

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The Status of Low-Income Neighborhoods in the Post-Welfare Reform Environment: Mapping the Relationship Between Poverty and Place

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ABSTRACT. It has long been recognized that children and adults living in poverty are at risk for a number of negative outcomes. As inequality in the distribution of wealth, income and opportunity has grown in the U.S. during the post-welfare reform era, impoverished children and their families have tended to become increasingly concentrated in urban low-income neighborhoods. Research evidence demonstrates that living in these neighborhoods affects family well-being in several key areas: economic and employment opportunity, health and mental health condition, crime and safety, and children's behavioral and educational outcomes. Using the neighborhood indicator approach, public and nonprofit social service agencies will be better positioned to develop a comprehensive and integrated service delivery model at the neighborhood level by using neighborhood assessment to locate services and utilize neighborhood intervention strategies. *[Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <docdelivery@ haworthpress.com> Website: <http://www.HaworthPress.com> © 2005 by The Haworth Press, Inc. All rights reserved.]*

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INTRODUCTION

It has long been recognized that children and adults living in poverty are at risk for a number of negative outcomes. Research suggests that children living in poverty are more likely to experience infant or childhood mortality, learning disabilities, adolescent pregnancy, delinquency, mental health problems, and school failure, expulsion, or drop out. Furthermore, adults who spend their childhoods in poverty are more likely than their peers to be unemployed and to have mental health and other problems (Roosa et al., 2003). As inequality in the distribution of wealth, income and opportunity has grown in the U.S., impoverished children and their families have tended to become increasingly concentrated in urban neighborhoods. As a result, there has been an explosion of research that has focused on the relationships between neighborhood characteristics and outcomes for children and families. The purpose of this paper is (1) to provide an overview of the nature of poverty in low-income neighborhoods in the U.S., (2) to present evidence on the effects of living in low-income neighborhoods, and (3) to identify the implications of these findings for neighborhood assessment, program development, and social service delivery.

Defining Neighborhood and Poverty

The term "neighborhood" typically refers to a residential geographic area. However, over the past decade researchers have become increasingly interested in defining neighborhoods in terms of the social networks of neighbor interactions and the nature of street patterns such as physical boundaries (Sampson, Morenoff, & Gannon-Rowley, 2002). By contrast, "community" usually refers to a group of people who have a common bond and shared identity beyond a shared place of residence. Communities also usually have one or more formal social institutions for achieving members' shared goals, such as schools, churches, agencies, or city government. Throughout this analysis, we use the term "neighborhood" to refer to a geographically defined residential area (Chaskin, 1997).

Social scientists have proposed different ways to measure poverty, a multidimensional concept that reflects several aspects of well-being

(Burtless & Smeeding, 2001). Over the past few decades, the U.S. government has used annual household income to track poverty over time. When a household's economic resources fall short of needs, as defined by the federal government, a household is classified as poor or in poverty. For example, in 2003, the official U.S. poverty threshold was $14,810 for a family of three with one child (U.S. Census Bureau, 2004a). However, the high cost of living in places such as California and New York City is typically not reflected in the national poverty measure. For example, while the poverty threshold was $17,463 for a family of four in 2000, the U.S. Department of Housing and Urban Development (HUD) estimated that the yearly two-bedroom fair market rent in San Francisco, California, to be $16,344, or 94 percent of the poverty threshold (PPIC, 2001).

Combining the dimensions of poverty and space, neighborhood poverty has been defined as those census tracts where more than 40 percent of the residents are classified as poor using the federal poverty standard (Jargowsky, 2003).

Poverty rates vary by racial and ethnic group as well as by geographic area over time. For example, the poverty rate among Whites declined in the 1960s and 1970s but has slowly increased since the 1980s to eight percent. The black poverty rate has consistently declined since 1959 but remains higher than that for most other groups at 24 percent. The poverty rate among Hispanics fluctuated before the 1980s but since has increased to become the second highest poverty rate among all groups at 21.8 percent in 2002. The Asian poverty rate has remained relatively stable at 10 percent; however, data suggests that some groups of Asians fare better than others (U.S. Census Bureau, 2004a). For example, the 2000 census reported that Hmong and Cambodian families had the highest individual poverty rates, 37.8 and 29.3, respectively (U.S. Census Bureau, 2004b).

Geographically speaking, of the 34.6 million people in poverty in 2002, 27 million lived in metropolitan areas (78%), including 13.8 million in inner cities (40%) and 13.3 million in the suburbs (38%). Among those living in rural areas, 7.5 million (22%) people were in poverty in 2002. A national analysis of high-poverty neighborhoods in 1990 and 2000 indicated that while the share of the poor living in high-poverty neighborhoods declined among all racial and ethnic groups, a number of older, inner-ring suburbs around major metropolitan areas experienced increases in poverty over the decade (Jargowsky, 2003).

Given the heavy reliance on the market to provide essential services such as health care, postsecondary education, and child care, money is a

crucial household resource for poor families. However, there are other important neighborhood level factors that can affect well-being by shaping opportunities and capabilities for participation in society. In their review of the literature, Ellen and Turner (1997) identified six distinct mechanisms through which neighborhood conditions may influence individual outcomes at various life stages: (1) quality of local services, (2) socialization by adults, (3) peer influences, (4) social networks, (5) exposure to crime and violence, and (6) physical distance and isolation. Their review suggests that some types of families or individuals may be more vulnerable to the influences of the neighborhood environment than others.

Low-income neighborhoods are typically characterized by high rates of unemployment, crime, adolescent delinquency, social and physical disorder, single parent households, and high levels of mobility (Sampson, 2001; Sampson, Morenoff, & Gannon-Rowley, 2002). Researchers have also documented variations in health based on neighborhood residence for a wide range of outcomes, including: birth outcomes and infant mortality, children's physical health, child development, adult physical health, overall mortality, health-related behavior, and mental health (PolicyLink, 2002).

