# Mental Life and the Metropolis in Suburban America: The Psychological Correlates of Metropolitan Place Characteristics

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Many critics argue that America's suburbs foster depression and mental distress, but researchers have not sufficiently tested whether the characteristics that actually distinguish metropolitan places (both cities and suburbs) correspond to any differences in psychological well being. Looking beyond inaccurate city-suburb dichotomies, this paper examines the relationship between six characteristics of metropolitan places (population size, density, racial composition, affluence, age, and land-use) and a variety of indicators of mental health including depression, life satisfaction, and self-efficacy and esteem. Findings from multi-level data constructed from the Americans' Changing Lives Survey and the Census indicate that two characteristics of metropolitan places relate to psychological health: population density and affluence. Residents of denser places are more likely to report depressed mood and dissatisfaction with their neighborhoods; those in more affluent places are more likely to be depressed, less satisfied with life, feel lower levels of self-efficacy and esteem. In conclusion, I suggest that the social isolation that accompanies the economic segregation of many suburban communities is an important source of suburban psychological malaise.

The denigration of suburbs as psychologically unhealthy places is a common theme in contemporary public discourse. Academics and intellectuals bemoan the excessive privatization of social activity and the paucity of suburban community attachments (e.g., Putnam 2000, Suarez 1998, Kunstler 1995); films like "American Beauty" and "The Ice Storm" characterize suburban life as isolated and psychologically estranged; "new urbanist" architects decry the dispirited and privatized quality of suburban residential developments (Calthorpe 1998, Duany and Plater-Zyberk 1991); even *Newsweek* recently declared on its cover the "end of the suburban dream." As Philip Langdon summarizes, "The United States has become a predominantly suburban nation but not a very happy one ... the problem is that the suburbs we build are fostering an unhealthy way of life." Suburbs, it would seem, are guilty of harming our mental health.

But how valid are these criticisms? America may be a nation of suburbs and Americans may exhibit relatively low levels of happiness and psychological well being (Lane 2000, but see also Diener and Suh 1999), but researchers have yet to link suburban social environments to any patterns of psychological distress. Partly this comes from the lack of clarity about what makes suburbs distinct as places not only from cities, but from each other as well. Many studies continue to crudely lump suburbs together as a single category of place despite the tremendous variation in their size, age, composition, and land-uses.<sup>2</sup> And while scholars have long examined the psychological impacts of social environments, neither sociological or psychological theory offers much to suggest why suburbs are more psychologically damaging than other environments. Indeed, the flora and spaciousness of suburbs were once applauded as a healthy corrective to the psychologically distressful urban experience (Jackson 1985). Furthermore,

<sup>&</sup>lt;sup>1</sup>Langdon 1993, p. 1.

<sup>&</sup>lt;sup>2</sup>For the purposes of this paper, the term suburb will refer to all areas within a metropolitan area that are not part of the central city.

almost no empirical research has actually compared the psychological well being of urban and suburban residents in a sufficient or rigorous way. The few studies in environmental psychology and sociology that examine place-level social contexts have focused largely on comparisons between urban and rural communities (Hoyt et al. 1995, Webb 1984) or focused on just place size alone (Fischer 1982, Rodgers 1980). The other characteristics that distinguish both cities and suburbs from each other have not been examined and the indictments of suburban psychological distress remain largely unsubstantiated.

Despite these problems, psychological well being and mental health in suburbia is an important topic. With the massive migration to the suburban hinterland over the past fifty years, American has changed from a country largely bifurcated between dense, urban areas and sparse rural places into a country dominated by small to medium sized places that are often highly singular in their social and economic composition (Baldassare 1986). New communities have emerged that are comprised of only the affluent, single-family homeowners, or people of one race. This intense social segregation poses many interesting questions for inquiries into the relationship between individuals, their social connections, and their mental health.

Environmental psychologists and urban sociologists have focused primarily on the psychological consequences of dense, loud, and crowded environments (e.g., Baum and Paulus 1987, Freedman 1975); little attention has been given to the effects of social homogeneity and segregation, particularly in the context of a greater metropolitan area.

This paper is an empirical exploration into the psychological correlates of American metropolitan social contexts. Using multi-level data constructed from the 1986 Americans' Changing Lives Survey and the 1990 Census, several hypotheses about how place-level physical and social characteristics affect individual depressed moods and mental health are examined.

The data show that psychological well being diminishes with two characteristics that distinguish metropolitan places: density and affluence. While the negative effects of density are consistent with past theories, the negative psychological consequences of affluence are quite surprising, especially considering that economically distressed areas are normally associated with greater psycho-pathology. Further analyses suggest that affluent suburban environments may harm psychological well being partly through dampening social connections among residents. Whatever psychological benefits affluent suburbs may offer from their high resources appear to be offset by the social isolation and alienation of their residents. The social isolation inherent to the economic segregation of affluent suburbs may have negative psychological consequences.

## PAST RESEARCH ON SOCIAL ENVIRONMENTS AND MENTAL WELL BEING

Anticipating the relationship between suburban environments and mental health is a difficult proposition. The determinants of psychological well being are numerous and their linkages to environments are not easily identified (Argyle 1999, Campbell 1981). However, from past research in psychology and sociology, it appears that environments can shape psychological well being in two general ways. The first way is from the direct impact of the physical surroundings. Crowds, noise, pollution, and the built environment have been linked to a variety of pathologies and mood disorders including depression, anxiety, delinquency, and suicide (Freedman 1975, Halpern 1995, Durkheim 1897). Physical surroundings may also relate to a sense of self-efficacy which is an important predictor of depression, a state that is more difficult to sustain in large and seemingly chaotic environments than small, familiar ones (Gecas 1989). The second way is through differences in interpersonal relations. In places where social contact between neighbors is more difficult, stressful, or conflict-ridden or where inhabitants find

greater difficulty integrating into more formalized social exchanges, feelings of isolation, loneliness, and low self-efficacy may be common, all of which are correlates of depression and psychological distress (Gable and Nezlek 1998, Holahan et al., 1997). Although much of the research linking both physical and social environments is contradictory and inconclusive (Fischer 1982), these two categories are a useful starting part for examining suburban ennui.

