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Urban Planning, Transportation, and Land-use Planning:
The Effects on Attitudes and Political Behaviors

Abraham Goldberg

Dissertation submitted to the
Eberly College of Arts and Sciences
at West Virginia University
in partial fulfillment of the requirements
for the degree of

Doctor of Philosophy
in
Political Science

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2009

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Environment, Community Design
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ABSTRACT

Urban Planning, Transportation, and Land-use Planning: The Effects on Attitudes and Political Behaviors

Abraham Goldberg

Public policy decisions made across levels of government have an effect on the way in which cities and city neighborhoods are built and maintained. Places vary in several ways including by the level of diversity or uniformity of the types of available amenities, transportation options, cleanliness, safety, affordability, and the availability of basic services. A growing body of literature, through empirical research, demonstrates that these variations affect several domains of people's lives. Personal health, the natural environment, and social capital have all been linked to characteristics of the built environment and attributes of the public realm. In line with this body of literature, the present dissertation examines how individual happiness, social connections, civic pride, and community satisfaction are associated with the way in which cities are designed and maintained. Further, overall voluntary political activity among residents is explored to determine how it may be affected by the types of places in which people live.

Using two unique data sets, this dissertation empirically demonstrates that place matters. People who agree that their cities allow easy access to cultural and leisure facilities, libraries, and provide convenient public transportation are happier. The same is true for those who believe that their city is a beautiful, that it is a good place to raise children, and who agree that it is affordable. These findings are significant even when accounting for other factors associated with happiness.

Social connections and connections to place are also significantly affected by the built environment and the conditions of the public realm. People feel more connected to each other and to their cities when they are provided with accessible amenities and when the public realm is safe, aesthetically agreeable, and affordable enough to allow them to engage society. These findings are consistent across 10 different cities in North America, Europe, and Asia.

Finally, political participation is found to be associated with characteristics of the built environment. Accounting for past research and controlling for factors such as socio-economic status and political engagement, political participation is significantly related to the walkability of a neighborhood. People are more active in politics when living in places that are pedestrian-oriented and mixed-use, all things being equal. This dissertation project presents a direct relationship between the built environment and political participation, and an indirect relationship as mediated by mobilization.

The implications of this research are instructive to academics, policy makers, and urban community planners. Such implications, along with avenues for future research based upon these findings, are presented.

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Chapter 1

I. Introduction

All cities and city neighborhoods are different. They vary by size, location, surrounding natural environment, governance, and history. They also vary by layout, available amenities, composition, and transportation options. The urban and community planning literature refers to this as the built environment (Jacobs, 1961; Kunstler, 1996; Beatley & Manning, 1996; Duany, Plater-Zyberk, & Speck, 2000; Oliver, 2001; Smart Growth Network, 2002; Leyden, 2003; Kawachi & Berkman, 2003; Frumkin, Frank, & Jackson, 2004). Research on the built environment examines how the communities we plan and build affect our lives. Of particular importance is land-use planning decisions and the transportation infrastructure of cities and city neighborhoods. Everyday thousands of land-use and transportation planning decisions are made by appointed or elected officials of various types and of various levels of government. The consequences of these decisions, which shape the built environment, are extensive and can profoundly affect the quality of peoples' lives.

In regards to land-use planning, places can be characterized by the diversity or uniformity of the types of places in a given area. Places referred to as "mixed-use" incorporate a diversity of housing types, shops, restaurants, pubs, businesses, places of worship, parks, schools, and public buildings within the same geographic area of a city (Jacobs, 1961, Beatley & Manning, 1996; Smart Growth Network, 2002, Leyden, 2003; Frumkin, Frank, & Jackson, 2004). It is a high-density form of city design. The opposite end of the land-use spectrum is referred to as "single-use" (Beatley & Manning, 1996; Duany, Plater-Zyberk, & Speck, 2000; Kawachi & Berkman, 2003;

Frumkin, Frank, & Jackson, 2004). Single-use development segregates these amenities from each other into different geographic areas of a city or zones (Ezell, 2004). They are divided by function where housing is in one zone and shopping is in another. It is a low-density form of city design.

Related to land-use is transportation planning and infrastructure. Mixed-use places are accessible by walking, biking, public transit, and private automobile (Beatley & Manning, 1996; Cervero, 1998; Smart Growth Network, 2002; Leyden, 2003; Frumkin, Frank, & Jackson, 2004). This is referred to as “multi-modal” transportation (Smart Growth Network, 2002). Multi-modal transport is prevalent in mixed-use places because of their high-density. When daily needs are located within a similar geographic area, transportation options such as walking and biking are a practical mode of transport. Therefore, mixed-use places typically foster accessible and safe sidewalks and an active sidewalk life (Jacobs, 1961). This is also referred to as walkability (Smart Growth Network, 2002; Leyden, 2003; Frumkin, Frank, & Jackson, 2004). Sidewalks alone do not guarantee a walkable city neighborhood. Walkability encompasses other factors such as the availability of destinations along the sidewalk, safety, and interesting surroundings. (Jacobs, 1961; Smart Growth Network, 2002).

Accessibility to single-use places is typically limited to the private automobile as the primary mode of transportation (Cervero, 1998; Duany, Plater-Zyberk, & Speck, 2000; Frumkin, Frank, & Jackson, 2004). This is referred to as “car-dependency”. People are dependent on the ability and means to own and operate an automobile in order to gain access to society in places characterized as single-use.

Due to the spatial distance between single-use places, walking and biking are not practical means of transportation. Public transit options are also typically limited in single-use development as it loses its efficiency when covering larger amounts of space (Cervero, 1998). Therefore, there is a greater emphasis on roads without safe, usable sidewalks.

Examining the built environment in such a way creates two opposing ends of a spectrum. On one end of the spectrum is a mixed-use, multi-modal built environment. Such places are typically found in traditional downtowns and surrounding neighborhoods. Good examples of mixed-use, multi-modal built environments include the Upper East Side of New York City and the historic downtown district of Charleston, South Carolina.

The opposite end of the spectrum is a single-use, car-dependent built environment. Being that this type of built environment is a relatively new invention; such places are typically found in new areas of cities and city neighborhoods (Duany, Plater-Zyberk, & Speck, 2000). They are recognizable by housing subdivisions, strip malls, large parking lots, and big-box retail chains.

Not all neighborhoods can be conveniently described as one type of built environment or the other. In some cases, places share components of both ends of the built environment spectrum. Transportation options in particular can be dependent on the perceptions of people who live in different places.

Variation of the built environment of cities and city neighborhoods is not without consequence. There is a growing realization across many academic disciplines that the built environment can affect the environmental, financial, social,

physical, and psychological well-being of cities and the people who live there (e.g., Beatley & Manning, 1996; Putnam, 2000; Duany, Plater-Zyberk, & Speck, 2000; Dreier, Mollenkopf, & Swanstrom, 2001; Oliver, 2001; Kawachi & Berkman, 2003; Leyden, 2003; Saelens et al., 2003; Frumkin, Frank, & Jackson et. al, 2004). For example, Frank et. al. (2000) examine air quality and demonstrate that single-use, low density built environments predict greater levels of nitrogen oxide and carbon monoxide in the air because of higher levels of driving. Saelens et. al. (2003) show that people living in high density, mixed-use neighborhoods are less likely to be overweight than those living in lower density, single-use built environments. There is a marked difference in the amount of functional walking that occurs between the different types of neighborhoods. Doyle et. al. (2006) links walkability to body mass index by finding that residents living in walkable places have lower body mass indexes than people in less walkable places.

In line with this growing body of literature, this dissertation is composed of three empirical chapters that collectively explore the affects of the built environment on attitudes and political behaviors. The relationships addressed within these chapters have been hypothesized by the work of others; however, the well of empirical tests is fairly dry. The first empirical chapter will examine subjective well being, or happiness. This chapter hypothesizes that the built environment of cities and city neighborhoods has an affect on the individual happiness of residents. The second empirical chapter will examines how the built environment affects how connected people feel to other residents in their city, how proud they are to live in their city, and how satisfied they are with life in their city. These factors are closely related to what

social psychologists have defined as a “sense of community” (McMillan & Chavis, 1986; see also Chavis & Pretty, 1999; Chipuer & Pretty, 1999; Bow & Buys, 2003; Peterson, Speer, & Hughey, 2006; Tartaglia, 2006; Pretty et. al., 2007). The third empirical chapter examines the effects of the built environment on local political participation. As with the other two empirical chapters, this chapter will hypothesize that the built environment of the neighborhoods in which people live affects the likelihood and extent to which they participate in politics. The hypotheses of all three chapters are grounded in the literature and care is taken to control for other predictors that have been found to be associated with the dependent variables.

A key component of this research is a connection that people feel towards others in their city and with the city itself. Social and community connections are linked to happiness (Helliwell & Putnam, 2005), sense of community (Talen, 1999), and political participation (see Verba, Schlozman, & Brady, 1995; Putnam, 2000; Leyden, 2003; Rosenstone & Hansen, 2003). Scholars have suggested that multi-modal, mixed-use development is important for fostering important connections (Jacobs, 1961; Oldenburg, 1989; Beatley & Manning, 1996; Talen, 1999; Duany, Plater-Zyberk, & Speck, 2000; Putnam, 2000; Smart Growth Network, 2002; Leyden, 2003). Such development spawns a vibrant public realm that encourages chance face to face interactions among residents (Jacobs, 1961; Beatley & Manning, 1996; Putnam, 2000). Face to face interactions create a public trust that is crucial for social and community connectedness (Jacobs, 1961; Beatley & Manning, 1996; Putnam, 2000; Leyden, 2003).

Conversely, it has been argued that a single-use, car-dependent built environment has a negative affect on social and community connections (Talen, 1999; Putnam, 2000; Duany, Plater-Zyberk, & Speck, 2000; Frumkin, Frank, & Jackson, 2004). This type of development encourages a fragmentation of society. Places are segregated from each other based upon their primary functions. People are segregated from each other in private automobiles. The nature of car-dependency deemphasizes the value of walkable sidewalks and the face to face interactions that they cultivate. People do not experience valuable face to face interactions in private automobiles. This can create an unhealthy public realm and can have a negative affect on the public trust that is so important for building social and community connections (Beatley & Manning, 1996; Duany, Plater-Zyberk, & Speck, 2000; Putnam, 2000; Leyden, 2003).

Along with social and community connections, and the built environment, the conditions of the city can affect quality of life factors (Jacobs, 1961; Smart Growth Network, 2002; Doyle, et. al, 2006; Florida, 2008). This research will consider the independent affects that local economic conditions, city aesthetics, basic services, safety from crime and accidents, and opportunities to comfortably raise a family can have on attitudes and behaviors. It will also take into account demographic factors that may affect the dependent variables. Taken together, these three empirical chapters hypothesize that, all things being equal, happiness, social connections and connection to place, community satisfaction, and political participation are dependent upon built environments that encourage social and community connections and maintain a healthy public realm. Multi-modal, mixed-use development creates a healthy public realm because its design fosters the face to face interactions that inspire

a sense of public trust. I expect to find that people who live in places characterized by mixed-use amenities and walkability are happier, have a greater sense of community, and are more likely to participate in politics than residents of car-dependent, single-use neighborhoods, all things being equal.

This research has implications for both policy makers and scholars. It is public policy that guides the work of developers, builders, and planners. If the hypotheses are supported through rigorous statistical analyses, policy makers should reevaluate old and consider new land-use policies to guide the practices of urban planners. Currently, the built environment is a policy area that maintains a strong bias towards decisions that favor single-use, car-dependent development (Lewis, 1996; Nivola, 1999; Baxadall & Ewen, 2000; Duany, Plater-Zyberk, & Speck, 2000; Smart Growth Network, 2002; Frumkin, Frank, & Jackson, 2004). The findings of this dissertation may call these city planning practices into question.

While state and local policies are often the venue for land-use decisions (Shuman, 1996; Lewis, 1996; Duany, Plater-Zyberk, & Speck 2000; Smart Growth Network, 2002; Williamson, et. al., 2006), three federal policy decisions have received attention for providing a framework that encourage such biases. The first decision came from the Supreme Court in 1926. In the case of *Village of Euclid vs. Amber Realty Company*, the Court “validated the concept of zoning” (Frumkin, Frank, & Jackson, 2004). Zoning puts limitations on how private property can be used by property owners. Zoning policy codifies single-use development and makes it illegal in many cities to build a multi-modal, mixed-use neighborhood. The second policy decision was the federal government’s decision to involve itself in the home mortgage

market. Baxandall and Ewen (2000) chronicle the establishment of the Federal Housing Administration in 1934 which encouraged homeownership by insuring banks on housing loans and “provided low-interest, long-term (twenty five to thirty years) mortgages, loaning up to 80 percent of a home’s value” (p. 57). Frumkin, Frank, and Jackson (2004) maintain that this policy “hastened the decay of older urban neighborhoods” by promoting the new construction of single-family over multi-family projects, discouraging repair of older urban areas through low repair loans, and a biasing appraisals of older urban areas (p. 39). The third decision, the National Defense Highway Act of 1956, paved the way for an interstate highway system which is described as “the single largest construction project in U.S history” (Levy, 2000). This decision encouraged the fragmentation of society and provided a fatal blow to a number of public transit opportunities (Cervero, 1998; Levy, 2000).