Research in numerous cities has shown that social problems such as crime, public disorder, school dropout, high welfare usage, and child maltreatment are significantly clustered and correlated with concentrated poverty, family instability, and residential turnover (Sampson, 2001; Coulton, Korbin, Su, & Chow, 1995; Sampson, 1992). For example, comparing ecological structures for a wide range of social indicators in 1980 and 1989, Chow and Coulton (1998) found that over time negative social conditions became more interrelated with impoverishment emerging as the dominant construct. The social problems that cluster in low-income neighborhoods also tend to be correlated with developmental problems among children, school readiness and achievement, drop out rates, teenage childbearing, and emotional, behavioral, and delinquency problems, even after controlling for family characteristics such as income, parental education and family structure (Roosa et al., 2003).

While the mechanisms by which place affects residents' well-being still require further study, the research literature suggests that several types of neighborhood mechanisms may play a role, including:

1. the level or density of social ties between neighbors, the frequency of social interaction among neighbors, and patterns of neighboring;
2. the mutual trust and shared willingness to intervene for the public good;
3. the quality, quantity, and diversity of institutions in the community that address the needs of residents; and
4. the land use patterns and the distribution of daily routine activities that affect well-being (Sampson & Morenoff, 2002).

A great deal of research has been dedicated to understanding the factors that have contributed to the development of low-income neighborhoods and the concentration of social problems within these neighborhoods. Scholars have described three major transformations that took place in the post-World War II and post-1970s eras that have helped to produce these conditions: (1) economic restructuring and rising inequality; (2) metropolitanization of residential and industrial space; and (3) demographic changes that have followed changes in immigration policy from 1965 onward (O'Connor, 2001). Each of these areas is discussed next.

Spatial Concentration of Poverty and Opportunity

A major force shaping low-income neighborhoods has been the transformation of the urban economy. Beginning in the 1950s, and most rapidly since the 1970s, the U.S. economy has become more decentralized, global, and heavily reliant on finance, services, and technology than on its once larger and more powerful manufacturing base (Abramson, Tobin, & VanderGoot, 1995; Coulton, Chow, Wang, & Su, 1996; Massey & Eggers, 1993). These macroeconomic changes have fueled the concentration of poverty and joblessness in central cities where low-income minorities tend to be disproportionately located. William Julius Wilson argued that the social transformation that accompanied economic changes from the 1970s to the 1990s resulted in increased concentration of the most disadvantaged segments of the urban African American population, especially poor, female-headed families with children (Wilson, 1996). The related out-migration of middle- and upper-income African American families from the inner city has also, according to Wilson (1987), removed an important social buffer that could deflect prolonged joblessness and industrial transformation. In contrast, Massey (1996) and other authors have noted that the growing geographic concentration of affluence, predominately among Whites, suggests that so-

ciety is increasingly becoming divided, not only by socio-economic status but also by race (Stoll, Holzer, & Ihlanfeldt, 2000).

The spatial isolation of low-income neighborhoods has led to the development of two major theories about such conditions. First expressed by John Kain (1968), *spatial mismatch* theory suggests that the suburbanization of jobs and serious limitations on black residential choice have acted together to create a surplus of workers in relationship to the number of available jobs in inner-city neighborhoods where blacks are often concentrated. This situation results in joblessness, lower wages, and longer commutes for residents of low-income neighborhoods, the majority of which are ethnic minorities.

In their review of the spatial mismatch literature, Ihlanfeldt and Sjoquist (1998) concluded that the majority of the empirical findings support the spatial mismatch hypothesis. They suggest, however, that the importance of spatial mismatch may vary considerably across metropolitan areas. For example, spatial mismatch theory plays a dominant role in explaining the labor market problems of the inner city poor where high levels of housing segregation and poor transportation exist. Their review of the literature suggests that a combination of barriers keep blacks from obtaining suburban employment including a reluctance to search in white areas, greater hiring discrimination, and the inability to commute by way of public transit. The authors suggest that more research is needed to assess whether spatial mismatch applies to smaller metropolitan areas.

Another related theory that helps to explain joblessness in low-income communities is the *skills mismatch* theory. According to this theory, the macroeconomic transformation that has occurred in many American cities has left poorly educated residents of low-income neighborhoods unable to compete for knowledge-intensive, white-collar service industries (Kasarda & Ting, 1996). Scholars argue that skills mismatch and spatial mismatch create a double barrier to job access for many city residents. The insufficient education to participate in new growth industries and the lack of transportation or financial means either to commute to dispersed suburban jobs or to relocate near them leaves an increasing number of disadvantaged residents of low-income neighborhoods spatially and functionally disconnected from employment opportunities.

Despite gradually rising rates of nonwhite suburbanization, racial residential segregation has remained the norm, and has laid the basis for racial and class segregation in education, transportation systems, access

to public services, and political representation (O'Connor, 2001). As a result, the economic outlook for central cities has been characterized by slow overall job growth, high unemployment rates, and a concentration of welfare recipients in low-income neighborhoods with few opportunities to improve their status (Smith & Woodbury, 1999). However, in recent decades, suburban industrial growth has increased economic inequalities both between central cities and suburbs and among suburban regions.

Suburban and Rural Poverty

Once remote towns on the outskirts of cities, today suburbs are major sites of growth due to the movement of large manufacturers from cities to suburbs or less developed regions. Increasing land use for industrial purposes in these areas reflects the movement of new jobs to the suburbs. As the gap between poor and wealthy suburbs is increasing and suburban regions are becoming more socially stratified, suburban communities are facing new challenges, including fiscal strain, traffic congestion, a lack of affordable housing, inefficient local service delivery, and racial and income segregation in metropolitan areas (Baldassare, 1992). To illustrate, of the 34.6 million people that were in poverty in 2002, nearly four out of ten (38%) resided in suburban areas (U.S. Census Bureau, 2004a).