But before proceeding further, it is imperative to first be clear about what differentiates metropolitan places, be they cities or suburbs, from one another. The most common way that suburbs are characterized is in opposition to large, central cities and, in many respects, this contrast makes sense. With suburbanization, American metropolitan places have become increasingly differentiated by the traits classically associated with urban areas, namely size, density, and heterogeneity (Wirth 1939). Today, a greater proportion of Americans within metropolitan areas are living in small to medium-sized places of lower population density that are also more homogenous in their racial and economic composition (Massey and Denton 1993, Oliver 2001). As not all suburbs are uniformly small, spacious, and homogeneous or all large cities similarly dense, these three traits are also good for distinguishing not simply suburbs from cities but all *places* within metropolitan areas from one another.<sup>3</sup>

Size, density, and heterogeneity are also useful to consider as characteristics of metropolitan places because of their alleged psychological importance, particularly in the classic urban sociology literature. Simmel (1905) argued that the over stimulation of urban areas caused psychic withdrawal; Wirth (1939) speculated that the inevitable frustrations and tensions resulting from crowded, diverse contexts would foster "personal disorganization, mental

<sup>&</sup>lt;sup>3</sup> By places, I refer to the Census Bureau usage of the term which indicates any political incorporated municipality or census-designated place, (unincorporated areas that are of a certain population density and economic interdependence).

breakdown, suicide," and other psychological maladies. Later scholars, however, have challenged these early conceptions (Hoyt et al., 1995). In reviewing the literature comparing mostly residents of urban and rural areas, Fischer (1984) concludes that "the evidence fails to support the claim that urban life is psychologically damaging." Most research on the negative consequences of crowding and density has been limited by the external validity of laboratory-based findings or ecological fallacies derived from analyzing only aggregate-level data (Webb 1984). But while urban environments may not be psychologically damaging in the manner imagined by early scholars, they are a source of greater unhappiness and other symptoms of depression – compared to their rural counterparts, American urbanites report being less happy and less satisfied with their communities (Campbell 1981, Rodgers 1980, Veroff et al., 1981).

The question remains as to what specifically about urban areas causes these psychological pathologies and whether these hypotheses also apply to other parts of the metropolis. In reviewing past research, speculations about the psychological ramifications of size, density, and heterogeneity in suburban (i.e., non-central city) contexts are decidedly mixed. On the one hand, with respect to their smaller size, lower population density, and racial homogeneity, suburbs are believed to promote happiness and mental well being. A smaller population size should allow for a greater sense of control and self-efficacy (Hendryx and Ahern 1997), provide for more proximate social contacts between neighbors, particularly for women (Fischer 1982, Oliver 2001), and are less likely to contain the social stresses of large population centers such as crime and pollution (Skogan 1990). Similarly, the sparse population of many suburban places may reduce physical externalities of dense cities such as noise, social chaos, congestion, and blighted physical structures. Finally, while the psychological consequences of

<sup>&</sup>lt;sup>4</sup>Fischer 1984, p. 190.

racial segregation in metropolitan areas have not been researched, from the standpoint of community attachments and social integration, racially homogeneous environments may foster in-group social contact for both whites and blacks (Bledsoe et al., 1995). In particular, for blacks in predominantly white areas, social connections and trust between neighbors may be limited and social support impaired.

On the other hand, the economic stratification of metropolitan areas may have negative psychological ramifications. Extreme concentrations of poverty in central cities and inner lying suburbs have profound effects on perceptions of efficacy, anxiety, stress, and happiness (Skogan 1990, Wilson 1985). Economic segregation at the high end of the income scale may also have negative psychological consequences as residents of such places are less involved and interested in community affairs (Oliver 1999). The social isolation of affluent enclaves may reduce the sources of interpersonal community support for residents and promote feelings of loneliness and alienation.

The other distinguishing characteristics of metropolitan places, age and land-use, may also have psychological consequences. Although most early cities and towns contained a mixture of residential, commercial, industrial, and civic areas, with the recent expansion of many metropolitan areas, new types of communities have emerged that often are very singular in their land-use (i.e., comprised of nothing but homes or, in a few cases, businesses). This differentiation by land-use also highlights the age differences in many metropolitan places. Many older towns were built before the advent of central air-conditioning or the heavy reliance upon automobile transportation and, as a result, tend to have more dense housing with front porches (to escape the summer heat). These architectural patterns are believed to promote a "front-porch" or "street-corner" society whereby neighbors would congregate together in a

shared public space (Calthorpe 1995). New suburban homes typically are characterized by larger lots, fenced-in back yards, central air-conditioning and facades dominated by garage doors. According to Jackson (1985), these architectural forms encourage the privatization of leisure time - instead of meeting on the front porch, new suburbanites spend evenings sequestered away in private yards or in air-conditioned television rooms. Such characteristics may have negative psychological consequences for suburban residents. The uniformity of housing design, garage dominated facades, curvilinear streets and cul-de-sacs, the absence of sidewalks and pedestrian oriented shopping areas, and the distance from workplaces all are said to contribute to greater social isolation and anomie in many suburban communities(Kunster 1995, Duany and Plater-Zyberk 1991, Langdon 1997). As with the other characteristics of suburbs, none of these claims has been subjected to any systematic empirical research.