These three decisions were responses to public problems that required a policy response. Zoning was established to keep the harmful emissions of industry away from places of residence (Frumkin, Frank, & Jackson, 2004). Government intervention into the home mortgage market sought to improve housing conditions and stimulate a depression era economy (Baxendall & Ewen, 2000; Levy, 2000). The interstate highway system was built to “strengthen the economy of the city by providing better access to the city’s central business districts both from other cities and from the city’s hinterlands” (Levy, 2000; p. 289). A built environment that has negative affects on society may be an unintended consequence of such policies. New research, such as the dissertation presented here, has the ability to redefine the societal outcomes of past policy decisions such as those presented above. There is a consistent

need to reevaluate the merits of such policy decisions. The built environment may present a new public problem for new policies to address. If variations in the built environment are responsible for systematic variations in individual happiness, social and community connections, community satisfaction, and political participation, then it may require that policy makers consider policies that encourage more responsible forms of city and city neighborhood planning.

Looking through the lens of the public policy subsystem literature, an argument could be made that finding negative implications associated with single-use, car-dependent development may not be enough to change the way the cities and city neighborhoods are built and designed. The policy subsystem literature can be applied to the built environment literature to further explain why this type of development remains so common in cities across the United States. Suburban sprawl, as a planning model, provides short-term financial and political benefits to a small, yet powerful group of actors that have dominated urban planning in the United States (Beatley & Manning, 1996; Lewis, 1996; Duany, Plater-Zyberk, & Speck, 2000; Stiglitz, 2006). This group, which includes land developers, builders, the automobile and oil industries, the road building industry, big-box retailers, restaurant chains, and elected officials, maintain a political and financial incentive to continue building new developments rather than maintaining older, more traditional neighborhoods. One prominent U.S. Senator admits that “the bottom line is that routine but important things like maintenance always get shortchanged because it’s nice for somebody to cut a ribbon for a new structure” (Saulny & Steinhäuser, 2007). It is the developers and

builders of course that receive the financial benefits associated with new housing developments, strip malls, and roadways (Beatley & Manning, 1996; Lewis, 1996).

Collectively, these actors make up what policy scholars would refer to as a “dominant subsystem” (Thurber, 1991; Worsham 1997). Dominant subsystems are characterized by their stability, the low levels of competition associated with their decision making process, and low levels of political implications associated with such decisions. As a result, the issues that dominant subsystems address sustain a low level of salience (Thurber, 1991; Worsham, 1997). As it stands today, most planning scholars would maintain that this subsystem has been largely unopposed by any sort of economically or politically powerful competitive subsystem (Beatley & Manning, 1996; Duany, Plater-Zyberk, & Speck, 2000).

Dominant subsystems are so strong that they display a sense of equilibrium in the policy making process despite the fact that the citizenry may not find such policy outputs agreeable (Baumgartner & Jones, 1993). Some scholars would argue that the way to create changes in the face of a dominant coalition would be to raise the level of the conflict to include more actors and the scope of the conflict to make the issue more salient (Schattsneider, 1960; Thurber, 1991). When the scope and level of conflict is altered, a political incentive is provided for leaders who choose to join opposing coalitions. The fact that President Obama has openly expressed his opposition to sprawl development may signal the beginning of an important change. As of this writing, however, such expressions have been converted to actionable policy changes on a somewhat limited basis.

It is also important that academic research plays a role in understanding the scope of the policy outcomes associated with planning and policy decisions. In their work on the Advocacy Coalition Framework, Sabatier and Jenkins-Smith (1999) would suggest that policy-oriented learning can help to build an opposing coalition. How much do we really know about the policy outcomes associated with urban and community planning? Are the decisions made by the current dominant policy subsystem agreeable?

This research also has implications for scholars across many different disciplines. The social sciences rely heavily on individual factors to explain human behavior. For example, demographic characteristics and heredity are sometimes referred to as the “usual suspects” in explaining attitudes and behaviors. This research does not suggest that individual characteristics are not important. However, it does demonstrate that context in which people live their lives (i.e. the built environment) can also have important affects. This consideration should be injected into research that seeks to explain why people behave as they do.

II. Why attitudes and behaviors?

The three empirical chapters of this dissertation examine the affects that the built environment has on happiness, connections to others and to place, community satisfaction, and political participation. The relationships proposed in these chapters have been hypothesized by the work of others (see Beatley & Manning, 1996; Talen, 1999; Duany, Plater-Zyberk, & Speck, 2000; Putnam, 2000; Frumkin, Frank &

Jackson, 2004; Helliwell & Putnam, 2005); however, empirical testing has been limited. Research is needed to support (or contest) these relationships.

While happiness, social and community connections, and political participation are important ends in themselves, they have also been linked to other desirable outcomes. Despite being an important end in itself, as well as a basic human right as defined in the Declaration of Independence, Lyubomirsky, King, and Diener (2005) suggest that happiness can lead to future life successes in a number of domains.

Connections to others and to the community are linked to a broad range of individual and societal benefits including feelings of safety (Tartaglia, 2006), strong social support networks (Pretty et. al, 2007), and has been found to predict the likelihood that neighbors will work together to attempt to solve community issues (Taylor, 1996; Chavis & Pretty, 1999). Social connectedness is also an indicator of social capital which has been linked to education and welfare, economic prosperity, personal and community safety, and public health (Putnam, 2000). Political participation has been linked to government responsiveness (Verba, Schlozman, & Brady, 1995; Rosenstone & Hansen, 2003; Martin, 2003) and benefits such as social gratifications and providing the feeling the people did their duty (Verba, Schlozman, & Brady, 1995).

The function of the American democracy is dependent on political participation. Delli-Carpini and Keeter (1996) suggest that “participation is intended to serve a number of functions: the protection of private interests, the selection of competent leaders, the expression of the public good, and the making and implementing of public policy” (p. 40).

This research focuses on happiness, connections to others and to place, and political participation with the understanding that they represent normatively positive attitudes and behaviors. Past research has demonstrated that they predict other desirable outcomes. The dependent variables will be discussed in more detail within each empirical chapter of this dissertation.

Chapter 2

I. Introduction

Happiness research is experiencing a renaissance in the social sciences. Scholars from a multitude of disciplines are undertaking the task of understanding what promotes our subjective well-being or happiness. Although with no shortage of controversy (Duncan, 2008), the findings associated with this research have been used to formulate “happiness policies” aimed at increasing the aggregate level of happiness among people of a given nation (Frey, 2008). Some have argued that great societies should be judged by the happiness of the people (Layard, 2005).

Research on happiness can be tricky. The dependent variable of focus in this chapter has been described as an “elusive concept” (Frey & Stutzer, 2002; p. 4). The social sciences struggle to measure and predict an idea that is not fully understood. This lack of understanding is certainly not due to a lack of attention on the subject matter. It would appear that one constant throughout the history of the world is that great thinkers have sought to explain happiness. This chapter follows the lead of the new breed of economists, psychologists, sociologists, and political scientists who believe that articulating the best- or even most suitable- definition of happiness should remain in the domain of philosophers. Frey and Stutzer (2002) maintain that for social scientists in the study of happiness “a useful way out” is to “ask the individuals how happy they feel themselves to be” and assume “that they are the best judges of when they are happy and unhappy” (p. 4). Bruni and Porta (2007) conclude that happiness “is not generally *defined*, but empirically *measured*, on the basis of the answers to questionnaires” (p. xvii). Layard (2005) describes happiness as “feeling good-enjoying life and wanting the feeling to be maintained” (p. 12). Again, while Aristotle

may contend this definition, it will have to remain suitable for research in the social sciences.

If the object of the limitations associated with the happiness research renaissance has been its struggles in definition, its strengths have rested in its ability to model the concept. Survey research techniques have afforded social scientists the ability to statistically model happiness. Scholars have been able to identify independent variables that reliably and consistently affect happiness (e.g. Frey & Stutzer, 2002; Huppert, Baylis, & Keverne, 2005; Layard, 2005; Bruni & Porta, 2007; Zidansek, 2007; Holder & Coleman, 2007; Winkelmann, 2008; Frey, 2008; Chaplin, 2008; Koopmans, et. al., 2008; Holder Coleman, & Wallace, 2008; Martikainen, 2008).

The next section of this chapter will analyze the major findings of the happiness research and determine how such findings stack up with the 2008 Quality of Life survey. The 2008 Quality of Life survey collected data from residents in 10 major metropolitan cities by the Gallup Organization. The participating cities were New York, London, Paris, Stockholm, Toronto, Milan, Berlin, Seoul, Beijing, and Tokyo. The survey was administered for the National Academy of Sciences under the auspices of the Seoul Metropolitan Government and the Seoul Welfare Foundation. Random samples of 1000 people in each city were included. The data were collected in late 2007.

The survey measured happiness by asking respondents the following question: *How happy are you now?* Respondents were given 5 choices to respond to this question. The responses were coded in the following manner: 1= very happy; 2 =

somewhat happy; 3 = neither happy nor unhappy; 4 = not very happy; 5 = not happy at all. It is important to note that lower numbers on this happiness scale indicate higher levels of happiness.

II. Major Findings of Happiness Research

Personal income and wealth has been the single most studied factor predicting individual happiness. Past research consistently shows a paradox inherent in this association. The paradox demonstrates that within a given society, income has a positive affect on happiness. However, when aggregate incomes within the society rise over time, happiness remains constant (Frank, 2005; Layard, 2005; Bruni & Porta, 2007). A common conclusion drawn from these findings is that happiness is dependent not necessarily upon objective income, but rather, how much income an individual has compared to another (Frey & Stutzer, 2002; Bruni & Porta, 2007). Studies of happiness; therefore, typically do not inquire about objective income, but rather ask survey respondents to describe their subjective level of income relative to others. The Quality of Life survey asks: *What is the level of your household income?* The 5 choices respondents are presented for this question are coded as follows: 1= very low income; 2 = low income; 3 = middle income 4 = high income; 5= very high income.

Figure 1 supports the finding that people with higher levels of income are indeed happier. Respondents who reported that they are “very happy” have a mean score of 3.04 on the income scale which is just above “middle income”. Respondents who are “not happy at all” have a mean score of 2.35 which is between low and middle income.

Of course at any given time, income is not the only factor that has been shown to predict happiness. Perhaps the most erudite social science investigation of happiness originates from Richard Layard (2005). Using the United States General Social Survey, Layard (2005) describes the “Big Seven” factors that affect happiness among adult populations. Along with financial situation (i.e., income), these include family relationships, work, community and friends, health, personal freedom, and personal values. This section will continue by running through the literature that has addressed the relationship between the “Big Seven” factors and happiness and apply the Quality of Life survey responses where possible.

In light of family relationships, married people, all things being equal, are happier than those who are divorced, separated, widowed, or never having been married (Layard, 2005). Martikainen (2008) finds that marital status and satisfaction with marriage significantly affect general life satisfaction among young adults in Finland. Koopmans et. al, (2008), in a study of older adults, finds that a higher percentage of people who are married and living with their spouse are happier than those who are not, all things being equal. Using the German Socio-Economic Panel, Frey (2008) demonstrates that people are at their happiest in the years that immediately follow a marriage. After this peak, happiness begins to return to a baseline level or set-point (Huppert, 2005). The key mechanism for this return is based upon adaptation (Huppert, 2005; Bruni & Porta, 2007). During a life changing event, there is a bump (or dip depending upon the type of event) in happiness, but people adapt to their new situations (Huppert, 2005; Frank, 2005). As people adapt, their levels of happiness returns to levels they experienced before the event (Huppert, 2005; Frank, 2005; Bruni & Porta, 2007).

The Quality of Life survey asks respondents to indicate their marriage status. Marital status is dichotomized for this chapter with 1= married and 0= never been married, divorced, widowed or other. Figure 2 demonstrates that the greater proportion of the sample who reported being “very happy”, “somewhat happy”, and “neither happy nor unhappy” are married. Meanwhile, over half of those who are “not very happy” and “not happy at all” are not married.

Layard's (2005) third factor affecting individual happiness is work. People who are employed with a secure job are happier than those who are unemployed or employed with an insecure job. Once again, this finding is largely supported within the happiness literature. Winkelman (2008) finds that losing a job has a negative affect on subjective well-being. This finding is not consistent among all segments of the population. Women and people over 45 years old are not as negatively affected by employment loss than others, all things being equal (Winkelman, 2008). Along with marriage, Martikainen (2008) finds a statistically significant relationship between work and happiness. Among young Finnish adults, "occupational status" and "satisfaction with working conditions" affect general life satisfaction.