Nearly a quarter of the individuals in poverty live in rural areas. Traditionally, rural poverty has been viewed as the result of agricultural decline caused by farm failures, diminishing farm income, vanishing jobs, high levels of underemployment, and the absence of nonfarm employment opportunities (Taylor, Martin, & Fix, 1997). Programs to address rural poverty have typically included transitioning people out of agriculture, attracting nonfarm employers into rural environments, and providing subsidies to boost farm income. However, in California, rural poverty occurs in an environment of agricultural prosperity and low farm wages. As a result, California has become home to the fastest-growing concentration of rural poor in the nation, especially in farm worker communities that are growing at a rate that equals or exceeds urban growth (Taylor, Martin, & Fix, 1997).

Emerging Immigrant Communities

Immigrant settlement patterns at the local level are best understood in the context of rapidly increasing immigration nationwide. There have

been several major migration flows to the U.S. in the post-WWII period: (1) legal immigrants, (2) refugees, (3) asylums, (4) unauthorized migrants, and (5) persons admitted for short periods of time on non-immigrant visas. During the 1990s, more than 13 million people moved to the U.S., averaging well over a million immigrants per year. By 2000, the foreign-born population, as measured by the Census, exceeded 31 million, or about 11 percent of the total U.S. population. While lower than the historical high of 15 percent around 1900, the foreign-born share of the population has more than doubled since 1970 and according to the March 2002 U.S. Current Population Survey (CPS), the foreign-born population had grown to an estimated 32.5 million.

The increased volume, share, and geographical concentration of persons from Hispanic and Asian countries have been important features of this wave of immigration which has typically been attributed to social networking (Massey, 1987; Portes & Rumbaut, 1996; Rumbaut, 1999). Of the immigrants who came to the U.S. during the late 1980s, more than 80 percent settled in six states: California, New York, Florida, Texas, New Jersey, and Illinois. The places of settlement for more than half of the immigrants of 1985-1990 (Farley, 1996) included Los Angeles, San Francisco, New York City, Miami, Houston, and Chicago. Although new immigrants continue to settle in the traditional U.S. centers of immigration, new destination states are emerging such as North Carolina, Georgia, Tennessee, and other states in the Southeast, as well as states across the Midwest and into the Pacific Northwest (Capps, Passel, Perez-Lopez, & Fix, 2003). Another feature of the residential patterns of new immigrants is frequent settlement in suburbs immediately upon, or soon after, arrival in the U.S. (Alba & Nee, 1999). However, according to 1990 census data, 43 percent of immigrants who arrived during the 1980s and were living in metropolitan areas already resided outside of central cities in areas considered "suburban" (Rumbaut, 1999).

With the exception of strong economic growth during the latter half of the 1990s, these changes have occurred at the same time that U.S. economic growth has slowed, wages have stagnated, and earnings inequality has increased (Bean & Stevens, 2003). As a result, immigrants, who today make up one in nine U.S. residents and one in seven U.S. workers, are also one of every five low-wage workers. These newcomers also tend to be overrepresented among the less educated (Capps, Fix, Passel, Ost, & Perez-Lopez, 2003) and represent an increasing share of the nation's low-income population. Children in immigrant families have been found to be generally poorer, in worse health than na-

tive-born children, and more likely to experience hardship such as food insecurity and crowded housing conditions. These vulnerabilities could be attributed to the low wages earned by immigrant workers.

The creation of concentrated low-income neighborhoods clearly has social consequences, not only for the immigrants who live in these locales, but for entire minority communities. In urban city centers, African Americans, Mexican Americans, Puerto Rican Americans, and other members of immigrant minority groups are also the poorest of their respective groups. Institutional discrimination and segregation have exacerbated the social and economic processes of minority concentration in low-income communities (Massey & Denton, 1993; Wilson, 1987).

NEIGHBORHOOD EFFECTS:
THE IMPACT OF THE SOCIAL ENVIRONMENT
ON WELL-BEING

Over the past fifty years, a convergence of multiple strands of research related to neighborhood poverty and the social ecology of human behavior have led to a recent expansion of research on "neighborhood effects." In the years following William Julius Wilson's examination of the concentrated poverty and disadvantage experienced among poor, urban African Americans in *The Truly Disadvantaged* (1987), the study of neighborhood effects increased exponentially. By the mid 1990s, psychologists, sociologists, economists and other urban scholars were publishing around 100 studies of neighborhood effects per year; nearly double that of the 1970s. While all of these studies cannot be summarized here, the evidence on neighborhood effects suggests the following (Sampson, Morenoff, & Gannon-Rowley, 2002, p. 446):

1. Considerable *social inequality exists among U.S. neighborhoods in terms of socioeconomic and racial segregation*. Further, there is strong evidence to support a connection between concentrated disadvantage and the geographic isolation of African Americans.
2. Social problems tend to come bundled together at the neighborhood level in *geographic "hot spots."* These problems include crime, adolescent delinquency, social and physical disorder, low birth weight, school dropout, and child maltreatment. Geographic "hot spots" tend to be characterized by multiple forms of disadvantage.

3. *Neighborhood predictors* common to many social problems and child and adolescent outcomes tend to be related and include the concentration of poverty, racial isolation, single-parent families, low rate of home ownership, and short length of tenure of residents.

4. Empirical studies suggest that *place matters*, regardless of factors such as social class, race, and family status.

5. The *concentration of poverty* appears to have increased significantly during recent decades *in concert with the concentration of affluence* at the opposite end of the income scale.

6. *Other social-ecological factors* besides disadvantage may play a role in well-being, including residential stability, home ownership, density, ethnic heterogeneity, and life-cycle status.