In sum, while the psychological consequences of suburban environments have not been established, there are many reasons for suspecting that the traits that best distinguish metropolitan places from one another also may influence their residents' mental health. Rather than viewing cities and suburbs as separate categories of place, it is more accurate to consider all places in metropolitan areas, be they cities, suburbs, or exurbs, as similar units of analysis that can be distinguished by their internal characteristics, such as population size and density, racial and economic heterogeneity, age, and land-use. These six traits, while sometimes correlated, represent the most important ways that metropolitan places have become differentiated over the past fifty years and each may have important psychological effects.<sup>5</sup>

 $<sup>^5</sup>$ In analyzing 1990 Census data for over 9,000 places in metropolitan areas, the greatest correlations among these characteristics are between city size and both density (.346) and percent commuting (-.466) and between density and percent white in a place (-.304).

### MEASURING METROPOLITAN CONTEXTS

To test these speculations, I utilize data from the 1986 Americans' Changing Lives Survey (House 1997) and the 1990 U.S. Census. The ACLS is comprised of a cross-sectional random sample of in-person interviews containing a large battery of questions measuring health, mental well being, social activities, and relationships. With its large sample size, it is one of the most comprehensive and recent large studies of the social ties, health, and well being of the American population and has been used in numerous studies on mental health and well being (see Bromon 1993, Umberson et al., 1992, 1996). For this study, respondents who lived in both metropolitan areas and in clearly identifiable places were selected (2,191 cases).

The ACLS data do have several limitations that need to be considered when conclusions are drawn from the data. Because the ACLS was designed to examine the effects of social relationships and health, primarily among an older population, the sample is older (average age of respondents is 53) and more female (63 percent) than the general population. The exclusion of rural areas along with the over-sample of black respondents means the sample is

 $<sup>^{6}</sup>$  The 1990 Census measures of place were used rather than the 1980 census measures because they were closer in date to the time when the ACLS sample was collected.

The ACLS was a set of surveys originally designed by James House at the University of Michigan to investigate the "productivity" of social relationships and how individuals adapt to chronic stresses that threaten their health. For sampling, a multistage stratified area probability sample of non-institutionalized persons 25 years and older was used. The sample design included four distinct selection stages: probability proportionate to metropolitan area size and non-metropolitan area counties; area segments within the selected primary sampling units; selections of housing units within the boundaries of the area segments; and, selection of individuals within the housing unit. African Americans and senior citizens were sampled at twice the rate. Initial face-to-face interviews lasted approximately 86 minutes on average and were completed with 3,617 respondents between May and October of 1986. The data were weighted for all analyses to adjust for variations in probabilities. In-person interviews were conducted in the first wave that lasted approximately 50 minutes.

<sup>&</sup>lt;sup>8</sup> Another possible data set, the Epidemiological Catchment Area Program, also has a large sample size but has less information about social and community involvement than the ACLS.

disproportionately black as well. While these factors limit the ability to make generalizations about the entire American population, this paper is primarily concerned with exploring differences across settings and, in this regard, the distribution of the sample should not be problematic, particularly when age, sex, and race are controlled. In addition, the age of the data could raise concerns about their suitability for discussing contemporary metropolitan contexts. Although the data's age should be considered, the differentiation of metropolitan places by size, density, or income has not abated since the 1980s. In other words, there is no reason to suspect that the effects of place size, density or land-use on mental well being are significantly different now than they were 15 years ago.

To measure the effects of metropolitan environments, the census-defined place of the respondent was denoted and the specific place-level characteristic was appended for each individual-level record. These place-level characteristics include population size, density (measured as number of people per square mile), percent white, median household income, median building age, and percent of the population commuting to another place to work. The measure of median household income can serve both as an indicator of affluence and economic segregation. Places at the ends of the median household income spectrum, both low and high, tend to be very internally homogenous, while places in the middle are significantly more heterogeneous (Oliver 1999). The metropolitan portion of the ACLS respondents is distributed across 210 census-designated places. As listed in Appendix B, these places are well distributed by size, density, and affluence, with a large number of both very small and very large places. This multi-level data thus allows for the effects of social environments to be measured while

<sup>&</sup>lt;sup>9</sup> The census provides no distinct measures of land-use. It does, however, list how many employed persons work within their place of residence or work in another town. Although not a precise measure, a high percentage of commuters can signify a more predominantly residential land use pattern

controlling for individual characteristics that are also important determinants of mental well being such as education, age, and gender. Because of the large number of places and the relatively small number of cases in most locales, multi-level estimation procedures such as HLM could not be employed.

Measuring the psychological well being of a population is a more difficult proposition. Kahneman (1999) and Tennan et al. (1995) suggest that any determinant of psychological well being in general, and depression in particular, be comprised of multiple assessment periods and methods and based on relevant comparison groups. 10 The ACLS data do not allow for comparisons over time, but they do hold a number of different items measuring various dimensions of psychological well being utilized in past research. 11 These include a battery of items on the frequency of various emotional states and physical symptoms during the past week, measures of longer-term assessments of mental well being, such as feelings of life satisfaction and general happiness, and perceptions of self-efficacy and self-esteem as measured with batteries of questions. Measures of social integration and contact as well as feelings of neighborhood satisfaction and safety, factors that link the social environment to mental wellbeing, are also utilized. Although any one item may be limited as a representation of mental health and repeated measures over time would be ideal for making overall assessments of mental well being, the ACLS provides over 20 different measures at one point in time. With the large number of cases and places sampled from, these data can provide the basis for some rudimentary comparison of the effects of different social contexts.

<sup>(</sup>Oliver 2001) and is the best single indicator within the census.

 $<sup>^{10}\</sup>mathrm{But}$  for a response, see Weary et al. 1995.

<sup>&</sup>lt;sup>11</sup>Although the ACLS data do have a second wave conducted in 1989, these data do not contain the same battery of psychological measures.