While the Quality of Life survey does not inquire about personal employment, it does ask respondents to indicate the degree to which they agree or disagree with the following statement: *There are plenty of job opportunities in my city*. The 5 choices respondents are given for this question are coded as follows: 1= strongly agree; 2 =

agree; 3 = neither agree nor disagree; 4 = disagree; 5= strongly disagree. As seen in Figure 3, respondents who report that they are “very happy” have a mean score of 2.37 on their level of satisfaction with job opportunities within their city. **It is important to note that most of the figures presented may appear counterintuitive because of the direction of the slope.** The data used in this chapter, along with the next, maintains the coding of the original data set as determined by the Gallup Organization. The decision to maintain the original coding was made so that this analysis is consistent with other scholars who have employed the same data for other research purposes.

The satisfaction with job opportunities mean score rises, thus indicating less agreement that there are plenty of job opportunities, while going down the happiness categories. Those who reported the lowest level of happiness are also least satisfied with job opportunities.

The fourth of the Big Seven factors is community and friends (Layard, 2005). People are happier if they feel that people in their community can be trusted. Public, or social, trust is a key indicator of social capital (Putnam, 2000). Social capital can be broadly defined as the degree to which people feel connected to others in their community and who actively participate in formal or informal community life. Using the DDB Needham Life Style survey, Robert Putnam (2000) demonstrates that although the direction of causation is unclear, there is a significant relationship between social capital and happiness. Putnam (2000) concludes that “regular club attendance, volunteering, entertaining, or church attendance is the happiness equivalent of getting a college degree or more than doubling your income. Civic connections rival marriage and affluence as predictors of life happiness” (p. 333). In a more recent study, other indicators of social capital are found to be associated with happiness. Throughout the world, Helliwell & Putnam (2005) show that that happiness is significantly related to spending time with friends and neighbors, civic participation, and trust in neighborhoods and in the local police.

Social relationships are also considered in two new studies published in the *Journal of Happiness*. Holder and Coleman (2008) show that among children between the ages of 9 and 12, happiness is affected by having many friends. Further, children are happier when their parents report that the children frequently visit their friends during the week outside of school. In his study on the affects of unemployment on happiness, Winkelmann (2008) demonstrates that although social capital affects happiness, it is not enough to mitigate the negative affects associated with losing a job.

The Quality of Life survey employs two indicators of social capital. These indicators differ from those employed by Layard (2005); however, they are certainly no less important. The survey asks respondents to indicate the degree to which they agree or disagree with the following two statements: *I feel connected to the people who live in my neighborhood* and *there are many opportunities for volunteer activities in my city*. The 5 choices respondents are given for these questions are coded as follows: 1= strongly agree; 2 = agree; 3 = neither agree nor disagree; 4 = disagree; 5= strongly disagree. Figures 4 and 5 show that levels of happiness decline as people feel less connected to others and that disagree that there are many opportunities to volunteer. Those who report that they are “very happy” have mean scores of 2.28 and 1.99 respectively for feeling connected and agreeing that there are many opportunities to volunteer. As each category of happiness declines, so too do the mean levels of satisfaction with both of these social capital indicators. Respondents who are “not happy at all” feel the least connected and are most likely to disagree that there are opportunities to volunteer in their cities.

Layard's (2005) fifth factor is health. Self-assessed health is significantly associated with self-assessed happiness. Among seniors, Koopmans et. al. (2008) find that happiness is associated with chronic disorders and other illnesses. The association between health and happiness is partially dependent upon measurements. Frey and Stutzer (2002) suggest that the strength of the association could be exaggerated as a result. Measuring health subjectively (i.e. self-assessment) has a stronger affect on happiness than objective health (i.e. determined by a doctor). Personality of the survey respondents is taken out of the equation when health is measured objectively and could explain this difference (Frey & Stutzer, 2002). Nonetheless, a link between health and happiness is consistently demonstrated in the literature (Marks & Shah, 2005).

The Quality of Life survey uses self-assessment of health by asking respondents the following question: *How is your health in general?* The 5 choices

given are coded as follows: 1= very good; 2 = good; 3 = fair; 4 = bad; 5 = very bad. Lower numbers indicate that the respondent feels healthier. Figure 6 supports the findings of others. Respondents who reported that they are “very happy” are also the healthiest with a mean health score of 1.72. The mean health scores rise, indicating less healthy, throughout the happiness categories. Those who reported being “not happy at all” had an average health score of 3.12.

Related to health is the accessibility of healthcare. Assuming that health improves with healthcare opportunities, the Quality of Life survey allows this chapter to determine if happiness is associated with accessible healthcare opportunities. The following question is presented to respondents: *It is easy to get good quality healthcare in my city.* The 5 choices respondents are given for this question are coded as follows: 1= strongly agree; 2 = agree; 3 = neither agree nor disagree; 4 = disagree; 5= strongly disagree. Figure 7 shows that people who reported being “very happy”

also reported having the easiest access to quality healthcare with a mean score of 2.37. Those who reported being “not happy at all” reported the highest mean score (3.02), indicating that they agree that at least there is accessible health care.

Personal freedom is Layard’s (2005) sixth factor affecting happiness. In examining the freedoms afforded to people around the world, “quality of government” is measured. This measurement is formulated by considering “rule of law; stability and lack of violence; voice and accountability; the effectiveness of government services; the absence of corruption; and the efficiency of the system of regulation” (p. 70). Aggregate levels of happiness among nations systemically vary by the quality of government (Layard, 2005). This difference is found when comparing all nations of the world and, therefore, all existing forms of government. Democracy breeds happiness (Frey & Stutzer, 2002; Layard, 2005; Frey, 2008).

What about variations of democracy? Frey and Stutzer (2002) examine differences in happiness among residents in the 26 cantons of Switzerland. The cantons systematically vary in the access afforded to residents to the instruments of direct democracy (e.g. referenda). As a result, citizens have different levels of control over their government. The research shows that happiness is significantly associated with empowerment of the citizens. People who live in a canton with higher levels of direct democracy are happier, all things being equal (Frey & Stutzer, 2002; Frey, 2008)

The Quality of Life survey affords the opportunity to examine the association of the perceived quality of government and happiness. There are two items that relate to the quality of government responsiveness to citizen needs and trust in government. Respondents are asked to indicate the degree to which they agree or disagree with each of the following two statements: *The city government does a good job addressing citizen concerns and requests* and *I can trust what my city government does*. The 5 choices respondents were given for these questions were coded as follows: 1= strongly agree; 2 = agree; 3 = neither agree nor disagree; 4 = disagree; 5= strongly disagree. Once again, low scores on these scales indicate that the respondent agrees that the government does a good job addressing concerns and that they trust their government.

Figure 8 and Figure 9 show the mean score of quality of government for each level of happiness. Those who report feeling “very happy” agree more than others that the city government does a good job addressing citizen concerns (mean= 2.82) and that the city government can be trusted (mean= 2.98). The level of agreement declines along with levels of happiness. Those who report being “not happy at all” have a

mean score of 3.63 for agreeing that city government does a good job addressing citizen concerns and a mean score of 3.73 for agreeing that they can trust what their city government does.

Layard's (2005) final major factor associated with happiness is described as personal values. The belief in a higher power is associated with happiness. Also, people who care for others and the world around them are happier (Layard, 2005). In a broader treatment religion's affect on happiness, Frey and Stutzer (2002) support Layard's (2005) finding and maintain that people with religious values may be better able to cope with life's difficulties. Using survey data from Mexico, Garcia et. al. (2007) calculate a religious index composed of "the importance given to G-d and to religion, frequency of prayer and of attendance at religious services, and satisfaction with one's religion" (p. 421). The religious index has a positive statistically significant relationship with happiness. There is also a social benefit to attending religious services (Putnam, 2000; Helliwell & Putnam, 2005; Verba, Schlozman, & Brady, 2005) that can lead to a happier life. Further, behaviors among the religious may promote a healthier lifestyle thus indirectly promoting happiness via health (Frey & Stutzer, 2002). The Quality of Life survey does not afford the opportunity to specifically address this factor of happiness.

Taken together, these "Big Seven" factors and the supporting literature in this section offer the current state of the mainstream happiness literature. Despite variations in measurement, all seven factors are consistently supported. Where possible, the Quality of Life survey data provides further evidence of their associations with happiness. Not addressed in the discussion of these factors is causation. It is unclear whether the directional arrows point from the "Big Seven" to happiness or the reverse. Are people happy because they are healthy or are they healthy because of their happiness? Although it is implied in most studies that outside forces (such as the

Big Seven) have an affect on happiness, a meta-analysis of the happiness literature makes the argument that “happiness is associated with and precedes numerous successful outcomes” (Lyubomirsky, King, & Diener, 2005; p. 803). Problems associated with causation do not necessarily impede this research. Although cross-sectional research methods do not untangle the directional arrows, the power of this research lies in the understanding that there is a systemic variation between happiness and many domains of our lives.

It is also clear that the “Big Seven” factors are not mutually exclusive. Married couples might have a larger household income because there are two people contributing. Social capital is associated with personal health (Putnam, 2000; Helliwell & Putnam, 2005). The interrelationships of these factors abound. In order to understand the independent affects of each variable (while controlling for the others), a more sophisticated statistical analysis is necessary.

The dependent variable of concern is happiness with responses being ranked from 1= very happy to 5 = not happy at all. Since this presents an ordinal variable, and the differences between each category are unknown, an ordered logit regression model is appropriate (Long & Freese, 2003). An ordered logit model presents maximum likelihood estimates, which “are the values of the parameters that have the greatest likelihood (i.e., the maximum likelihood) of generating the observed sample of data if the assumptions of the model are true” (Long & Freese, 2003; p. 68). Ordered logit models provide log-odds regression coefficients. The log-odds can be interpreted by demonstrating that “for a one unit increase in the predictor, the response variable level is expected to change by it respective regression coefficient in the

ordered log-odds scale while other variables in the model are held constant” (UCLA Academic Technology Services, 2009). A z-statistic is used to determine the statistical significance of each coefficient. A constant is not reported in ordered logit models because Stata automatically standardizes the intercept to 0. Therefore, interpretation of the value for each city control variables is how it differs from the omitted category. The omitted category for this model, and for all ordered logit models in this chapter and the next is Seoul.

Table 1 presents a happiness model using the “Big Seven” factors addressed above. Differences that may exist amongst the cities that participated in the Quality of Life survey are accounted for.

Table 1

Ordered Logit Model Predicting Happiness with the “Big Seven” Factors
(1= Very Happy; 5 = Not Happy at All)

“Big Seven” Factors	Coefficient	z
Income (1= Very Low income; 5 = Very High Income)	-0.242*	-8.70
Health (1= Very Good Health; 5 = Very Bad Health)	0.634*	23.94
I feel connected to the people who live in my neighborhood.	0.206*	9.10
There are many volunteer opportunities in my city.	0.175*	6.61
There are plenty of job opportunities in my city.	0.099*	4.71
It is easy to get good quality healthcare in my city.	0.090*	4.11
Marital status (1 = married; 0 = not married)	-0.288*	-6.38
The city government does a good job addressing citizen concerns and requests.	0.140*	5.51
I can trust what my city government does.	0.070*	2.90
City Controls		
New York	-0.914*	-8.74
Toronto	-0.980*	-9.41
London	-0.507*	-4.71
Paris	-0.134	-1.26
Berlin	-0.378*	-3.46
Milan	0.229*	2.17
Tokyo	-0.592*	-6.26
Beijing	0.026	0.27
Stockholm	-0.581*	-5.12

Notes: LR $\chi^2 = 1862.78$; N= 7946; Pseudo R-squared = 0.095; * p < .05; Log likelihood = -8889.415

Table 1 shows that all of the Big Seven factors have a statistically significant relationship with happiness using the Quality of Life Survey. This is true even as the independent affects of each city are held constant. There is a temptation to analyze differences in happiness among the cities. However, Frey and Stutzer (2002) posit that “the meaning of happiness may significantly differ between countries, so that it is questionable whether large-scale international comparisons of happiness should be undertaken at all” (p. 136). The temptation is resisted due to this advice and no attempt will be made to engage in a comparative analysis.

The findings of this model are instructive. Table 1 shows that all of the “Big Seven” factors have an independent affect on happiness in the expected direction. Income has a negative coefficient because a low score on income (i.e., scores range from 1= very low income to 5= very high income) runs counter to happiness scores (i.e., scores range from 1 = very happy to 5 = not happy at all). The substantive interpretation; therefore, is that a one unit increase on the income scale results in a -.242 unit decrease in the ordered log-odds of being in a lower happiness category, all things being equal. Similarly, marital status has a negative coefficient. Marital status is a dichotomous variable with 1= married and 0 = never been married, divorced, widowed or other. This finding can interpreted by suggesting that a one unit increase in marital status results in a -.288 unit decrease in the ordered log-odds of being in a lower happiness category.

All of the remaining coefficients that represent the “Big Seven” factors are positive and significant. Therefore, a conclusion can be drawn to suggest that people who agree that they are healthy, that feel connected to others, that there are many opportunities to volunteer, that there are many job opportunities, that it is easy to get quality health care, that the city does a good job addressing citizen needs, and that the government can be trusted are significantly happier, all things being equal. The substantive results of this model are not changed when an Ordinary Least Squares model is employed.