Given the importance of neighborhoods and residential differentiation to a range of outcomes across the lifespan, the purpose of this section is (a) to review the known mechanisms by which neighborhoods affect human well-being, and (b) to discuss the known neighborhood effects on social outcomes that may be of most interest to social service providers, including (1) economic and employment outcomes; (2) health and mental health outcomes; (3) crime and safety outcomes; and (4) developmental outcomes for children and adolescents.

Explaining Neighborhood Effects

Several theories have been developed to explain the mechanisms by which neighborhoods affect human behavior and mediate social outcomes. Jencks and Mayer (1990), in their classic review of the neighborhood effects literature, identified the following five theoretical frameworks:

1. Neighborhood institutional resource models may affect children through police presence and access to resources that provide *stimulating learning and social environments*, such as parks, libraries, and community centers.

2. Collective socialization models propose that neighborhood influences affect children through community social organization, in addition to structure and routines, including the presence of *adult role models, supervision, and monitoring*.

3. Contagion or epidemic models focus on problem behaviors and are based on the premise that the *negative behavior of neighbors and peers* strongly influences or spreads to the behavior of others.
4. Models of competition suggest that neighbors *compete for scarce community resources*.
5. Relative deprivation models posit that neighborhood conditions affect individuals by means of their *evaluation of their own situation when compared to other neighbors and peers*.

According to the first three models, having neighbors with high socioeconomic status (SES) is considered beneficial, whereas the last two models predict that more advantaged neighborhoods may negatively affect well-being. However, these models do not explicitly identify the mechanisms or the process of how neighborhoods affect individual well-being (Leventhal & Brooks-Gunn, 2000). Considerable work has been conducted in order to better understand how neighborhood effects occur.

In their comprehensive review of social processes in the neighborhood effects literature, Sampson et al. (2002) identified four primary neighborhood mechanisms that appeared to influence well-being:

1. The level or density of *social ties and interactions* between neighbors, including the frequency of social interaction among neighbors, and patterns of neighboring comprise several dimensions of social relations. The concept of social capital is generally conceptualized as a resource that is realized through these dimensions of social relationships (Coleman, 1988; Levanthal & Brooks-Gunn, 2000).
2. The willingness of residents to intervene on behalf of children and for the public good may depend on conditions of mutual trust and shared expectations among residents, termed *collective efficacy* (Sampson et al., 1997).
3. *Institutional resources* refer to the quality, quantity, and diversity of institutions in the community that address the needs of residents, such as libraries, schools, child care facilities, medical facilities, family support centers, public transportation, and employment opportunities.
4. The location of schools, the mix of residential and commercial land use, public transportation routes and nodes, and other land use patterns affect *daily routine activities* and organize how and when residents come into contact with others.

The social processes of neighborhood effects might also be influenced by and further contributed to the residents' perception of neighborhood satisfaction. In their review of the neighborhood satisfaction literature, Sirgy and Cornwell (2002) identified three major categories of neighborhood features that have been positively associated with neighborhood satisfaction:

1. *Physical features*, including satisfaction with the upkeep of homes and yards, with landscape in the neighborhood, street lighting, crowding and noise level; satisfaction with the proximity of needed facilities and with the quality of the environment in the neighborhood.
2. *Social features*, including satisfaction with social interactions with neighbors, people living in the neighborhood, race relations, and ties with people in the community; satisfaction with crime levels, outdoor play space, and sense of privacy at home.
3. *Economic features*, including satisfaction with home value, cost of living; socioeconomic status of the neighborhood, and neighborhood improvements.

In general, the study of neighborhood effects presents complex methodological challenges, such as defining neighborhoods, deciphering the pathways of neighborhood effects, and controlling for selection bias and other measurement errors. To draw definitive conclusions about how neighborhoods affect social outcomes, many of these challenges need to be addressed. Nevertheless, a large body of research has emerged to suggest that neighborhood context influences a host of outcomes of interest to social service professionals, including (1) economic and employment outcomes (Figure 1); (2) health and mental health outcomes (Figure 2); (3) crime and safety outcomes (Figure 3); and (4) developmental outcomes for children and adolescents (Figure 4). The highlights of this large body of research are noted in Figures 1-4.

USING NEIGHBORHOOD INDICATORS

It has become clear from the previous review of the literature that where people live plays an important role affecting the quality of life and the overall well-being of the individuals and families that reside there. While it is generally true that people who live in low-income neighborhoods experience more adverse social conditions than their

FIGURE 1. Neighborhood effects on economic and employment outcomes.

Major Highlights

- The number of poor and non-poor persons living in high-poverty neighborhoods grew by 92 percent between 1970 and 1990, with the number of poor people living in these locations increasing by 98 percent (Pastor et al., 2000).

- One of the primary determinants of this increasing geographic concentration of the poor has been the changing structure of metropolitan regional economies (Jargowsky, 1997).

- As older industries have left urban city centers, racial segregation in housing has impeded the ability of minority residents to follow jobs to suburban areas (Pastor, Dreier, Grigsby, & Lopez-Garza, 2000).

- Since 1973, the real wages of workers have been more or less in steady decline (Pastor et al., 2000).

- Research suggests that individuals with better social network connections are more likely to be able to secure higher wage jobs even when they have the same low-level skills as those less well-connected job seekers (Pastor et al., 2000; Rosenbaum, 1995).

- Welfare recipients are disproportionately concentrated in neighborhoods with the worst social conditions (Brock et al., 2002).

- Welfare recipients living in suburban areas have greater access to jobs than do inner city residents, and recipients living in areas with greater access to jobs are more likely to exit welfare (Allard & Danziger, 2001).

counterparts in affluent neighborhoods, not all low-income neighborhoods are alike. In addition, neighborhoods are subjected to changes due to population movement and displacement. In order to adequately capture and monitor the dynamic change of neighborhood conditions, improvements in technology and an increased emphasis on accountability have led many agencies to collect and report on a range of social and economic data. The development of geographic information system (GIS) technology now makes it possible to map many indicators of social and economic well-being at the community and neighborhood level.