The empirical analysis begins with an examination of self-reported emotional states and depression. Table 1 lists the result of multivariate OLS regressions estimating the effects of the six social characteristics of places listed above on five indicators of mental well being. 12 The first four indicators of psychological well being are direct measures of the frequency of certain emotional states during the past week (i.e., lonely, sad, depressed, and happy). The last item was the Center for Epidemiological Studies Depression Scale (CES-D) that uses these measures as well as a number of other physical and emotional indicators of depression including eating and sleeping problems, feeling understood or unknown, enjoying life, and feeling motivated. 13 The equations also control for several individual-level determinants of psychological well being (Argyle 1999) such as age, education, income, marital status, length of residency, race, and sex as well as an interaction term between the percent white in a city and a dummy variable measuring whether the respondent was black. A full description of these and all subsequent survey items is listed in the Appendix.

### INSERT TABLE 1 ABOUT HERE

The analyses indicate consistent and statistically significant relationships between two place-level characteristics and the indicators of emotional well being. In line with previous research on crowding, residents of denser places are more likely to report feeling lonely, sad, less likely to be happy, and score higher on the CES-D depression index than residents of

 $<sup>^{12}</sup>$ The long distribution along the upper end of the city-level income scale presents a challenge for measurement. For example, a \$25,000 difference in median household income is more important between \$15,000 and \$40,000 than between \$70,000 and \$95,000. To compensate for this skewed distribution, the log of the median household income was taken and substituted in the regression.

<sup>&</sup>lt;sup>13</sup>The CES-D scale has consistently demonstrated validity in large sample epidemiological studies. For a full description and evaluation of this

metropolitan places with lower population densities. Across all places within metropolitan areas, population density corresponds with greater emotional distress.

Much more surprising, however, is the effect of place level income. Despite the fact that more educated and affluent *individuals* are less likely to report emotional distress, residents of more affluent *places* report greater instances of feeling sad and depressed and are less likely to report feeling happy. They also score much higher on the CES-D summary index of depression. People in affluent metropolitan places are much more depressed than people in less affluent places.

Interestingly, there were no clear patterns for any other place-level characteristics such as population size, place age, the percent commuting, or racial composition. Despite the speculations of the writers noted above, there is no correspondence between depression and a community's size, residential character, or age. Nor are there any psychological consequences from the racial composition of a community. Neither blacks nor whites and other minorities report any differences in emotional states with the white racial percentage of their communities.

Nevertheless, the findings indicate significant differences in measures of emotional life with the density and income level of a community, differences that are often as large as important individual-level determinants of psychological well being. For example, the differences in reported levels of sadness between residents of the least and most dense places or the most and least affluent places are greater than between single and married, the young and old, or men and women. The results demonstrate that the social composition of a community is a consistent factor relating to its residents' mental well being.

Similar outcomes also occur with respect to general feelings of happiness and satisfaction

with life. Using measures from the life satisfaction index first developed by Neugarten et al. (1961), respondents in the ACLS were queried about how satisfied they were with their lives as a whole and whether they felt these were the best years of their lives. Although these items do not measure specific psychological phenomena, they can serve as general indicators of the respondents' own appraisal of their lives and a general state of morale (McDowell and Newell 1996). To measure whether these self-assessments change across metropolitan social environments, these three measures were regressed on the same set of environmental and individual-level predictors used above. The results of these equations are listed in Table 2.

### **INSERT TABLE 2 ABOUT HERE**

As with the indicators of emotional well being listed in Table 1, general life satisfaction declines among respondents in more affluent places. Irrespective of their own income levels, people who in live in wealthier communities are more likely to express general dissatisfaction with life and are less likely to feel these are the best years of their lives. And, like the findings in Table 1, population density is also related to self-assessments of life satisfaction, although not the other indicator. Interestingly, residents of older places are also more likely to express lower levels of life satisfaction too. Otherwise, none of the other distinguishing characteristics of metropolitan places relate to any patterns of general life satisfaction. As with indicators of emotional distress, population size, racial composition, and residential predominance have no impact on the general assessments of their residents' life satisfaction.

Another way the ACLS measured the psychological well being of respondents was with questions on self-efficacy and self-esteem. Both of these factors are important determinants of mental health: people who feel less able to influence their world or hold a lower opinion of themselves also exhibit greater levels of psychological distress, are more prone to depression,

and suffer other health problems (Gecas 1989, Holahan et al. 1997, Peterson 1999). Table 3 lists the results of OLS analyses gauging the impact of place and individual level characteristics on a measure of positive self-efficacy, low self-efficacy, and self-esteem.

### **INSERT TABLE 3 ABOUT HERE**

Across all three indices of self-conception, the results are the same: residents of places with a higher median household income report lower scores on the positive self-efficacy index and positive self-esteem index and higher scores on the negative self-efficacy index. In other words, people in more affluent places are more likely to agree with statements that they think they are no good, that they feel like a failure, that they feel they are pushed around in life, or that they have limited capacity to solve their problems; they are less likely to take a positive attitude towards themselves or feel they can do anything they set their minds to. These trends occur in spite of the fact that people with higher individual-level incomes or education score much higher on the scales of self-efficacy and self-esteem. Almost none of the other place level characteristics have any bearing on these same feelings. Unlike the previous indicators of psychological well being, population density has no relationship with feelings of self-efficacy or esteem, and neither does a place's population size, racial composition, age, or residential predominance. The one exception is that residents of more predominantly white communities are less likely to indicate low self-efficacy. Outside of this finding, the environmental determinants of self-efficacy and esteem are derived solely from a place's affluence.

In sum, two characteristics of metropolitan places are important determinants of their residents' psychological well being: population density and affluence. As the number of residents per square mile increases in a place, its residents are more likely to experience negative emotional states and exhibit more symptoms of depression. More consistent, however, are the

effects of affluence. Controlling for an individual's own income and education, residents of more affluent places report greater feelings of depression, lower feelings of general life satisfaction, and lower levels of self-efficacy and esteem. Quite simply, people in wealthier places experience less psychological well being than residents of less affluent ones. <sup>14</sup>

The puzzle of these findings is why these effects occur. Prior research suggests the physical externalities associated with population density may contribute to higher depression, but no research has examined the impact of community wealth. If anything, psychological health should be greater in more affluent places with the absence of crime, blight, and decay. To explore these relationships further, the effects of place characteristics on the two linkages between contexts and mental well being, physical environments and social connections, need to be examined further.