The model indicates that there is a considerable amount of variance left to be explained. The “Big Seven” factors do indeed each have an independent effect on happiness, but other factors should be considered. Layard (2005) notes that save

income and health, all of the factors deal with the quality of relationships or connections. Whether these connections are with a spouse, friends or community, local government, or a higher power, there is clearly an element that permeates the traditional predictors of happiness that indicates that relationships are important. If the quality of connections play a central role in predicting happiness, other bodies of literature outside of the happiness research can be employed to strengthen the happiness model. Is the quality of our connections dependent upon factors that may affect happiness? What factors might aid in the strengthening or weakening of relationships? Studies that address the built environment of cities have linked the planning and design of urban places to the quality of relationships and happiness. The next section of this chapter will merge the urban planning and policy literature into the happiness conversation.

III. Urban Planning and Policy Literature and Happiness

This chapter hypothesizes that the way that cities and city neighborhoods are built can have an effect on happiness because of the built environment's association with connections and relationships. Neighborhoods are important because they affect connections and relationships with others as well as connections with the physical places that we live (Jacobs, 1961; Oldenburg, 1989; Beatley & Manning, 1996; Putnam, 2000; Duany, Plater-Zyberk, & Speck, 2000; Leyden, 2003; Ezell, 2004; Frumkin, Frank, & Jackson, 2004; Leyden, Goldberg, & Duval, 2008). These connections, in turn, are important for happiness and one's quality of life (Putnam, 2000; Helliwell & Putnam, 2005; Layard, 2005).

Of concern here is whether neighborhoods are built and designed to foster connections or discourage them. Increasingly, researchers and practitioners have become aware that some neighborhood designs appear better suited for social connectedness than others. Urban philosopher Jane Jacobs (1961) planted the seeds of this line of research by arguing that the design of cities can play a profound role in the desirability of city living. Jacobs (1961) associates the physical design of a city as important for determining whether the city was safe, vibrant, interesting, and social. Her seminal work, *Death and Life of Great American Cities* (1961) maintains that city neighborhoods designed with mixed-uses (i.e. a combination of residential and work places along with shops, pubs, parks, and civic buildings) and a vibrant, active sidewalk life, can influence the desirability of city living and have a positive affect on the personal well-being of residents. A consistently active sidewalk life makes “others” less anonymous leading people to take more responsibility over the well-being of “others” and the city itself. These design principles are likely to spawn places that are livable, unique, interesting, and safe (Jacobs, 1961). The consistent anonymous face to face contacts that occur in mixed-use city neighborhoods encourage a sense of public trust and social connectedness among city neighborhood’s inhabitants (Jacobs, 1961).

Ray Oldenburg (1989) maintains that cities, in concert with mixed-use principles, that provide places for people to congregate away from their homes and places of work, are important for social connections and personal well-being. “Third places” represent a “great variety of public places that host the regular, voluntary, informal, and happily anticipated gatherings of individuals beyond the realm of home

and work” (p. 16). Such places are prerequisites for cities and city neighborhoods that desire a healthy and inclusive informal social life (Oldenburg, 1989). George Burns (2005) studies the social context of happiness by emphasizing the role of interpersonal relationships and interactions. Burns presents research by Taylor et. al. (1998) which argues that positive interpersonal relationships are a source of life satisfaction and that people who frequent “public places...spoke more to other people, and communicated better, were more likely to know their neighbors by name, and reported feeling a greater sense of community” (p. 418).

Places that encourage a vibrant public life can vary. Public parks are an option. In some cities, public parks “are among a community’s most highly valued assets, not simply for their greenery, but also for the opportunity they afford for organized or spontaneous contact with other community members” (Beatley & Manning, 1996; p. 178). Oldenburg (1996) emphasizes cafes and pubs. The unplanned, face to face contacts that are so important for social connections can occur not only at a destination such as a “third place”, but also in the context of transportation. Places that are built to encourage multiple modes of transportation (i.e., walking, biking, and public transportation) bring people together in shared public places while taking care of daily needs (Beatley & Manning, 1996; Cervero, 1998).

It has been argued that cities and city neighborhoods not built with these design principles in mind can have a negative impact on the sociability of residents, and ultimately their happiness. Duany, Plater-Zyberk, and Speck (2000), for example, suggest that the impact of car-dependency, the emphasis on improving private rather than public places, and the segregation of houses from places of work, shopping, and

recreation has lead to the fragmentation of society. “In the absence of walkable public places- streets, squares, and parks, the public realm- people of diverse ages, races, and beliefs are unlikely to meet and talk” (p. 60). Referring to car-dependency and fragmentation, Putnam (2000) suggests that “more time spent alone in the car means less time for friends and neighbors (p. 214). When places only accessible by use of the private automobile, segments of the population can become segregated from society. Car-dependency discourages those “who cannot afford-or are unable, due to age or disability- to drive” (Beatley & Manning; p. 179). Duany, Plater-Zyberk, and Speck (2000) maintain that building in a car-dependent manner discourages kids, teenagers, the elderly, commuters, and the poor from engaging society in the public realm and encourages isolation. As a result, the quality of relationships found to be important for happiness can be harmed by the way that cities are built.

Compelling theories regarding the association of the built environment with the social connections that are important for happiness have been presented. Despite the general consensus found in this literature, there is little empirical work that tests these theories, save Putnam (2000), Freeman (2001) and Leyden (2003). Putnam (2000) *partially attributes* the physical design of communities to declines in many different types of activities that would normally bring people together and enhance social connectedness and ultimately happiness. Since the latter part of the 20th century, Putnam (2000) finds declines – in the United States - in the number of people who are active in their communities or volunteer their time. He also finds declines in the degree to which Americans engage in informal social activities such as having friends over, going to a friend’s house, family dinners, card games, and informal

socializing. Putnam (2000) suggests that part of the decline in trust and social connectivity between neighbors is due to car-dependency, single use zoning policies, and the lack of shared public places.

Differentiating between residents of Galway, Ireland who live in walkable, mixed-use neighborhoods from residents who live in car dependent neighborhoods, Leyden (2003) finds significant differences in regards to social connectivity. Using a “walkability index”, Leyden finds people living in walkable, mixed-use neighborhoods are more likely to know their neighbors, and be more trusting, social, and active politically than those residing in car-dependent, residential subdivisions, all things being equal.

The happiness of residents has also been empirically linked to more sustainable forms of development. Zidansek (2006) finds a correlation between the Environmental Performance Index of nations and the happiness and life satisfaction of residents. Sustainable development promotes a built environment with mixed-uses and multi-modal transportation, along with other protections of the natural environmental, that scholars argue enhance the quality of life of residents (Beatley & Manning, 1996; Portnoy, 2003).

Using the responses from the Quality of Survey, this chapter has already provided support for the supposition that connections are associated with happiness. This was demonstrated by showing that happiness is significantly affected by the quality of relationships with family, friends, community, government, and a higher power. The survey can also apply empirical data to the hypothesis that aspects of the built environment are associated with happiness. The Quality of Life survey provides

a number of items that ask people to assess their built environment. These items are associated with mixed-uses, third places, and accessible transportation. Respondents are asked to indicate the degree to which they agree or disagree with the following statements:

- It is convenient to use public transportation (e.g., subways, trains, or buses) in my city.
- I have easy access in my city to plenty of shops, supermarkets, and department stores.
- There are many parks and sports facilities in my city.
- My city allows easy access to culture and leisure facilities such as movie theaters, museums, and concert halls.
- There are a sufficient number of libraries in my city.

For each statement, respondents are given 5 choices which are coded as follows: 1= strongly agree; 2 = agree; 3 = neither agree nor disagree; 4 = disagree; 5= strongly disagree. Lower scores on each of these items indicate that respondents have reported having greater access to a variety of amenities and third places, and a variety of transportation options to access these amenities. Figures 10 – 14 show the mean score for each of these built environment items for each level of happiness. A consistent theme that runs through each of these figures is that happier people are also more likely to agree that the built environment of their cities and city neighborhoods provide mixed-uses including “third places” and multiple means of transportation to access society. Those who rated their happiness as “not very happy” and “not happy at all” consistently report lower levels of accessible, mixed use amenities and multiple transportation options than those who report being “very happy” or “somewhat happy”.

Figure 10: Mean score of "It is convenient to use public transportation (e.g., subways, trains, or buses) in my city" and Happiness

Figure 11: Mean Score of "My city allows easy access to culture and leisure facilities, such as movie theaters, museums, and concert halls" and Happiness

Figure 12: Mean Score of "There are many parks and sports facilities in my city" and Happiness

Figure 13: Mean Score of "I have easy access in my city to plenty of shops, supermarkets, and department stores" and Happiness

Figures 10-14 demonstrate that people who agree that their neighborhoods provide mixed-use amenities with multiple modes of transportation are happier. To understand the independent effects of these factors on happiness, a second ordered logit model can be run. Table 2 presents a happiness model that includes the built environment items with the “Big Seven” factors addressed above. Once again, differences among the cities in the sample are controlled in order to account for cultural differences. Table 2 shows that along with the “Big Seven” factors, there are aspects of the built environment that are important for happiness. Having easy access to culture and leisure facilities such as movie theaters, museums, and concert halls along with a sufficient number of libraries is significantly associated with happiness, all things being equal. Further, having a convenient public transportation system is significantly associated with happiness. This is probably because segments of the population are not able to engage society without the ability to access it (Cervero,

1998; Duany, Plater-Zyberk, & Speck, 2000). The inability to engage society harms the connections that are so important for happiness.

Table 2

Ordered Logit Model Predicting Happiness with the Big Seven Factors and the Built Environment

(1= Very Happy; 5 = Not Happy at All)

"Big Seven" Factors	Coefficient	z
Income (1= Very Low income; 5 = Very High Income)	-0.246*	-8.54
Health (1= Very Good Health; 5 = Very Bad Health)	0.615*	22.38
I feel connected to the people who live in my neighborhood.	0.206*	8.83
There are many volunteer opportunities in my city.	0.133*	4.75
There are plenty of job opportunities in my city	0.081*	3.66
It is easy to get good quality healthcare in my city.	0.049*	2.09
Marital status	-0.290*	-6.26
The city government does a good job addressing citizen concerns and requests	0.116*	4.42
I can trust what my city government does	-0.246*	-8.54
Built Environment		
It is convenient to use public transportation (e.g., subways, trains, or buses) in my city.	0.086*	3.50
I have easy access in my city to plenty of shops, supermarkets, and department stores.	0.038	1.36
There are many parks and sports facilities in my city.	0.027	1.06
My city allows easy access to culture and leisure facilities such as movie theaters, museums, and concert halls.	0.100*	3.72
There are a sufficient number of libraries in my city.	0.066*	2.78
City Controls		
New York	-0.782*	-7.11
Toronto	-0.876*	-7.95
London	-0.403*	-3.52
Paris	-0.011	-0.09
Berlin	-0.166	-1.41
Milan	0.278*	2.51
Tokyo	-0.439*	-4.41
Beijing	0.112	1.07
Stockholm	-0.420*	-3.51

Notes: LR $\chi^2 = 1829.20$; N= 7562; Pseudo R-squared = 0.098; * p < .05;
Log likelihood = - 8399.718

It is the work of planners that can determine the built environment of cities and city neighborhoods. This is an incredible responsibility on the planning profession as their work has an affect on the well-being of residents. This chapter demonstrates that along with the “Big Seven” factors, city neighborhoods that provide multiple, accessible amenities produce happier residents, all things being equal. The work of urban planners; however, is a function of public policy. Frug (1996) maintains that the “urban landscape is not simply the result of individual choices about where to live or to create a business. It is the product of a multitude of governmental policies” (p. 1048). Policy provides the parameters under which planners design urban places (Lewis, 1996; Beatley & Manning, 1996; Frug, 1996; Cervero, 1998; Nivola, 1999; Shuman, 2000; Baxadall & Ewen, 2000; Duany, Plater-Zyberk, & Speck, 2000; Smart Growth Network, 2002; Portnoy, 2003; Frumkin, Frank, & Jackson, 2004; Florida, 2008; Leyden, Goldberg, & Taylor, 2009). Some policies are created to bring people together, while others provide incentives for planners to fragment society (Beatley & Manning, 1996; Lewis, 1996; Shuman, 1996; Stiglitz, 2006). Further, public policy decisions can affect the viability of urban places by emphasizing factors such as aesthetic value, safety, local economics, and the provision of basic services (Florida, 2008). A neighborhood with a multitude of accessible amenities and transportation options is not viable if residents cannot afford to take advantage of the opportunities and if they do not feel safe from crime or accidents in their environment (Jacobs, 1961; Doyle, 2005; Florida, 2008). This is especially true to families and children. In the United States, it is common for young couples to leave cities for suburban places to raise their children because of a lack of trust in others and because parents feel they

lack control of their immediate environments (Duany, Plater-Zyberk, & Speck, 2000). Cities, of course, have the potential to be good places to raise children; however, the ability to reach such potential has a lot to do with whether a municipality makes children and families a priority (Jacobs, 1961).