There are many sources and types of data that can be used to calculate indicators of well-being; however, the local nature of neighborhood level data often requires agencies to pool and maintain this

FIGURE 2. Neighborhood effects on health and mental health.

Major Highlights

- There is a clear link between low socioeconomic status (SES) and a range of risk factors for health and mental health (Marmot & Wilkinson, 1999; Pickett & Pearl, 2001, cited in Ross et al., 2004).

- In a review of multilevel studies on the effects of neighborhood on health status, Ellen et al. (2001) found the following:

  1) *Birth outcomes*. Two of three studies that have explored the impact of census tract characteristics on birth outcomes found that census tract income level was significantly related to the probability of low birth weight (Collins & David, 1990; O'Campo, Xiaonan, Wang, & Caughy, 1997). A third study found that women living in neighborhoods with a large proportion of residents receiving public assistance were at a higher risk of delivering low birth weight infants (Duncan & Larne, 1990). Ellen (2000) found African American women living in more highly segregated metropolitan areas to be at greater risk of delivering a low birth weight infant when compared to those living in less segregated areas. Several studies have also suggested a strong relationship between infant mortality and a geographic area's SES (Ellen et al., 2001).

  2) *Adult physical health*. Several studies have demonstrated a strong association between area deprivation and higher risks of mortality (Ellen et al., 2001), particularly among African American men and women living in high poverty census tracts (Anderson et al., 1997; LeClere, Rogers, & Peters, 1997; McCord & Freeman, 1990). Robert (1998) found neighborhood unemployment, the percentage of families in the neighborhood earning $30,000 per year or more, and economic disadvantage to be significant predictors of the number of chronic conditions. Researchers have found modest evidence of neighborhood effects on self-rated health (Robert, 1998; Marmot et al., 1998).

  3) *Health-related behaviors*. Community SES and levels of violence appear to be related to the likelihood that residents will smoke, consume alcohol, and consume an unhealthy diet (Ellen et al., 2001).

  4) Mental health. A number of studies have demonstrated that various non-psychotic disorders across the life cycle are associated with the quality of neighborhood social networks and social cohesion as well as with exposure to violence and other social hazards (Aneshensel & Sucoff, 1996; Martinez & Richters, 1993; Richters & Martinez, 1993). Further, results from the Moving to Opportunity program in Boston suggest that parents and children who relocated from high-poverty areas to low-poverty areas experienced psychological benefits from the move when compared to a control group given no relocation assistance (Katz, Kling, & Liebman, 2000).

- Other studies have shown significant associations between greater neighborhood income inequality and higher childhood asthma hospitalization (Wright & Fisher, 2003).
- Several decades of research has also documented a link between community characteristics and child maltreatment, especially the amount of parent-to-child physical aggression used by families (Molnar, Buka, Brennan, Holton, & Earls, 2003).
- Noxious environments characterized by noise, litter, vandalism, and crime, which often are the products of social disorganization, stimulate fear and stress while inhibiting health-promoting activities (Caughy et al., 1999; Ross & Mirowsky, 2001; Taylor & Covington, 1993; Wandersman & Nation, 1998).
- Neighborhoods can influence health in two ways: (1) through short-term influences on behaviors, attitudes, and health care utilization that can affect health conditions, and (2) through "weathering" whereby accumulated stress, lower environmental quality, and limited resources of poorer communities, experienced over many years, erodes the health of residents in ways that make them more vulnerable to mortality from any given disease (Ellen et al., 2001; Geronimus, 1992).

information from various sources. While an abundance of information on social and economic conditions is available at the county level through state, federal, and non-profit databases, neighborhood level data is often elusive given smaller area sizes. While county level data may be useful in providing an overall picture of conditions, these measures frequently mask important variations in well-being, such as differences in rural areas, suburbs, inner cities, as well as small geographic neighborhoods. Data available for cities are used to demonstrate how even limited data about the conditions in low-income neighborhoods can be useful for describing (1) the economy and employment; (2) health outcomes; (3) crime and safety; and (4) developmental outcomes for children and adolescents. By developing a set of indicators in the domains of well-being for which significant neighborhood effects have been demonstrated, local institutions may be able to better locate services and target strategies for neighborhood intervention related to community needs. The next section includes a case illustration of how neighborhood indicators can be applied to a region of county social service agencies.

FIGURE 3. Neighborhood effects on crime and safety.

Major Highlights

- Given that most crimes peak during adolescence, much of the literature focuses on the individual correlates of crime (such as race, gender, class, and family background) (Sampson & Laub, 1992).

- There are marked differences in rates of criminal violence across U.S. neighborhoods (Elliott et al., 1996; Miethe & McDowall, 1993; Rountree et al., 1994; Sampson & Wooldredge, 1987; Smith & Jarjoura, 1988).

- At the neighborhood level, criminal violence has been associated with low SES, residence in an impoverished area, and residential instability (Peeples & Loeber, 1994).

- Crime rates are linked to factors such as neighborhood ties and patterns of interaction, institutional resources, and routine activity patterns, especially mixed land use and proximity to schools and malls (Sampson et al., 2002).

- Neighborhoods have a differential ability to maintain effective informal social controls (such as the monitoring of children's play, or the confrontation of persons who are exploiting or disturbing public spaces) which serve as a major source of neighborhood variation in violence (Sampson, Raudenbush, & Earls, 1997).

- Parents in dangerous neighborhoods restrict their own and their children's ties with the community, monitor children closely, and seek services and social ties outside the community (Furstenberg, 1993; Caughy et al., 1999).

- Neighborhood danger also leads to the restriction of positive opportunities such as enrollment in after-school programs that require children to return home after dark (Caughy et al., 1999).