## SATISFACTION WITH NEIGHBORHOOD AND FEELINGS OF SAFETY

The clearest explanation for the negative psychological effects of a social environment is that the survey respondents are reacting to the physical characteristics of their surroundings. For example, densely populated places in metropolitan areas are more likely to contain higher levels of social problems, pollution, crime, and physical decay (Skogan 1990). Inhabitants of such places should be more likely to be dissatisfied or fearful of their environments. Respondents in the ACLS demonstrate that this is the case. Table 4 lists the results of two OLS analyses where

<sup>&</sup>lt;sup>14</sup> To test for differential effects of individual income across different economic environments, I ran separate estimations with interaction terms between the community income level and individual income. Places were divided into three categories (poor, middle-class, and rich) with dummy variables for poor and rich communities. These dummies were then multiplied by the term for family income. In no equation were there differences in rich places by individual income level. In other words, low-income and high-income individuals reported equal levels of depressions, life satisfaction,

two measures of neighborhood satisfaction and safety were regressed on the same set of placelevel and individual-level variables used above.

### **INSERT TABLE 4 ABOUT HERE**

The regression results conform to the conventional wisdom regarding people's perceptions of neighborhood satisfaction and safety. Residents of larger and denser places expressed greater dissatisfaction with, and a lower sense of safety in, their neighborhoods. Given the greater physical problems associated with large and densely populated cities, these findings make intuitive sense. Residents of more affluent places indicate higher levels of satisfaction and safety. Once again, given the nicer physical state and higher police protection afforded in affluent places, a higher perception of satisfaction and safety among residents of affluent communities is not surprising. Interestingly, people in places with higher percentages of commuters (i.e., largely residential suburbs) express less satisfaction with their neighborhoods, although they do not feel less safe. As many architectural critics note, residents of bedroom communities seem less satisfied with their surroundings than people in places with mixed landusage. And, finally, as one would expect, the effects of social context on perceptions of neighborhood satisfaction are larger than the differences in all individual-level traits except for age. In other words, the differences in neighborhood satisfaction are greater between residents of the most and least dense places or the largest and smallest places than between the most and least affluent individuals or men and women.

These results offer mixed implications in explaining the differences in psychological well being listed in Tables 1 through 3. On the one hand, the low levels of neighborhood satisfaction and safety in more densely populated places correspond well with the lower levels of happiness

and emotional well being in such places. The physical characteristics of population density would appear to make residents less satisfied with their surroundings. Dissatisfaction and fear are not the only sources of mental distress - residents of larger communities also express greater dissatisfaction and fear with their neighborhoods but do not exhibit greater depression. Probably, as speculated by early theorists such as Simmel and Wirth, the stress and overstimulation of population density also take a psychological toll. On the other hand, residents of affluent places express much greater satisfaction with their surroundings, yet also report lower levels of psychological well being. To whatever extent the measures of neighborhood satisfaction and safety capture the response to the physical environment, it is clear that the negative psychological responses to place-level affluence are not the result of people's reaction to their physical surroundings. Other contextual factors aside from neighborhood satisfaction and safety must also be influencing psychological well being.

### INFORMAL AND FORMAL SOCIAL CONNECTIONS

The other way that metropolitan social environments can shape psychological well being is through altering patterns of social interaction. A sense of social integration is a key component to subjective well being: people who are married, who report greater contact and support from friendship groups, and who have a greater sense of community all report greater feelings of life satisfaction, happiness, and well being (Campbell 1980, Davidson and Cotter 1991, Freedman 1978, House et al. 1988). Such social bonds are highly dependent upon social surroundings. For example, people in larger places are less likely to know their neighbors and have geographically proximate social networks, although they may compensate by having more

specialized social connections (Fischer 1982). Oliver (2001) reports that residents of more affluent and racially segregated communities are less likely to engage in civic and community behaviors. From this research, it is possible that the lower levels of psychological well being in affluent places may stem from the paucity of social connections.

This proposition is tested with several items measuring social interaction. Respondents in the ACLS were asked how often they visited with friends and spoke on the phone and whether they volunteered or attended meetings of clubs and organizations. The first two items were combined into an informal social activity index and the latter two were combined into a civic activity scale. These two items along with the measure of friend visiting were regressed on the same set of predictors used above with the results listed in Table 5. <sup>15</sup>

### **INSERT TABLE 5 ABOUT HERE**

People in more affluent places report less visiting with friends and are less civically active than people in less affluent places. In the first two equations predicting social activity, the coefficients for a place's median household income are large and statistically significant. In results that correspond to the findings of Oliver (1999), a curvilinear relationship occurs between place affluence and civic activity: the equations predict that civic activity will rise from the poorest to middle-income communities and then fall sharply in the most affluent places.

Interestingly, the racial composition of a community also relates to social activity. Residents of places with a higher percentage of whites are more likely to visit with friends, score higher on the informal social activity scale, and are more likely to engage in civic activities than people in places with fewer whites. No other place-level characteristics relate to these patterns of social

<sup>&</sup>lt;sup>15</sup>Oliver (1999) reports a curvilinear relationship between place level affluence and civic activity. To test for such a relationship, a quadratic term for the log of median household income was included in the equation. Such non-linear relationships were tested for in other equations and not

activity. And once again, these results are not simply the result of the individual characteristics of the people who live in affluent or whiter places: wealthier and more educated individuals are more likely to be social, while whites are no more social than blacks.

Residents of affluent places report being less socially imbedded than people in middle-income and poor communities. It is difficult, however, to determine whether this lower level of social activity is directly responsible for the poor psychological well being noted above. When the equations predicting depression, life satisfaction, or self-efficacy are re-estimated with controls for social and civic activity included, the negative effects of place affluence remain. In other words, even when their lower socializing is taken into account, people in affluent places are still more likely to be depressed, dissatisfied, and feel powerless than people in less affluent places. Although it seems reasonable to assume that the social isolation of people in affluent places may be a contributing factor to their psychological distress, other factors may also be relevant.