The Quality of Life survey provides opportunities to determine how the happiness of residents is affected not only by the built environment, but also its conditions as it relates to aesthetics, safety, public services, economic conditions, and its emphasis on children and families. Respondents are asked the degree to which they agree or disagree with each of the following statements in light of the conditions of their cities and city neighborhoods:

- (City name) is a beautiful city.
- Streets, sidewalks, and other public places are clean in my city.
- I feel safe walking around at night.
- Air pollution is a serious problem in my city.
- I feel safe from the danger of various accidents such as car accidents, fires, and build collapses
- The price of living in my city is high.
- I feel safe when I drink publicly provided tap water.
- My city is a good place to rear and care for children.
- It is easy for children in my city to go to a good school.

All of the variables are coded with 1= strongly agree; 2 = agree; 3 = neither agree nor disagree; 4 = disagree; 5= strongly disagree. Lower scores on all except for two of these items indicate that people are more satisfied with the aesthetics, safety, public services, economic conditions, and the emphasis placed on children and families. Items that address air pollution and the price of living are negatively worded; therefore, higher numbers indicate greater approval. Figures 15 – 23 show the mean score of each of these factors based upon the respondents' level of

happiness. These figures show a general trend that happier people are more satisfied with the conditions of their city as it relates to aesthetics, safety, public services, economic conditions, and their focus on children and families. The mean scores for these items increase (indicating a lower level of agreement) as the Figures 15-23 run through each category of happiness. Respondents who reported being “not very happy” and “not happy at all” typically had a higher mean score for these items which indicates that they are less satisfied with the conditions of their city compared to those who are “very happy” and “somewhat happy”.

Figure 16: Mean Score of "Streets, sidewalks, and other public places are clean in my city" and Happiness

Figure 17: Mean Score of "I feel safe walking around at night" and Happiness

Figure 18: Mean Score of "Air pollution is a serious problem in my city" and Happiness

Figure 19: Mean Score of "I feel safe from the danger of various accidents such as car accidents, fires, and building collapses" and Happiness

Figure 20: Mean Score of "The price of living in my city is high" and Happiness

Figure 21: Mean Score of I Feel Safe when I Drink Publically Provided Tap Water and Happiness

Using summary statistics from the Quality of Life survey, it is apparent that respondents who report more favorable conditions of the urban areas in which they live are happier. A final model, presented in Table 3, examines the independent affects of the “Big Seven” factors, the built environment, and the conditions of the city

on the happiness of residents. The differences among the 10 cities are accounted for with control variables. As with the other two models presented in this chapter, an ordered-logit model is employed to account for the categorical nature of the dependent variable: happiness.

Table 3

Ordered Logit Model Predicting Happiness with the “Big Seven Factors”, the Built Environment, and the Conditions of the City
(1= Very Happy; 5 = Not Happy at All)

“Big Seven” Factors	Coefficient	z
Income (1= Very Low income; 5 = Very High Income)	-0.244*	-8.16
Health (1= Very Good Health; 5 = Very Bad Health)	0.616*	21.50
I feel connected to the people who live in my neighborhood.	0.193*	7.89
There are many volunteer opportunities in my city.	0.124*	4.28
There are plenty of job opportunities in my city	0.080*	3.51
It is easy to get good quality healthcare in my city.	0.029	1.18
Marital status	-0.278*	-5.82
The city government does a good job addressing citizen concerns and requests	0.100*	3.62
I can trust what my city government does	0.053*	2.02
Built Environment		
It is convenient to use public transportation (e.g., subways, trains, or buses) in my city.	0.074*	2.88
I have easy access in my city to plenty of shops, supermarkets, and department stores.	0.034	1.16
There are many parks and sports facilities in my city.	0.001	0.04
My city allows easy access to culture and leisure facilities such as movie theaters, museums, and concert halls.	0.108*	3.87
There are a sufficient number of libraries in my city.	0.055*	2.22
Conditions of the City		
(City name) is a beautiful city.	0.150*	5.15
Streets, sidewalks, and other public places are clean in my city.	-0.052*	-2.24
I feel safe walking around at night.	-0.010	-0.45
Air pollution is a problem in my city.	-0.037	-1.61
I feel safe from the danger of various accidents such as car accidents, fires, and build collapses	0.018	0.78
The price of living in my city is high.	-0.094*	-3.46
I feel safe when I drink publicly provided tap water.	0.020	0.92
My city is a good place to rear and care for children.	0.087*	3.59
It is easy for children in my city to go to a good school.	0.009	0.37
City Controls		
New York	-0.630*	-5.31
Toronto	-0.715*	-6.01
London	-0.296*	-2.37
Paris	0.093	0.76
Berlin	0.008	0.06
Milan	0.329*	2.76
Tokyo	-0.394*	-3.68
Beijing	0.226	1.93
Stockholm	-0.110	-0.81

Notes: LR $\chi^2 = 1827.25$; N= 7175; Pseudo R-squared = 0.103; * p < .05; Log likelihood = -7923.594

Table 3 demonstrates that there is an independent association between the perceived conditions of cities and the overall happiness of residents. The strongest relationship is in regards to aesthetics. The perception that the city is a beautiful place has a positive statistically significant relationship with happiness. Economic conditions as measured by the cost of living standards also effects happiness. The negative coefficient indicates that those who disagree with the statement “the price of living in my city is high” are happier, all things being equal. Perceiving the city as a good place for children and families is also important. Once again, all things being equal, those who report that their “city is a good place to rear and care for children” are happier. As with the models presented in Table 1 and Table 2, the “Big Seven” factors and aspects of the built environment have a positive statistically significant association with happiness.

IV. Conclusion

This chapter demonstrates that self-perceived happiness is associated with the type of city neighborhood in which people live. Controlling for other explanations, this chapter finds that aspects of the built environment of cities and city neighborhoods has an independent and significant effect on the happiness of residents. People who report that they have easy access to cultural “third places” such as movie theaters, museums, and concert halls, along with libraries, are happier, all things being equal. Having access to public transportation options within cities is also important. These aspects of the built environment have been shown in past research to effect the social

connections that are important for happiness (Jacobs, 1961; Oldenburg, 1989; Beatley & Manning, 1996; Putnam, 2000; Helliwell & Putnam, 2005; Layard, 2005; Holder & Coleman, 2008).

The conditions of cities are important too. Policy makers who ensure that cities are good places to rear and care for children are rewarded with the happiness of residents. Local economic conditions, as measured by the cost of living, are also associated with the happiness, all things being equal.

It is important to note that the data presented in this chapter is limited to urban places. The findings may or may not be applicable to suburban areas and small towns. In the United States, it is suburban areas that are more likely to neglect multiple modes of transportation and access to third places (Duany, Plater-Zyerk, & Speck, 2000; Frumkin, Frank, & Jackson, 2004). Future research should consider how happiness is associated with suburbanization. With that said, Jacobs (1961) maintains that urban places consist of significant variations when it comes to amenities and transportation options. It is these differences that are examined in this chapter.

Chapter 3

I. Introduction

There is a growing recognition - across many different academic disciplines – that place matters. The way that cities and city neighborhoods are designed and maintained can have important effects on collective and individual well-being. Economic, physical, psychological, environmental, and social health have all been linked to the physical attributes of the built environment and the conditions of the public realm (e.g., Jacobs, 1961; Beatley & Manning, 1996; Duany, Plater-Zyberk, & Speck, 2000; Putnam, 2000; Dreier, Mollenkopf, & Swanstrom, 2001; Handy et. al., 2002; Kawachi & Berkman, 2003; Leyden, 2003; Saelens, Sallis, & Frank, 2003; Frumkin, Frank, & Jackson, 2004; Frank, et. al., 2006; Handy, Cao, & Mokhtarian, 2006; Forsyth, et. al., 2007, Ryan & Weber, 2007; Florida, 2008). Scholars suggest that well-being is a function not only of biological and behavioral factors unique to the individual, but also of the context in which people live their lives.

This chapter builds upon the existing research using a unique data set compiled from surveys of residents in ten major metropolitan cities across North America, Europe, and Asia. It examines how attributes of the built environment and conditions of the public realm affect measures of social connectedness, civic pride, and satisfaction with the city as a place to live. The key proposition is that certain aspects of the built environment and the way government attempts to maintain the public sphere through public policy is critically important for understanding the extent to which residents feel connected with each other and the cities in which they live. The dependent variables are closely related to what social psychologists have described as “sense of community” (McMillan & Chavis, 1986; see also Chavis & Pretty, 1999;

Chipuer & Pretty, 1999; Bow & Buys, 2003; Peterson, Speer, & Hughey, 2006; Tartaglia, 2006; Pretty et. al., 2007). Sense of community accounts for a sense of belongingness amongst its members, a shared emotional connection to the community itself, and the belief that needs can be fulfilled by being a part of a community. Talen (1999) argues that “in terms of linking environmental variables such as town design or architecture to sense of community more directly, existing research has been scant” (p. 1366). This chapter is an attempt to address this deficiency using data from around the globe.

II. Examining the Relationship between the Built Environment, the Public Sphere and Connections to Others

Robert Putnam (2000) has compellingly identified the importance of social capital for individual and community well-being. Social capital is defined as the degree to which people are connected with and interact with each other and are actively involved in their communities. These connections and interactions are important; they lead to trust and a spirit of reciprocity that help “lubricate the inevitable frictions of social life” (p. 135). Further, Putnam stresses that physical health, happiness, economic prosperity, personal safety, and success in the workplace and school are all positively associated with social capital.

To what degree does the built environment have an effect on these important social connections and connections to place? One component of the built environment that inspires social capital is the inclusion of “third places” (Oldenburg, 1989). Ray Oldenburg (1989) maintains that cities must provide places for people to congregate away from their homes and places of work. Characteristics of such places are

meticulously described. They should be on neutral grounds, be inclusive, be accessible, and “set the stage for the cardinal and sustaining activity” of conversation (Oldenburg, 1989; p. 26). Oldenburg (1989) suggests that such places provide benefits to both individuals and the community at large. Individually, they provide novelty in that they encompass a diversity of populations and conversation topics (p. 46). They also have the ability to promote a more positive outlook on life and encourage sociability. Collectively, such places can encourage more formal associations which Putnam (2000) would argue are crucial for a healthy civic life. People are more likely to feel connected to and trust one another when neighborhoods provide places for connections to occur (Jacobs, 1961; Oldenburg, 1989; Beatley & Manning, 1996; Duany, Plater-Zyberk, & Speck, 2000; Leyden, 2003; Florida, 2008).

Richard Florida (2008) maintains that accessible third places are just as important to community life as the attainment of basic needs. He suggests that planners charged with redeveloping a post-Katrina New Orleans must concentrate on “New Orleanians want and need to connect with each other through core neighborhood institutions- their churches, taverns, bars, parks, and schools. They want their personal lives and community relationships back” (p. 184).

Of course, there are other components of the built environment beyond third places necessary to attaining a healthy public realm. Jane Jacobs (1961) stresses the importance of an active and vibrant sidewalk life. The value of sidewalks extends well beyond functionality for purposes of transportation. They are an equalizer for people of diverse populations and can serve as a foundation for trust among residents. Sidewalks and other aspects of street life (e.g., associated with markets and shopping,

sidewalk cafes, or public squares) can “offer a strong sense of community, or belonging, by the simple act of being around other people- even strangers” (Ezell, 2004; p. 27).

A built environment that includes an active sidewalk life and “third places” fosters a healthy public realm. The key mechanism that encourages social connectivity is the informal and unplanned face to face contact that occurs in the public realm (Jacobs, 1961; Beatley & Manning, 1996; Leyden, 2003). Jacobs (1961) eloquently maintains:

the trust of a city street is formed over time from many, many little public sidewalk contacts. It grows out of people stopping by at the bar for a beer, getting advice from the grocer and giving advice to the newsstand man, comparing opinions with other customers at the bakery and nodding hello to the two boys drinking pop on the stoop, eyeing the girls while waiting to be called for dinner, admonishing the children, hearing about a job from the hardware man and borrowing a dollar from the druggist, admiring the new babies and sympathizing over the way a coat faded (p. 56).

Of course, it is not simply a matter of building it and they will come. A healthy public realm is the domain of government policies and their efforts to make social and public life agreeable and positive. Built environments that encourage and enable social interactions can be built, but they also must be maintained. The best designed mixed-use and pedestrian or transit-oriented spaces cease to be healthy public spheres if residents are fearful of crime or the shops and third places have been abandoned (e.g. Doyle et. al., 2006). The built environment is important, but so too are the public policies that continually seek to improve and maintain the well-being of the city and its inhabitants. Factors such as the aesthetic value, safety from crime and accidents,

local economics, the provision of basic services, and the creation of good opportunities to raise children are important (Jacobs, 1961; Florida, 2008).