- Individuals who perceived their neighborhoods to be high in physical disorder (vandalism and graffiti) and social disorder (crime and drug use) have higher levels of fear and mistrust; individuals who perceived their neighborhood to be highly disordered actually have fewer ties with neighbors (Ross & Jang, 2000).

- Male youth who move to low-poverty neighborhoods are less likely to be arrested for violent crimes than are their peers who remain in public housing in poor neighborhoods (Ludwig, Hirschfield, & Duncan, 2001).

- Youth who stay in low-income neighborhoods are more likely to demonstrate symptoms of problem drinking in the previous month and to use marijuana in the past year than are youth who move to middle-income neighborhoods (Briggs, 1997).

FIGURE 4. Neighborhood effects on children and adolescents.

Major Highlights

- In the most affluent neighborhoods, parents are more likely to move or *reduce* work hours in an effort to enhance child well-being, while in the least affluent neighborhoods, parents are more likely to *increase* work hours in an effort to enhance child well-being (Pebley & Vaiana, 2002).

- Parents who perceive their neighborhood to be safe are more likely to report that their child is in good health, suggesting that there may be a correlation between stress and health status (Pebley & Vaiana, 2002).

- Even when controlling for income, parents of children in the most impoverished neighborhoods report worse behavioral outcomes for their children than parents of children in more affluent neighborhoods. This suggests that income alone does not explain variation in child behavior; neighborhood appears to have an effect (Pebley & Vaiana, 2002).

- With respect to school readiness and achievement, youth who move to more affluent suburbs are more likely to stay in school, to be in college preparatory classes, and to go on to college than their peers who remain in public housing (Levanthal & Brooks-Gunn, 2000).

- Among older adolescents, studies have suggested that neighborhood racial/ethnic diversity may be associated with the school achievement of African American male youths (Levanthal & Brooks-Gunn, 2000).

- Youth who grow up in high-poverty neighborhoods are more likely to drop out of high school than those who grow up in low-poverty neighborhoods (Harding, 2003).

- With respect to behavioral and emotional problems, among children ages 5 to 6, the presence of low-income neighbors or low-SES neighbors is associated with increased amounts of reported externalizing behavior problems (Brooks-Gunn et al., 1993; Chase-Lansdale et al., 1997; Duncan et al., 1994).

- For 13- and 16-year-old males, residing in low-SES or impoverished neighborhoods is positively associated with delinquent and criminal behavior, an effect that was found to be stronger on the problem behaviors of younger adolescents than that of older adolescents (Loeber & Wikstrom, 1993; Peeples & Loeber, 1994; Sampson & Groves, 1989; Simons, Johnson, Beaman, Conger, & Whitbeck, 1996).

FIGURE 4 (continued)

- Residential instability is linked to substance use in older children, as well as adolescent juvenile delinquency and crime (Ennett, Flewelling, Lindrooth, & Norton, 1997; Sampson & Groves, 1989).

- Low levels of SES related to high perceived environmental hazards (crime, violence, drug use, and graffiti) are related to internalizing behaviors (depression and anxiety) as well as externalizing behaviors that include conduct symptoms (found most often in the disadvantaged) and oppositional symptoms (found most often in middle-class and affluent populations (Aneshensel & Sucoff, 1996).

- With respect to sexuality and childbearing, high rates of neighborhood poverty and neighborhood unemployment have been positively associated with the frequency of adolescent male intercourse, impregnation, and fatherhood (Brooks-Gunn et al., 1993; Crane, 1991).

- High rates of neighborhood poverty and neighborhood unemployment have been negatively associated with contraceptive use (Ku, Sonenstein, & Pleck, 1993).

- Among female adolescents, studies have found a positive association between a high number of unemployed female workers in the neighborhood and increased non-marital childbearing (Billy & Moore, 1992).

- Among both male and female adolescents, a high proportion of foreign-born residents in the neighborhood have been found to be negatively associated with sexual activity (Billy et al., 1994; Ku et al., 1993).

Identifying Low-Income Neighborhoods in the Bay Area

The Northern California Council for the Community (NCCC) is a community-based agency that has been studying neighborhood conditions in the San Francisco Bay Area since 1997. In 2003, they released a report and map of the Bay Area's most impoverished neighborhoods. Concentrated poverty neighborhoods are defined as those areas where 40 percent of residents live at 185 percent or less of the Federal Poverty Level (FPL). The NCCC uses the measure of 185 percent of the FPL to account for the high cost of living in the San Francisco Bay Area. It is also the income threshold at which children qualify for federally funded lunch programs (NCCC, 2003). According to the report, 72 Bay Area

neighborhoods were characterized as concentrated poverty in both urban and rural areas. The majority of these neighborhoods are clustered around the cities of Richmond, San Jose, Oakland, and San Francisco. These cities are located in the counties of Contra Costa (20 neighborhoods), Santa Clara (16 neighborhoods), Alameda (11 neighborhoods), and San Francisco (9 neighborhoods), respectively, and account for 77 percent of the concentrated poverty neighborhoods in the Bay Area.

Using available indicators related to social, health, and economic conditions of the Bay Area, a profile of the neighborhoods of concentrated poverty can be described and better understood.

Economy and Employment

In the Bay area, 18.9 percent of individuals earned less than 185 percent of the FPL. However, in concentrated poverty neighborhoods, one in every two people earned less than this amount (NCCC, 2003). Whereas 10.5 percent of Bay Area children lived below the FPL, nearly one-third of these children (31.9%) lived below the FPL in concentrated poverty neighborhoods (NCCC, 2003).