## RETHINKING THE PSYCHOLOGICAL EFFECTS OF SUBURBANIZATION

When thinking about mental health in suburbia, it is important to first be clear about what defines a suburb. In most criticisms, America's suburbs are typically characterized as a single category of place, often in contrast to large cities. Such criticisms belie the tremendous diversity across metropolitan places, both in terms of central cities and suburban areas. For example, many places that the U.S. Census Bureau would designate as a suburb, such as Union, New Jersey, have the gritty, industrial character of a central city. <sup>16</sup> Nor, in contrast to the speculations

found.

<sup>&</sup>lt;sup>16</sup>The Census Bureau counts all places within a metropolitan area that are not part of the central city as a suburb.

of classic urban sociology, are all central cities equally large, dense, or diverse (e.g., Houston or Phoenix versus Chicago). Given this diversity among places, it is better to avoid dichotomizing places along a central city/suburb divide and consider all metropolitan places as similar units of analysis that can be differentiated by several key characteristics. To assess whether "suburbs" cause psychological distress, it is important to analyze how the characteristics that differentiate all places in America's multi-faceted metropolitan areas (such as population size, land-use, density, etc.) each separately shape mental health.

Looking at the data from the ACLS, two important characteristics that differentiate metropolitan places are related to their residents' self-reported psychological well being. The first is population density. People in places with a higher population density report less satisfaction with their surroundings, feel less safe, and are more likely to report feelings of depression than people in less dense environments. Of course, dissatisfaction with the physical surroundings is not the sole cause of depression in dense settings - people in larger places and more residentially predominant places also express dissatisfaction with their neighborhoods but are no more likely to be depressed. Nevertheless, being surrounded by more people in a small space does correspond with greater emotional distress. While this finding may seem to contradict the speculations of "new urbanist" architectural critics (e.g., Calthorpe), it should be acknowledged that the density scale reported in this paper goes far beyond what is typically proposed in their urban design plans. Furthermore, it must also be realized that the critique of low suburban housing density has been based solely on speculation and that a long sociological tradition that predates the "new urbanist" writings views high levels density as a detriment to mental health (e.g., Wirth 1939).

The second, and by far, more consistent environmental determinant of psychological well

being is place affluence, only the direction of this effect is quite surprising. Although it might be expected that impoverished places would take the greatest psychological toll, the data here reveal just the opposite – residents of affluent places reported the highest levels of depression, the greatest dissatisfaction with life, and the lowest sense of self-efficacy and esteem. Unlike any of the other place-level characteristics, the effects of affluence are evident across all of the indicators of psychological well being. And, these effects occur in spite of the fact that people in more affluent places both feel greater satisfaction and safety in their communities and are more likely, by virtue of their individual education and income levels, to be less psychologically aggrieved. The most likely explanation for these quite surprising results is the social dislocation engendered within affluent places. As illustrated in Table 5, people in affluent settings are less likely to visit with friends and take part in voluntary or civic activities. Although the data are not conclusive, this social estrangement appears to be the best explanation for the consistently low levels of life satisfaction, happiness, and efficacy among residents of affluent places.

Thus, as a whole, "suburbs" are not any more psychologically damaging than the places that get grouped together as "cities." Most of the place-level characteristics thought to differentiate suburbs, i.e., residential land-use, low population density, and racial homogeneity, have no consistent relationship to the multiple indicators of mental health and well being. Psychological malaise is only related to one characteristic that could be described as "suburban," affluence, and it is a characteristic relevant to only a minority of suburban places.

The interesting question to come from these findings is why are residents of more affluent communities psychologically distressed and socially estranged? Although the answer to this question awaits further research, one factor to be considered is the social isolation that is inherent in economic exclusion of an affluent place. Cities and suburbs are political creations

and many affluent places were incorporated by the middle and upper classes in order to shield themselves from sharing political power or public services with poorer residents of the metropolitan area (Teaford 1979). Through exclusionary zoning, deed restrictions, and other measures, affluent places effectively bar residence to the majority of people in the greater metropolitan area and make their affluent residents feel politically distinct (Danielson 1976). This type of segregation may foster a culture of mistrust, separateness, and privatization. As Baumgartner (1988) found in her ethnography of an affluent suburb, residents internalized a norm of isolation and "moral minimalism." The sense of separation, malaise, and alienation that so many writers and artists perceive in suburban life, may actually arise from the social isolation in such affluent places. <sup>17</sup> Ironically, in isolating themselves from the greater metropolitan community with zoning restrictions and other mechanisms of exclusion, residents of affluent communities may also create a culture of isolation that undermines their own psychological well being.

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<sup>&</sup>lt;sup>17</sup> Although income-wise, poor places are as economically segregated as affluent ones, the residents of poor places typically are not segregated by choice but by financial circumstance. Consequently, the social homogeneity of a poor community does not reflect the aggregate choice of its residents for separation and exclusion but simply their limited housing options. Indeed this difference is readily apparent with any casual comparison of the street life between poor and rich places: most low-income places have much higher levels of public intercourse. Conversely, it is only the collective act of separation that enables the affluent place to sustain its social homogeneity.

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## APPENDIX A - CODING OF THE VARIABLES

## Measures of Depression

During the in-person interviews, the respondents were given booklets to fill out for personal questions with the following instructions: "Please look at page 2 of the yellow booklet. After each statement, please put an "X" in the answer category that describes how often you felt that way DURING THE PAST WEEK."