The first section of this chapter hypothesizes that aspects of the built environment and public policies that encourage a healthy public realm are associated with social connections. Despite a well-grounded theoretical framework that supports this hypothesis; empirical evidence has been rather limited. Notable exceptions include the findings of Putnam (2000), Freeman (2001) and Leyden (2003), among others.

The data that this chapter examines below were collected by Gallup for the National Academy of Sciences under the auspices of the Seoul Metropolitan Government and the Seoul Welfare Foundation. Random samples of 1000 people in 10 cities were included. The participating cities were New York, London, Paris, Stockholm, Toronto, Milan, Berlin, Seoul, Beijing, and Tokyo. The data were collected in late 2007. Survey respondents were asked to make a variety of self-assessments about an inclusive list of factors about their cities and their lives.

The first dependent variable is measured by asking respondents to address the degree to which they agree or disagree with the following statement: *I feel connected to the people who live in my neighborhood*. Respondents are given 5 choices to address this statement with 1 = strongly agree; 2 = agree; 3 = neither agree nor disagree; 4 = disagree; 5 = strongly disagree. Lower scores means that respondents feel more connected to others who live in their neighborhoods.

Respondents are also asked to indicate the degree to which they agree or disagree with items related to the built environment of their city and city neighborhood

along with other items that address the conditions of the public sphere. Built environment variables include characteristics of cities and city neighborhoods as they relate to urban planning and urban form. These include access to parks, shops, public transportation, libraries, theaters and other built amenities. A second set of variables measure aspects of a healthy public sphere, most of which can be affected by government policies. These include factors such as the extent to which residents fear crime, the cleanliness of public places, the overall beauty of the city, the availability of basic needs such as clean water and access to good schools, and economic conditions among others. These items are presented in table 4. Once again, 5 choices are provided for respondents to address these items with 1 = strongly agree; 2 = agree; 3 = neither agree nor disagree; 4 = disagree; 5 = strongly disagree. As with the dependent variables, lower rating on these items suggest that respondents are more exposed to more mixed-use amenities and a healthier public sphere.

Table 4**Survey Items that Address Attributes of the Built Environment and the Public Sphere**

Attributes of the Built Environment	
▪	There are many parks and sports facilities in my city.
▪	It is convenient to use public transportation (e.g. subways, trains, or buses) in my city.
▪	I have easy access in my city to plenty of shops, supermarkets, and department stores.
▪	My city allows easy access to culture and leisure facilities such as movie theaters, museums and concert halls.
▪	There are a sufficient number of libraries in my city.
Attributes of the Public Sphere	
▪	(City name) is a beautiful city.
▪	Streets, sidewalks and other public places are clean in my city.
▪	I feel safe when I drink publicly provided tap water.
▪	It is easy for children in my city to go to a good school.
▪	My city is a good place to rear and care for children.
▪	It is easy to get good quality healthcare in my city.
▪	The price of living in my city is high.
▪	There are plenty of job opportunities.
▪	There is a huge gap between the rich and the poor in my city.
▪	I feel safe walking around at night.
▪	I feel safe from the danger of various accidents such as car accidents, fires, and build collapses.
▪	Air pollution is a problem in my city.

A look at the Figures 24 – 28 shows that respondents who feel that are exposed to more amenities and transportation options also feel more connected to others. The mean score for each of the built environment variables is provided based upon how connected respondents reported that they feel connected to others in their neighborhoods. Respondents who “strongly agree” or “agree” that they feel connected to others in their neighborhood score better on having access to parks and sports facilities, public transportation options, shops and supermarkets, culture and leisure facilities, and libraries than those who “disagree” or “strongly disagree” that they feel connected. The general trend between feeling connected and these built environment variables is fairly consistent across the all five figures.

Figure 24: Mean Score of "There are many parks and sports facilities in my city" and Feeling Connected

Figure 25: Mean Score of "It is convenient to use public transportation (e.g., subways, trains, or buses) in my city" and Feeling Connected

Figures 29 – 36 show that respondents who report a healthier public sphere also feel more connected to others in their neighborhoods. Respondents who “strongly agree” or “agree” that they feel connected to others in their neighborhood have a better mean score on agreeing that the city in which they live is beautiful and clean, that publicly provided water is safe to drink and health care options are plentiful, that they feel safe walking around at night and safe from accidents from cars, fires, and building collapses, that there are plenty of available job opportunities, and that agree that their city is a good place to raise a family than those who “disagree” or “strongly disagree” that they feel connected to others. The other variables related to the public sphere did not significantly vary along with the levels of which people feel connected to others.

Figure 29: Mean Score of "(City name) is a beautiful city" and Feeling Connected

Figure 30: Mean score of "Streets, sidewalks, and other public places are clean in my city" and Feeling Connected

Figure 31: "I feel safe when I drink publicly provided tap water" and Feeling Connected

Figure 32: Mean score of "It is easy to get good quality healthcare in my city" and Feeling Connected

Figure 33: Mean Score of "I feel safe walking around at night" and Feeling Connected

Figure 34: Mean score of "I feel safe from the danger of various accidents such as car accidents, fires, and building collapses" and Feeling Connected

There are other social elements related to social connections (Putnam, 2000; Leyden, 2003). The Quality of Life survey asks respondents the degree to which they agree or disagree with the following statement: *There are many opportunities for volunteer activities in my city.* Such activities serve as a mechanism for added social

connections and suggest the existence of healthy face-to-face social networks throughout the city (Putnam, 2000; Leyden, 2003). Respondents are asked to indicate whether they 1= strongly agree; 2 = agree; neither agree nor disagree; 4 = disagree; or 5 = strongly disagree. Figure 37 shows that those who reported that they “strongly agree” that they feel connected to others in their neighborhood had a mean score of 1.72 in the degree to which they agree that there are many opportunities to volunteer. Those who “strongly disagree” that they feel connected to others had a mean score of more than a point less (2.88).

In order to understand the independent affects of these built environment and public sphere variables on feeling connected to others, a more sophisticated statistical analysis can be employed. An ordered-logit model is appropriate because of the categorical nature of the dependent variable. An ordered-logit model presents a maximum likelihood estimation and produces a log-odds coefficient for each

independent variable (Long & Frees, 2003). A z-statistic provides the level of significance for each coefficient.

The model will also consider the role of various individual and city affects for explaining the extent of individuals' social connections. In all of the models presented in this chapter, demographic factors such as age, income, and marital status (another type of social connection) are controlled for. Self-perceived health and differences that may exist among the cities in the sample are also considered. The models are set up so that Seoul is used as a baseline when examining the city control variables. For instance, a negative score means residents of that city feel more connected among each other than residents of Seoul (controlling for all other factors), while a positive sign means they are less socially connected. Finally, this model will include the pride that respondents have in living in their city. Civic pride is associated with a connection not to others, but to place: sense of place (Berkowitz, 1996; Kunstler, 1996; Talen, 1999; Kwak, Shah, & Holbert, 2004).

This chapter hypothesizes that respondents who report access to mixed-use amenities, multi-modal transportation, a healthy public sphere, and plenty of volunteer opportunities in their city feel more connected to others who live in their neighborhood, all things being equal. The results are displayed in Table 5.

Table 5: Ordered-Logit Model Predicting Social Connectedness:
I feel connected to the people who live in my neighborhood
(scores range from 1= strongly agree to 5= strongly disagree)

Attributes of the Built Environment	Coefficient	z
There are many parks and sports facilities in my city	.084*	3.29
It is convenient to use public transportation (e.g. subways, trains, or buses) in my city	.002	0.07
I have easy access in my city to plenty of shops, supermarkets, and department stores	-.023	-0.80
My city allows easy access to culture and leisure facilities such as movie theaters, museums and concert halls	-.026	-0.96
There are a sufficient number of libraries in my city	.031	1.29
Attributes of the Public Realm and Public Policy		
(City name) is a beautiful city	.171*	5.93
Streets, sidewalks and other public places are clean in my city	.018	0.83
I feel safe when I drink publicly provided tap water	.108*	5.05
It is easy for children in my city to go to a good school	.020	0.87
My city is a good place to rear and care for children	.146*	6.16
It is easy to get good quality healthcare in my city	.024	1.00
The price of living in my city is high	-.003	-0.12
There are plenty of job opportunities in my city	-.019	-0.86
There is a huge gap between the rich and the poor in my city	-.004	-0.18
I feel safe walking around the city at night	.073*	3.39
I feel safe from the danger of various accidents such as car accidents, fires, and build collapses.	.036	1.58
Air pollution is a problem in my city.	-.001	-0.05
Social Variables		
There are many opportunities for volunteer activities in my city	.389*	13.73
Individual Variables		
Health (1= very good health; 5= very bad health)	.112*	4.11
Age -.006*		-4.02
Income (1=very low income; 5= very high income)	-.062*	-2.15
Marital status (1= married; 0 = not married)	-.166*	-3.47
Civic Pride (1 = very proud; 5 = not proud at all)	.203*	7.61
City Effects		
New York	-.994*	-8.76
Toronto -.846*		-7.44
London -1.438*		-12.32
Stockholm -2.133*		-16.58
Paris -1.492*		-12.40
Berlin -1.810*		-14.84
Milan -2.565*		-22.46
Tokyo -.712*		-6.74
Beijing -.720*		-6.42

Notes: LR $\chi^2 = 2596.03$; N= 7324; Pseudo R-squared = .123; * p < .05; Log likelihood = -9274.2395

Table 5 demonstrates that there are aspects of the built environment and public sphere that can encourage social connectedness among neighborhood residents. Residents who report that their cities provide “many parks and sports facilities” are more likely to feel connected to the people who live in their neighborhood. This is not altogether surprising; planners have long recognized that parks and other green spaces can promote social well-being as well as serve public health, recreational, and environmental purposes (Wilson, 1996; Levy, 2000; Burns, 2005; Maas, et. al., 2006; Farr, 2008). What is surprising, however, is that the relationship holds up across all cities and continents.

The well-being of the public sphere and policies that support a higher quality of life are also important for encouraging social connections. The model presented in Table 5 demonstrates feeling safe walking around at night, the extent to which respondents feel that their city is a good place to rear and care for children, the extent to which respondents felt their city was beautiful, and the availability of safe drinking water are associated with more neighborhood social connections, all things being equal.

In many ways, these public sphere variables reflect the ability of a municipal government to provide or assure basic needs and aesthetics that make cities livable. It makes logical sense, for example, that a city reported to provide basic needs would also be a good place for social connections. Richard Florida (2008) presents Abraham Maslow’s hierarchy of needs in explaining this importance. The relationship between basic needs and social connections represents the convergence of two layers in Maslow’s theory. In order for people to attain their need of belonging and

relationships, they must first attain a sense of safety. Table 5 shows that feeling safe walking around at night and access to safe drinking water is a prerequisite for conquering the ability to build social connections. Urban planners and policy makers can prioritize these needs to improve residents' the quality of life as measured by social connections. This relationship appears to be consistent in throughout the world.

Table 5 also demonstrates that people who report that there are plenty of volunteer activities feel more connected to others in their neighborhood, all things being equal. The ability and willingness of residents to volunteer suggests the existence of healthy social networks (Putnam, 2000; Leyden, 2003). Such networks have a positive affect on the social connectedness of city residents.

Aside from the attributes of the built environment and the conditions of the public sphere, there are several individual variables that affect social connections. For example, people who report being healthy are more connected to others in their neighborhood as are people who are married and have higher incomes, all else being equal.

III. Connections to Place: Explaining Pride in One's City

The above section addresses the importance of social connections. Table 5 indicates that the extent to which respondents felt proud to reside in their cities had an important effect on their social connections. Save the independent effects of the cities included in the model, pride in living in the city is the strongest predictor of social connectedness. Including civic pride as an independent variable also may mask some of the indirect affects that predict social connections; some of these affects may be

affecting pride which in turn affects social connections. Therefore, this chapter will run a model to gain insight into which indicators affect pride. As with social connections, understanding what makes people proud to live in their cities helps city policymakers and planners recognize what can be done to improve their cities. It also helps to better understand how additional variables may affect social connections via civic pride.

To what extent do measures of the built environment and the conditions of the public sphere affect people's pride in the city? Using the same built environment and public sphere independent variables as above, this chapter seeks to understand what was important for explaining why a resident might feel proud to reside in their city. Civic pride is measured by asking respondents the following question: *How proud are you of residing in your city?* Respondents are presented with 5 choices to address this question with 1 = Very proud; 2 = Somewhat proud; 3 = Neither proud nor not proud; 4 = Not very proud; 5 = Not proud at all. Table 6 presents the findings of this ordered-logit model.