In 2002, the Bay Area unemployment rate was 6.1 percent (NCCC, 2003). As of May 2004, the average unemployment rate across the four cities in which the majority of concentrated poverty neighborhoods were located was 7.5 percent, with a low of 5.4 percent in San Francisco and a high of 9.0 percent in Richmond (California Employment Development Department, 2004). The differences in unemployment rates across the concentrated poverty areas is difficult to explain, particularly when data at the neighborhood level are not available.

Neighborhood issues are particularly relevant to the federal Temporary Aid to Needy Families (TANF) programs. In January 2003 less than 3 percent of the Bay Area population was receiving the state's CalWORKs assistance (California Department of Social Services, 2003). On average, a higher percentage of CalWORKs recipients were identified in the four concentrated poverty areas (5.5%), ranging from 3.7 percent in San Jose to 7.9 percent in Oakland. The percentage of single female householders with children under the age of 18 ranged from a low of 3.4 percent in the city of San Francisco to a high of 10.9 percent in the city of Richmond (U.S. Census Bureau, 2000). Taken together, these indicators suggest that a combination of different individual, family, and community level factors may be important in addressing conditions associated with concentrated neighborhood poverty. Clearly more data is needed to explain the differences in public assistance usage

across neighborhoods of concentrated disadvantage as well as the relationship between unemployment rates and public assistance usage over time.

Health

The poor health outcomes that have been observed over time in low-income neighborhoods have suggested that living in less advantaged communities may be associated with negative health effects. The available neighborhood level health data for the Bay Area suggests that low birth weight may be correlated with concentrated poverty in some areas. Of 5,858 census tracts, 223 were found to have a significantly high rate of low birth weight while 301 were found to have a significantly low rate. Within the Bay Area, Heck et al. (2000) found low birth weight rates to be the highest in neighborhoods in Oakland, Richmond, and eastern San Francisco. Although specific neighborhood level statistics were not available for this indicator, county level data suggests that Contra Costa (6.2%) and Santa Clara (6.0%) counties demonstrated low weight birth outcomes below the Bay Area average of 6.4 percent (Heck et al., 2000). These differential outcomes for low birth weight suggest that residents may experience other health outcomes differentially. These findings suggest important areas for future assessment when designing comprehensive service strategies for different neighborhoods.

Crime and Safety

Data available at the city level suggest that three of the four areas of concentrated poverty (Richmond, Oakland, and San Francisco) experience considerably higher crime when compared to the state California Crime Index for a group of serious offenses including willful homicide, forcible rape, robbery, aggravated assault, burglary, and motor vehicle theft. However in San Jose, the California Crime Index falls below the state average (RAND California, 2004). With respect to children, data available for three of the four concentrated poverty areas from the Annie E. Casey Foundation's (AECF) City KIDS COUNT (AECF, 2004) suggest that the juvenile violent crime arrest rate tends to be higher in San Francisco and Oakland but significantly lower for San Jose.

Developmental Outcomes for Children and Adolescents

The domains of child and adolescent well-being used in examining neighborhood effects on children and youth include school readiness

and achievement, behavioral and emotional problems, and sexuality and childbearing. Relatively little data is available at the neighborhood or city level concerning child and adolescent well-being in the Bay Area. However, a school-related measure of hardship is the number of children enrolled in the federal discount lunch program. Approximately 28 percent of all children in the Bay Area were enrolled in this program during 2001-2002 (NCCC, 2003). On average, more than half of children in the four concentrated poverty areas were enrolled in this program (California Department of Education, 2004).

Data available for three of the four concentrated poverty areas from the Annie E. Casey Foundation's City KIDS COUNT (2004) notes that the high school drop out rates for 1994 were higher than the national average of 11 percent for San Jose and Oakland at 14-15 percent but were lower in San Francisco at nine percent. The data presented here should be interpreted with caution, particularly since those measures are aggregated at the city and county levels.

Clearly much more small area data will be needed to capture the demographic, social, and economic complexity of neighborhoods with concentrated poverty populations. However, comprehensive service strategies that begin with neighborhood specific assessment techniques can assist planners in designing the most appropriate interventions. Updated indicators of well-being that are reported over time can encourage greater public accountability for neighborhood outcomes and enrich local and state discussions about ways of building better futures for children and families at the local level.

Though a number of studies examine the effects of neighborhood on child and family well-being, many questions remain. The following questions need to be explored if local social service agencies are to meet the needs of low-income families in high-poverty neighborhoods:

1. What are the interrelationships among neighborhood indicators (such as rates of poverty, crime, employment) and child and family well-being variables?
2. How does neighborhood affect employment outcomes and child and family well-being? Which variables have the greatest impact?
3. How has welfare reform affected local neighborhoods?
4. To what extent are county residents migrating from one county to another, and what effect does this have on neighborhoods, employment outcomes, and child and family well-being?

5. Who uses neighborhood-based, private, voluntary services, and what effect does this have on neighborhoods, employment outcomes, and child and family well-being?
6. What types of model programs have been initiated by public social service agencies in an attempt to resolve neighborhood-level problems affecting the working poor?

Possible Methods for Answering Key Questions

To better understand the interrelationships among neighborhood indicators and child and family well-being variables, Chow (1998) and Chow and Coulton (1998) recommend using census and administrative data in a factor analysis that reveals the underlying structure of the relationships. For example, in their study of social conditions in Cleveland between 1980 and 1990, Chow and Coulton (1998) demonstrated that welfare dependency, teenage problems, weak labor force attachment, and changes in family formation became increasingly interrelated over the decade studied. Combining these variables into one social indicator scale would have obscured this increasing interrelationship. In a similar way, local counties could use census and administrative data from a variety of sources (social services, police records, etc.) to examine interrelationships specific to their region.

An additional advantage of using census and administrative data is that it allows us to examine historical trends. Such historical analysis is critical to increasing our understanding of local migration patterns, the changing concentration of welfare recipients in low-income neighborhoods, and shifting neighborhood dynamics. Combining census, administrative, and ethnographic data, as in the MDRC and Rand neighborhood studies, would allow us to gain a richer understanding of complex neighborhood dynamics.