- Depressed: In the past week, I felt depressed ....
- Lonely: In the past week, I felt lonely ...
- Sad: In the past week, I felt sad ...
- Happy: In the past week, I was happy ...
  - 1. Hardly Ever
  - 2. Some of the Time
  - 3. Most of the Time

The *CES-D Index of Depression* included these items plus measures of whether everything was an effort, [repondent] felt that there were people who really understood him/her, sleep was restless, people were unfriendly, [respondent] enjoyed life, [respondent] did not feel like eating, [respondent] felt that people disliked him/her, and [respondent] could not get going.

## Measures of Life Satisfaction

General Life Dissatisfaction: Now please think about your life as a whole. How satisfied are you with it:

- 1. Completely Satisfied
- 2. Very Satisfied
- 3. Somewhat Satisfied
- 4. Not Very Satisfied
- 5. Not At All Satisfied

These are the Best Years: How much do you agree with the following statement "These are the Best Years of my life."

- 1. Strongly Agree
- 2. Agree Somewhat
- 3. Disagree Somewhat
- 4. Strongly Disagree

## Measures of Self-Efficacy and Esteem

Self-Esteem Index: Constructed from Three Items:

- I take a positive attitude toward myself
- At time I think I am no good at all (reverse coding)
- All in all, I am inclined to feel that I am a failure (reverse coding)

Self-Efficacy Index: Includes the three items from the self-esteem index plus

- I can do just about anything I really set my mind to do
- Sometimes I feel that I am being pushed around in life (reverse coding)
- There is really no way I can solve the problems I have (reverse coding)

Low Self-Efficacy Index: Built from the following four times

- At time I think I am no good at all
- All in all, I am inclined to feel that I am a failure
- Sometimes I feel that I am being pushed around in life
- There is really no way I can solve the problems I have

### All items scored:

- 1. Strongly Agree
- 2. Agree Somewhat
- 3. Disagree Somewhat
- 4. Strongly Disagree

## Neighborhood Satisfaction and Safety

*Neighborhood Dissatisfaction*: What about your neighborhood - how satisfied are you with your neighborhood?

- 1. Completely Satisfied
- 2. Very Satisfied
- 3. Somewhat Satisfied
- 4. Not Very Satisfied
- 5. Not At all Satisfied

*Neighborhood Safety*: How true is the following statement about your neighborhood: this is a neighborhood where I feel safe from personal attacks. Is this

- 1. Very True
- 2. Mostly True
- 3. Somewhat True
- 4. Not At All True

## Formal and Informal Social Connections

*Visit with Friend*: How often do you get together with friends, neighbors or relatives and do thinkgs like go out together or visit in each other's homes:

- 1. Never
- 2. Less than Once a Month
- 3. About Once a Month
- 4. 2 or 3 Times a Month
- 5. Once a Week
- 6. More than once a week

*Informal Social Index:* combined visit with friend measure with measure of phone contact: In a typical week, about how many times do you talk on the telphone with friends, neighbors, or relatives? (Same scoring as visit with friend).

*Civic Activity Scale*: Combined measure of meeting attendance (How often do you attend meetings or programs of groups, clubs, or organizations that you belong to? - same scoring as visit with friend) with variable of whether the respondent reported volunteering for churches and educational, civic, or educational organizations.

<u>Place Traits:</u> The variables were extracted from the U.S. Bureau of Census, Summary Tape File 3, Place level characteristics:

*Size*: 1 (less than 10,000) 2 (10,000 to 24,999) 3 (25,000 to 49,999) 4 (50,000 to 99,999) 5 (100,000 to 249,999) 6 (250,000 to 499,999) 7 (500,000 to 1 million) 8 (greater than 1 million).

*Density*: Number of people / area of place in square miles.

Log Median Household Income. This is the log to base 10 of the median household income. Its value ranges from .09 to .94.

*Median Building Age*: Calculated by the Census Bureau, its value ranges between 0 and 40, for particular years. Places with a median building age over 40 years old were counted as 40.

Percent White: Population of non-Hispanic whites / Total Population.

Percent Commuting: Percent working outside of place of residence/ percent working.

## **Individual Traits:**

Age: 1 (24-34) 2 (35-44) 3 (45-54) 4 (55-64) 5 (65-74) 6 (75 and older).

Education: In years 1 (0-8) 2 (9-11) 3 (12) 4 (13-15) 5 (16) 6 (17 or more).

Family Income: 1 (less than \$5k) 2 (\$5-9.9k) 3 (\$10-14.9k) 4 (\$15-19.9k) 5 (\$20-24.9k) 6 (\$25-

29.9k) 7 (\$30-39.9k) 8 (\$40-59.9k) 9 (\$60-79.9k) 10 (\$80k or more). *Length of Residence*: Live in Place more than two years = 1, else = 0.

Appendix B – Size, Density, and Income Distribution of the Places in the ACLS Sample

#	Population Size	#	Density	# Median Hsehld. Inc.
22	under 5,000	17	under 500/sq. mi.	20 under \$20,000
61	5k – 25k	70	500 – 1,000/sq. mi. 110	\$20,000 - \$35,000
68	25k – 100k	62	1,000 – 2,000/sq. mi. 60	\$35,000 - \$50,000
27	100k - 250k	36	2,000-3,000/sq. mi. 18	\$50,000 - \$75,000
32	over 250k	25	over 3,000/sq. mi. 2	over \$75,000

Source: 1990 Census, Sample of 210 Places from American Changing Lives Survey

Table 1

The Effects of Metropolitan Place Characteristics on the Emotional Correlates of Psychological Well being