Table 6 Ordered-Logit Model Explaining Pride in the City:
How proud are you of residing in your city?
(scores range from 1= very proud; 5= not proud at all)

Attributes of the Built Environment	Coefficient z	
There are many parks and sports facilities in my city	.010	0.41
It is convenient to use public transportation (e.g. subways, trains, or buses) in my city	.136*	5.38
I have easy access in my city to plenty of shops, supermarkets, and department stores	.062*	2.17
My city allows easy access to culture and leisure facilities such as movie theaters, museums and concert halls	.071*	2.56
There are a sufficient number of libraries in my city	-.050*	-2.04
Attributes of the Public Realm and Public Policy		
(City name) is a beautiful city	.392*	13.44
Streets, sidewalks and other public places are clean in my city	.008	0.35
I feel safe when I drink publicly provided tap water	.076*	3.56
It is easy for children in my city to go to a good school	.037	1.59
My city is a good place to rear and care for children	.289*	12.20
It is easy to get good quality healthcare in my city	.037	1.56
The price of living in my city is high	-.026	-0.98
There are plenty of job opportunities in my city	.088*	3.94
There is a huge gap between the rich and the poor in my city	-.055*	-2.21
I feel safe walking around the city at night	.027	1.23
I feel safe from the danger of various accidents such as car accidents, fires, and build collapses.	.055*	2.42
Air pollution is a problem in my city.	-.020	-0.86
Social Variables		
I feel connected to the people who live in my neighborhood	.202*	8.50
There are many opportunities for volunteer activities in my city	.107*	3.82
Individual Variables		
Health (1= very good health; 5= very bad health)	.326*	11.75
Age	-.009*	-5.86
Income (1=very low income; 5= very high income)	-.058*	-1.98
Marital status (1= married; 0 = not married)	.028	0.57
City Effects		
New York	-1.190*	-10.33
Toronto	-.728*	-6.38
London	-.402*	-3.33
Stockholm	.127	0.98
Paris	-.015	-0.13
Berlin	.242*	1.97
Milan	-.484*	-4.20
Tokyo	-.410*	-3.89
Beijing	-.497*	-4.43

Notes: LR $\chi^2 = 2095.99$; N= 7324; Pseudo R-squared = .110; * p < .05;
Log likelihood = -8467.9549

As Table 6 demonstrates, the built environment and maintenance of the public sphere clearly affects the level of pride that people feel about residing in their city. Scholars have long maintained that mixed-use urban forms enhance connections to place (Jacobs, 1961; Oldenburg, 1989; Beatley & Manning, 1996; Duany, Plater-Zyberk, & Speck, 2000; Smart Growth Network, 2002). Our findings provide empirical evidence for this supposition across cities and continents. Respondents are more likely to take pride in their city neighborhood when culture and leisure facilities, theatres, museums, shops and supermarkets are all accessible. Clearly residents of cities value a broad mix of uses including both basic and cultural amenities. The extent to which these built amenities are provided has a statistically significant impact on whether one is proud to reside in their city.

Related to a mixed-use built environment is transportation. Places that are mixed-use are typically conducive to multiple modes of transportation including walking, biking, and public transit. Single-use places are typically conducive only to the private automobile. Due to the spatial distance between single-use places, walking and biking are not practical. Public transit options are also typically limited in single-use development as they lose their efficiency when covering larger amounts of space (Cervero, 1998). Therefore, there is a greater emphasis on roads without safe, usable sidewalks. Table 2 demonstrates that this is not without consequence. Aside from the benefits to the natural environment associated with less driving, there are social consequences as well. Respondents who agree that public transportation (e.g., subways, trains, or buses) is convenient in their cities are more likely to take pride in where they live.

As with the built environment, the conditions of the public realm are associated with pride in the city. Aesthetics, the ability to attain basic needs, safety, and local economics are important. Table 6 demonstrates that respondents who felt that their city is a beautiful place are more likely to take pride in living in their city, all things being equal. Basic needs such as the availability of clean drinking water are associated with civic pride as are feeling safety from the danger of accidents, fires and building collapses. Economic conditions are also important. Respondents who agree that there are plenty of job opportunities in their city and who *disagree* that there is a huge gap between the rich and the poor feel more pride in living in their city, all things being equal. As with feeling connected to others, providing a good place to rear and care for children is strongly associated with pride in the city. Demographically, healthier, wealthier, and older residents are more proud to live in their cities, all else being equal.

Lastly, pride in one's city is strongly associated with social connectedness and the extent to which one perceives opportunities to volunteer. These finding suggest that pride is affected by the quality of social relations and networks within one's city. Upon analyzing this finding, it is important to point out that in Table 5 pride is a strong predictor of social connectedness. Table 2 shows that social connectedness is a strong predictor of civic pride. In which direction does the causal arrow point? Upon addressing this inquiry Putnam (2000) argues that "the causal arrows among civic involvement, reciprocity, honesty, and social trust are as tangled as well-tossed spaghetti" (p. 137). Using cross-sectional data will not allow for an opportunity to untangle these arrows. Past research that has examined similar conceptualization of

civic pride such as “community attachment” and “roots in the community” have made the case for both directions.

Kasarda and Janowitz (1974), for example, demonstrate that people who join and participate in local voluntary organizations, who engage in informal community activities, and who have dense social networks within their community are more likely to “feel at home” in their cities, take interest in their cities, and would feel sorry to leave their cities. Similarly, Sampson (1988) finds that local friendship ties are predictors for how sorry a person would feel if moving away from the community.

In other research, the causal arrow is reversed. Verba, Schlozman, and Brady (1995) show that “roots in the community” influences peoples’ likelihood of voluntarily participating in local and national politics. Taylor (1996) finds that community attachment affects levels of voluntary civic involvement. Residents who feel attached to their community are more likely to take action to make it a better place to live. He notes that “closer bonds between residents and their neighborhood encourage efforts to counter disorderly behavior” in the neighborhood (p. 61). Of course measurements vary across these studies, but it is clear that social connectedness and civic pride affect each other. This study shows that both are strongly influenced by the built environment of cities and city neighborhoods and the conditions of the public sphere.

IV. Connections to Place II: Satisfaction with the Life in the City

Finally, this chapter examines satisfaction with the city as a place to live (or community satisfaction). Examining four communities in Pennsylvania, Gene Theodori (2001) finds that community satisfaction affects individual well-being. People who are satisfied with their communities are more likely to report happiness, life satisfaction, feeling in good spirits, and having a positive outlook on their future. In light of the positive outcomes associated with community satisfaction, this chapter again examines the role of the built environment, public sphere variables, and social variables among others, for understanding one's satisfaction with the city in which they live.

Past empirical research finds an important social component to predicting community satisfaction. (Goudy, 1977; Filkins, Allen, & Cordes, 2000). People are more likely to report being satisfied with their communities when they have friends living nearby and feel that they know the people living within their communities (Goudy, 1977). Further, community satisfaction is enhanced when people believe that others in their community are friendly, trusting, and supportive (Filkins, Allen, & Cordes, 2000). Previous research on community satisfaction also suggests an important role for the built environment. Filkins, Allen, & Cordes (2000) find that satisfaction with local schools, shopping, entertainment, restaurants, and local government services all have a positive statistically significant affect on community satisfaction. Satisfaction with local parks and recreation opportunities has also been found to be associated with community satisfaction (Goldberg, 2003). As

demonstrated above, amenities and services enhance the social connections that are likely to be important.

Florida (2008) provides the most recent empirical work on community satisfaction. Consistent with past research, a social element is one of its strongest predictors. In his Place and Happiness survey, being able to meet new people and make friends is strongly correlated with satisfaction. Florida (2008) also finds that satisfaction with aesthetics, amenities, basic services, economic conditions, and “a communal sense of tolerance and acceptance of diversity” (p.176) correlate with community satisfaction.

The Quality of Life survey presented in this article asks respondents to answer the following question: *How satisfied are you with your life in the city?* Respondents are presented with the following 5 choices to address this question: 1 = Very satisfied; 2 = Somewhat satisfied; 3 = Neither satisfied nor unsatisfied; 4 = Not very satisfied; 5 = Not satisfied at all. A look at the summary statistics shows that many aspects of the built environment are associated with community satisfaction. Figures 38 – 42 show that the mean score for feeling satisfied with life in the city for all five built environment variables is at its lowest (indicating most satisfied with the city) when people “strongly agree” that there are many parks and sports facilities, that it is convenient to use public transportation, that there is easy access to plenty of shops, supermarkets, and department stores, easy access to culture and leisure facilities, and a sufficient amount of libraries in the city. The mean community satisfaction score increases (indicating less satisfaction) as respondents perceive fewer amenities and transportation options in their city. This is particularly true for assessments of parks

and transportation where the mean difference in community satisfaction is almost a full point when comparing those who “strongly agree” with those who “strongly disagree” that there are plenty of parks and public transportation options.

There also appears to be an association between the conditions of the public sphere and community satisfaction. Figures 43-51 show that the mean score of community satisfaction is at its best when people “strongly agree” that they live in a beautiful city, that their city streets are clean, that publicly provided water is safe to drink, that it is easy for children to go to a good school, that the city is a good place to rear and care for children, that there is access to quality health care, that there are plenty of job opportunities, that it is safe to walk around at night, and that they feel safe from the danger associated with accidents. For each of these variables that make up the components of a healthy public sphere, community satisfaction mean scores worsen as the degree to which people agree that their city provides a healthy public sphere declines. Those who “strongly disagree” with these statements about the public sphere are also least satisfied with life in the city.

Figure 43: Mean Score of "(City name) is a beautiful city" and Community Satisfaction

Figure 44: Mean Score of "Streets, sidewalks, and other public places are clean in my city" and Community Satisfaction

Figure 47: Mean Score of "My city is a good place to rear and care for children" and Community Satisfaction

Figure 48: Mean score of "It is easy to get good quality healthcare in my city" and Community Satisfaction

Figure 49: Mean score of "There are plenty of job opportunities in my city" and Community Satisfaction

Figure 50: Mean score of "I feel safe walking around at night" and Community Satisfaction

Community satisfaction also is associated with healthy social networks.

Figure 52 shows that as people agree less with the statement that they “feel connected to others” they are also less satisfied with their city. The same is true for the perception that there are opportunities to engage in voluntary activities. Figure 53 show that the mean score for community satisfaction is at its lowest when people “strongly agree” that there are many opportunities for volunteer activities and at its highest when respondents “strongly disagree”.

In order to understand the independent effects of the built environment and public sphere on community satisfaction, an ordered-logit model can be employed. In keeping with past research, this chapter hypothesizes that people are more satisfied with their communities when they are socially connected to others. As this chapter

has demonstrated, the attributes of the built environment and the conditions of the public sphere can enhance such connections. Places that provide access to a healthy mixture of cultural and basic amenities will likely enhance community satisfaction. And, as with the other two models presented above, it is hypothesized that people are more satisfied with their communities when their cities maintain a healthy public sphere. Table 7 presents the findings.

Table 7 Ordered-Logit model Explaining Satisfaction with Life in the City:
How satisfied are you with your life in the city?
(scores range from 1= very satisfied to 5= not satisfied at all)

Attributes of the Built Environment	Coefficient	z
There are many parks and sports facilities in my city	.059*	2.25
It is convenient to use public transportation (e.g. subways, trains, or buses) in my city	.129*	4.99
I have easy access in my city to plenty of shops, supermarkets, and department stores	.065*	2.23
My city allows easy access to culture and leisure facilities such as movie theaters, museums and concert halls	.064*	2.28
There are a sufficient number of libraries in my city	-.016	-0.65
Attributes of the Public Realm and Public Policy		
(City name) is a beautiful city	.289*	9.86
Streets, sidewalks and other public places are clean in my city	.027	1.19
I feel safe when I drink publicly provided tap water	.069*	3.17
It is easy for children in my city to go to a good school	.128*	5.47
My city is a good place to rear and care for children	.204*	8.49
It is easy to get good quality healthcare in my city	.093*	3.85
The price of living in my city is high	-.161*	-5.79
There are plenty of job opportunities in my city	.111*	4.89
There is a huge gap between the rich and the poor in my city	-.025	-0.99
I feel safe walking around the city at night	.056*	2.52
I feel safe from the danger of various accidents such as car accidents, fires, and build collapses.	.043**	1.87
Air pollution is a problem in my city.	-.015	-0.66
Social Variables		
I feel connected to the people who live in my neighborhood	.184*	7.64
There are many opportunities for volunteer activities in my city	.099*	3.46
Individual Variables		
Health (1= very good health; 5= very bad health)	.452*	15.94
Age	-.005*	-3.44
Income (1=very low income; 5= very high income)	-.331*	-10.96
Marital status (1= married; 0 = not married)	.067	1.34
City Effects		
New York	-.911*	-7.80
Toronto	-.817*	-6.98
London	-.649*	-5.22
Stockholm	-.697*	-5.25
Paris	-.032	-0.26
Berlin	-.566*	-4.49
Milan	-.002	-0.01
Tokyo	-1.019*	-9.38
Beijing	.811*	7.29

Notes: $LR \chi^2 = 2842.19$; $N = 7334$; Pseudo R-squared = .152; * $p < .05$; ** $p < .10$
Log likelihood = -7906.8673

Table 7 convincingly demonstrates that the built environment and the conditions of the public sphere, along with measures of social connectivity, have a broad affect on community satisfaction across the ten major metropolitan cities. The extent to which parks and sports facilities, shops, supermarkets and department stores, and cultural and leisure facilities (such as movie theaters, museums, and concert halls) were provided were all found to be linked to a respondent being more satisfied with life in their city. Convenient public transportation options such as buses and subways to access these amenities are also found to be important.