Implementing Neighborhood Assessment: A Step-by-Step Process

Neighborhood specific assessment techniques can assist program planners in designing the most appropriate interventions. Local institutions may be able to better locate services and target strategies for neighborhood intervention by developing a set of indicators in the domains of well-being for which significant neighborhood effects have been demonstrated. The implementation of a neighborhood-based information system involves at least the following four steps:

Step 1:
Identify and Disaggregate Existing Welfare-to-Work Participant Data

A critical first step to implement a neighborhood assessment is to have a capacity to identify the addresses of current and former welfare-to-work services participants. While many local county social services have already identified the geographic location of these families, the total number of enrollment is typically used as the indicator. Caseload is helpful to provide an overall picture of the location of welfare-to-work users. However, it is important to note that welfare-to-work participants have very different experiences and pathways to becoming self-sufficient. For example, a recent Bay Area study found that there are major differences in the demographic characteristics, education background, and job-related history and skills among the long-term, the transient, and the leavers of welfare-to-work participants (DeMarco, Austin, & Chow, 2004). In addition, their participation in various welfare-to-work programs, activities, as well as support services could be different. The disaggregation of enrollment data by groups can help identify the geographic differences among these groups of welfare-to-work participants across neighborhoods.

Step 2: Acquire Data from Multiple Sources

The adverse social conditions in many low-income neighborhoods are often multifaceted and complex. A neighborhood assessment should be comprehensive in nature which requires data collection from multiple sources. The decennial U.S. census data provide the most detailed information on the demographic, socioeconomic, and housing characteristics of the population and household residing in a given area. In addition, the administrative data collected by other public agencies (county health, housing, mental, public health, etc.) can be used to understand the characteristics of the areas. The task is to identify the agencies that have access to neighborhood-level data needed to create the indicators for analysis. For example, in addition to the general descriptor of the population, some of the possible indicators and the data sources are displayed in Figure 5.

Step 3: Compile and Standardize Data in Common Geographic Unit

The neighborhood-based assessment should contain data at the small-area level so that geographic areas with various levels of needs can be compared and targeted. However, different agencies often have

FIGURE 5. Selected examples of indicators and data sources.

Indicators	Sources

Population
  Demographics
    Total population
    Race/ethnicity
    Age
    Sex
    Marital status
 	
  Households composition
    Married couples
    Single parenthood
    Non-family
 	
  Residential mobility
	U.S. Census of Population and Housing

Economics
  Poverty (100%, 150%, 200%)
  WtW caseload (adults, children)
  Long-term WtW participants
  Time-out WtW participants
  Number of food stamps participants
  Number of Medicaid claimers
	U.S. Census of Population and Housing
	County Social Services Agencies

Labor force and employment
    Labor force participation
    Employment by industry
    Employment by occupation
  WtW participants who found jobs
  WtW participants with earning
  Average earnings of WtW participants
	U.S. Census of Population and Housing
	
	County Social Services Agencies

Crime and safety
  Violence crime incidence
  (aggravated assault, arson, assault, auto
  theft, burglary, homicide, larceny, rape,
  robbery)
  Drug violation arrest
  Juvenile delinquent filing
	City Police Department

Health
  Birth and death
  Infant death
  Low birthweight
  Birth to unmarried mothers
  Birth to unmarried teenage mothers
  Excess mortality
  Disability
  Infectious diseases
  (STD, HIV/AIDS)
	County Department of Health

Indicators	Sources

Mental health
Number of WtW participants using MH services
Number of WtW participants using substance
    abuse services
Number of WtW participants using domestic
    violence services
Number of MH service users
Number of substance abuse treatment users
Characteristics of users
	County Department of Mental Health

Child well-being Number of child maltreatment cases on TANF Number of child maltreatment cases Number of foster children Subsidized day care	County Social Services Agencies
Education School children absent days Children passing grade competency exam High school drop out Head Start enrollment Discount lunch program enrollment Immunization	Local school district

different boundaries or target areas for data collection and reporting. The task is to have a common identifier with fixed geography or uniform boundary for all the data elements. As a general rule, a lower level of geographic aggregation provides greater flexibility for data manipulation. It is desirable to store the original data with actual street addresses. The addresses can then be assigned a census code in reference to its spatial location through geocoding (e.g., an x-y coordinate such as longitude and latitude). Census tracts are the optimal choice as the unit of analysis because they are already defined and widely used by the Bureau of the Census and many agencies. They tend to be stable over time, can be easily aggregated to larger geographic areas, and can be geocoded by existing computer mapping programs (Chow & Coulton, 1996).

Step 4: Analyze Data for Informed Decision Making

Once the comprehensive neighborhood indicators are in place, the next step is to analyze the data so that informed decisions can be made. The relationships of indicators in various geographic localities can be

examined for program planning and development purposes. For example, program strategies at the neighborhood level would be different in areas where a large proportion of long-term welfare-to-work participants are concentrated as opposed to those areas where there was a high proportion of former welfare-to-work participants. In addition, weighting the relative importance of different indicators, a composite index of area needs can be determined and compared across neighborhoods.

Children and adults living in poverty are at risk for a number of negative outcomes. This analysis has demonstrated that the social environment in which low-income families live can influence many aspects of their lives. Those who live in low-income areas are more likely to experience health, mental health, or socio-behavioral problems. The issues are multifaceted that require intervention at multiple levels. While the traditional role of public social service focuses on the recipient of public assistance, in the post-welfare reform environment, the new challenge must not only rest on the individual but also target the social fabric at the neighborhood level. By analyzing adverse social conditions across neighborhoods, a more comprehensive understanding of the characteristics of the area can be developed in order to identify families who are most in need of services and neighborhood supports.

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