Place Traits	LONELY	DEPRESSED	SAD	НАРРУ	CES-D DEPRESSION INDEX
Size Density Log Med. Hse. Inc. Med. Building Age Percent White Percent Commuting	,	01) .001 (.002) 34)157 (.087)	008 (.010) .023 (.009)** .374 (.134)** .001 (.002) 002 (.084) 134 (.082)	.017 (.011) 024 (.009)** 260 (.130)** 000 (.002) .083 (.087) .077 (.085)	032 (.018) .028 (.015)** .698 (.229)** .002 (.003) 248 (.144) 241 (.141)
Individual Traits Age Black Education Family Income Female Married Length of Residence	097 (.08 028 (.03 021 (.00 .065 (.02 296 (.02	09)**048 (.009)** 31) .042 (.083) L1)**042 (.011)** 07)**050 (.006)** 27)** .101 (.028)** 29)**076 (.030)** 31)056 (.032)	030 (.009)** .034 (.081)042 (.011)**026 (.006)** .127 (.027)**094 (.029)**	.018 (.009)** .044 (.084) .021 (.011) .017 (.006)**024 (.028) .089 (.031)** .093 (.032)**	085 (.015)**016 (.138)092 (.019)**084 (.016)** .140 (.046)**227 (.050)**159 (.053)**
<u>Interaction Terms</u> Black X Per. White	.260 (.13	36)006 (.142)	047 (.137)	151 (.142)	.291 (.234)
R-squared ncases	.089 2168	.088 2135	.086 2135	.085 2135	.132 2135

Source: 1986 American Changing Lives Survey/1990 U.S. Census \*\* p < .05

TABLE 2

The Effects of Metropolitan Place Characteristics on Self-Assessments of Life Satisfaction and General Happiness

		l Life isfaction	Feel These Are Best Years	
Place Traits Size Density Log Med. Hse. Income Med. Building Age Percent White Percent Commuting	.044 .587 .008 179	(.240)** (.003)** (.151)	.004 (.019) .004 (.016) 700 (.247)** 006 (.003) .240 (.156) .108 (.152)	
Individual Traits Age Black Education Family Income Female Married Length of Residence	.064 .020 060 .003 096		092 (.016)** .018 (.148)047 (.021)** .055 (.011)** .012 (.049) .066 (.032)** .074 (.057)*	
<u>Interaction Terms</u> Black X Per. White	.161	(.245)	.015 (.253)	
R-squared ncases	.061 2190		.040 2190	

Source: 1986 American Changing Lives Survey/1990 U.S. Census \*\* p < .05  $\,$ 

Table 3

The Effects of Metropolitan Place Characteristics on Feelings of Self-Efficacy and Self-Esteem

Self-Efficacy Index	Self-Esteem Index	Low Self-Efficacy Index
.032 (.018)	.024 (.018)	021 (.017)
.003 (.015)	010 (.015)	.006 (.015)
, ,	· · · · · · · · · · · · · · · · · · ·	.631 (.221)**
· ,	,	, ,
· ,	, ,	• •
.214 (.139)	.111 (.138)	145 (.136)
.055 (.015)** .063 (.135)	.029 (.014)** .155 (.135)	133 (.133)
, ,		
071 (.048)	098 (.045)**	
.028 (.050)	.066 (.032)	.002 (.049)
.085 (.052)	.132 (.052)**	113 (.051)
.071 (.230)	187 (.413)	.253 (.226)
.048 2190	.073 2190	.087 2190
	Index  .032 (.018) .003 (.015)683 (.225)**003 (.002) .091 (.142) .214 (.139)  .055 (.015)** .063 (.135) .068 (.019)** .059 (.011)**071 (.048) .028 (.050) .085 (.052)  .071 (.230) .048	Index  .032 (.018) .003 (.015)683 (.225)**003 (.002) .091 (.142) .214 (.139)  .055 (.015)** .063 (.135) .068 (.019)** .059 (.011)** .059 (.011)** .071 (.048) .085 (.052)  .071 (.230) .073

Source: 1986 American Changing Lives Survey/1990 U.S. Census \*\* p < .05

Table 4

The Effects of Metropolitan Place Characteristics on Feelings of Neighborhood Satisfaction and Safety

	Unsatisfied wit Neighborhood		Feel Unsafe in Neighborhood	
Place Traits Size Density Log Med. Hse. Inc. Med. Building Age Percent White Percent Commuting	.000 (.003) 033 (.151)	** .046 **487 .003 170	(.134)	
Individual Traits Age Black Education Family Income Female Married Length of Residence	.031 (.020) 035 (.012) .089 (.048) 030 (.053)	.209 001 **041 .122 069	(.018) (.011)** (.045)** (.047)	
Interaction Terms Black X Per. White	.188 (.245)	060	(.217)	
R-squared ncases	.095 2182	.156 2182		

Source: 1986 American Changing Lives Survey/1990 U.S. Census \*\* p < .05  $\,$ 

Table 5

The Effects of Metropolitan Place Characteristics on Patterns of Social Interaction and Civic Activity

	Visit with	Informal Social	Civic Activity
	Friend	Activity Index	Scale
Place Traits		•	
Size	.030 (.027)	.003 (.018)	003 (.006)
Density	.008 (.022)	014 (.015)	005 (.015)
Log Med. Hse. Inc.	839 (.339)**	536 (.228)**	4.205 (2.51)*
Log Hs. Inc. Sq.			478 (.280)*
Med. Building Age	003 (.004)	.004 (.002)	000 (.001)
Percent White	.991 (.214)**	.611 (.143)**	.104 (.049)**
Percent Commuting	.304 (.209)	.258 (.140)	.050 (.047)
<b>Individual Traits</b>			
Age	052 (.022)**	009 (.015)	.009 (.005)*
Black	117 (.204)	.012 (.137)	.072 (.046)
Education	.058 (.028)**	.089 (.019)**	.074 (.006)**
Family Income	.031 (.011)	.032 (.011)**	.015 (.004)**
Female	.077 (.048)	.309 (.046)**	.071 (.015)**
Married	289 (.075)**	170 (.032)**	.039 (.017)**
Length of Residence	.085 (.079)	.016 (.053)	.052 (.018)
<b>Interaction Terms</b>			
Black X Per. White	287 (.346)	324 (.233)	.007 (.079)
R-squared	.052	.078	.141
ncases	2189	2189	2189

Source: 1986 American Changing Lives Survey/1990 U.S. Census \*\* p < .05