Several public sphere or public policy oriented variables are also found to be statistically significant. Aesthetics is important as demonstrated by the significant relationship between community satisfaction and believing that the city is beautiful. Basic services such as the availability of safe drinking water, good schools for children, and quality healthcare also affects how people address satisfaction with life in their city. Table 7 demonstrates that local economic conditions, as measured by the availability of job opportunities and the cost of living, are associated with community satisfaction. Public realms that enhance a sense of safety also affect the livability of the major cities.

As with the first two models, the model in Table 7, demonstrates the influence of good social networks for predicting city livability. The more respondents agree that they feel connected to the people who live in their neighborhood, and who agree that there are many opportunities for volunteer activities in their city, the more satisfied they are with life in their city, all things being equal. Individual variables suggest that

healthier people, wealthier people, and older people tend to be more satisfied with life in their cities.

V. Conclusions

This chapter provides powerful, cross-cultural, empirical support for the assertion that place matters. The way that cities and city neighborhoods are built along with the maintenance of the public sphere affects how connected people are with each other and with our cities. Public policies that promote a positive quality of life and the quality social networks have important effects on making the city a livable place as determined by how connected people feel to each other, civic pride, and community satisfaction. A summary of the findings are presented in Table 8.

Table 8
Summary of Findings

Attributes of the Built Environment	Feeling Connected	Civic Pride	Community Satisfaction
<ul style="list-style-type: none"> There are many parks and sports facilities in my city. It is convenient to use public transportation (e.g. subways, trains, or buses) in my city. I have easy access in my city to plenty of shops, supermarkets, and department stores. My city allows easy access to culture and leisure facilities such as movie theaters, museums and concert halls. There are a sufficient number of libraries in my city. 	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • • • • 	<ul style="list-style-type: none"> • • • •
Attributes of the Public Realm and Public Policy			
<ul style="list-style-type: none"> (City name) is a beautiful city. Streets, sidewalks and other public places are clean in my city. I feel safe when I drink publicly provided tap water. It is easy for children in my city to go to a good school. My city is a good place to rear and care for children. It is easy to get good quality healthcare in my city. The price of living in my city is high. There are plenty of job opportunities. There is a huge gap between the rich and the poor in my city. I feel safe walking around at night. I feel safe from the danger of various accidents such as car accidents, fires, and build collapses. Air pollution is a problem in my city. 	<ul style="list-style-type: none"> • • • • 	<ul style="list-style-type: none"> • • • • • • 	<ul style="list-style-type: none"> • • • • • • •

Note: Variable is statistically significant = •

In understanding pride and satisfaction with living in the city, aspects of the built environment were particularly important. City respondents clearly value built amenities such as plenty of parks, shops, supermarkets, theaters and access to convenient public transportation. But they also expect positive social networks and public policy efforts that provide cleanliness, beauty, a good local economy, a low crime rate, and a good environment in which to raise children.

This chapter strongly suspects that the findings underscore the importance of good pedestrian-oriented, mixed-use urban planning models that actively seek to create a sense of place. The findings also provide insights for policy makers. The analyses strongly suggest the public wants and expects that municipal governments work to maintain and improve the public realm. City residents across the globe expect the city to be safe, clean, aesthetically attractive, and provide economic opportunity. They also judge their cities by the quality of its social relations and the degree to which it is a good place to rear and care for children. More research is needed to understand the public policies that work to make urban places viable and livable. The same could be done for smaller towns, suburbs and rural areas.

Chapter 4

Introduction

This chapter focuses on voluntary political activity. Does the built environment of cities and city neighborhoods have an effect on the extent to which people engage the local political process? If yes, why? Much of the literature focuses on systemic factors that determine the likelihood of people choosing to vote, contacting government officials, attending rallies for a political candidate or policy issue, actively engaging in campaign work for a candidate, participating in a march or protest, attending a public meeting of a governing board, or working informally with others on a political issue. This chapter will add to this literature by injecting the design of cities and city neighborhoods into the equation.

Understanding the factors that influence political participation has proven to be an important task as scholars have found that political leaders reward people for their participation and are more likely to disregard non-participants (Verba, Schlozman & Brady, 1995; Martin, 2003; Rosenstone & Hansen, 2003). Verba, Schlozman, and Brady (1995) maintain that “inequalities in [political] activity are likely to be associated with inequalities in governmental responsiveness” (p. 14). Rosenstone and Hansen (2003) find that those who engage in politics are prone to receive collective (e.g. building a park in the neighborhood or constructing a new road or sidewalk) or selective (e.g. an internship or letter of recommendation for the participants child) political rewards from the leaders they support.

Financial allocations from Congress to counties vary based upon levels of political participation. By examining differences of voter turn-out across counties, Martin (2003) finds that counties with higher levels of voter turn-out are more likely

to benefit from federal expenditures than counties with lower levels of turn-out, all things being equal. While not the most important factor in determining where money goes, political leaders know who votes and bestow rewards upon people for their efforts. Martin (2003) concludes that “unequal participation leads to unequal representation” (p. 123).

The motivation for political leaders to reward people for their participation is clear. There is a return on their investment (Verba, Schlozman, & Brady, 1995; Martin, 2003; Rosenstone & Hansen, 2003). Favors are returned to political leaders in the form of votes, networking opportunities, financial contributions, and other methods of support (Rosenstone & Hansen, 2003). Member of Congress who succeed in securing funds for more active counties are likely to reinforce further voting in the future (Martin, 2003). A cycle is reinforced by political leaders and participants by rewarding each other for their decisions: political leaders provide rewards while participants provide support. Conversely, less active segments of the population are logically less able to strengthen the position or influence of a political leader. As a result, political leaders do not have the same incentives to provide such rewards to less active members of the electorate.

If levels of political participation do not vary across “politically relevant characteristics”, then differences in levels of participation may not raise normative questions about fairness (Verba, Schlozman, & Brady, 1995). All segments of the population would have equal opportunity and ability to participate in the political process and receive rewards for their efforts. The reinforcing cycle of rewards could be equally entered and enjoyed. Collectively, however, scholars continually

demonstrate that levels of participation in politics are not random and do indeed vary across politically relevant segments of the population (Wolfinger & Rosenstone, 1980; Beck & Jennings, 1982; Powell, 1986; Squire, Wolfinger, & Glass, 1987; Mitchell & Wlezien, 1995; Verba, Scholzman, & Brady, 1995; Oliver, 2001; Humphries, 2001; Plutzer, 2002; Rosenstone & Hansen, 2003; Martin, 2003). There are systematic indicators that exist when determining who engages in voluntary political activity and who does not. As a result, some segments of the population are overrepresented and gain inordinate amounts of rewards for their participation while other segments are left out. Understanding political participation becomes a question about fairness.

Factors Associated with Political Participation

In light of the normative question regarding fairness, scholars are largely concerned with determining who participates. The most dominant theory is that socio-economic status (SES) is the most significant predictor of the likelihood that an individual will engage in voluntary political activity (e.g., Wolfinger & Rosenstone, 1980; Beck & Jennings, 1982; Powell, 1986; Squire, Wolfinger, & Glass, 1987; Verba, Scholzman, & Brady, 1995; Oliver, 2001; Plutzer, 2002; Rosenstone & Hansen, 2003). Verba, Scholzman, and Brady (1995) suggest that “the central tenet of the SES model is that people of higher socio-economic status- those with higher education, higher income, and higher-status job- are more active in politics” (p. 281). Depending upon the participatory act under question, different aspects of SES serve as the primary predictor. For example, income is the strongest SES predictor for

activities that require disposable income such as making a financial contribution to a political campaign (Verba, Schlozman, & Brady, 1995).

For most forms of political activity, education stands out as the most dominant SES predictor (Wolfinger & Rosenstone, 1980; Powell, 1986; Verba, Schlozman, & Brady, 1995; Plutzer, 2002; Rosenstone & Hansen, 2003). People with a higher level of education are more likely to work for a political party or candidate, sign a petition, attend a public meeting, and write to a member of Congress (Rosenstone & Hansen, 2003; p. 48-49). Educational attainment is particularly important for voting in the United States. In a comparative study of industrialized democracies, educational attainment was found to be more important for voter turnout in the United States than in any other country (Powell, 1986). This is attributed to the hurdles associated with the unique institutional aspects of the American electoral system which tend to demobilize an otherwise comparatively interested and informed public. For example, Powell (1986) maintains that participation in elections is suppressed by a lack of compulsory voting and confusing registration laws. Higher educated members of the public are better equipped to navigate these obstacles and are therefore more likely to vote.

Not only is SES important in predicting the likelihood that an individual will engage in political activity, but also the SES of their family during childhood. Central to this developmental theory is that political participation is a function of habit and socialization (Beck and Jennings, 1982; Plutzer, 2002). People are either consistent voters or consistent non-voters. In consequence, the starting point of whether people

vote or not in their first eligible election is of considerable importance to the likelihood of their choices to engage in future elections (Plutzer, 2002).

What factors account for the likelihood that a young adult will choose to become a voter? Using a longitudinal panel data set, Beck and Jennings (1982) suggest that the political participation of young adults is a function of three characteristics of their parents: SES, political activity, and civic orientations. Youth participation in school-based extracurricular activities is also found to predict young adult political participation. Left unspecified in Beck and Jennings' (1982) research is a determination of whether some SES factors are more important than others. Parental SES is limited to the paternalistic measurement of "educational attainment of head of the household" (p. 97). Consequently, the broad conclusion that parent SES predicts young adult participation in elections does not consider income or job status of either parent, or any characteristic of the "non-head of household" parent.

Plutzer (2002) expands on this limitation of Beck and Jennings' (1982) work. In his developmental framework, Plutzer (2002) demonstrates that as above, characteristics of parents are important to predicting an individual's likelihood of participation. His findings suggest that along with SES, parental political knowledge and parental level of participation can predict the likelihood of whether their child will become a voter later in life (Plutzer, 2002). Plutzer's (2002) measurement of parent SES is far more inclusive than that of Beck and Jennings (1982). He finds that the average parental education level supersedes the importance of income and occupational prestige for predicting participation. This finding further specifies the

importance of SES in predicting participation, although such findings are only applicable to voting.

Despite the general consensus regarding the importance of SES as a predictor of political participation, the simple finding has not been without its critics. Verba, Schlozman, and Brady (1995) suggest that “the strengths of the SES model are in its empirical power to predict activity and in the political relevance of the groups upon which the analysis is based. However, it is theoretically deficient in failing to specify the mechanism that links socioeconomic status to political participation” (p. 280). The SES model predicts voluntary political activity with no ability to answer why or how. The empirical findings do not explain the theoretical value (Verba, Schlozman, & Brady, 1995). This of course is unsatisfying.

Scholarship, therefore, attempts to fit SES factors into more theoretically based models of political participation. The Civic Voluntarism Model (CVM) is one such attempt (Verba, Schlozman, & Brady, 1995). Implicit in the development of the CVM is that “all forms of political activity demand an input, of either time or money” (p. 44). It takes time to travel to a voting station, stand in line, cast a ballot, and drive home. It also takes time to work on a campaign or attend a local board meeting. It costs money to make a contribution to a political campaign.

Another resource required for most participatory acts is at least a minimal amount of skill (Verba, Schlozman, & Brady, 1995). Skills include the ability to write a persuasive letter, speak publicly, or organize an event. These “civic skills” are necessary to effectively serve on a local board or even engage in informal community work. While using such skills may not feel like an expenditure of resources to a

participant, there are costs of time and money associated with attaining them (Verba, Schlozman, & Brady, 1995).

The CVM suggests that political participation is a function of two factors: the ability of an individual to become politically active and their willingness to do it. SES fits into this theoretical model because people with more money, more education, and more skills are in a better position to be able to expend their larger bank of resources required for different participatory acts. SES explains the ability for an individual to participate. Verba, Schlozman, and Brady (1995) maintain that these resources “would explain why someone might or might not be *able* to participate in politics. Political activity is, however, *voluntary* activity. Subjective factors explain why individuals might or might not *want* to participate” (p. 343). Political engagement accounts for such subjective factors. Political engagement is determined by understanding how interested an individual is in politics, how knowledgeable they are about politics and policy, how efficacious they feel towards individual involvement in the political process, and how strongly they identify with any of the political parties. These factors answer the question about the willingness of individuals to participate in politics. Individuals who are interested in politics, have faith that the government is responsive to the people and that their participation will matter, are politically aware and knowledgeable, and who have strong party ties are more likely to actively engage politics, all things being equal (Verba, Schlozman, & Brady, 1995). The two major findings, therefore, of the CVM are that resources and political engagement predict political participation. These factors explain that some people are more able (with

more resources) and more willing (with higher engagement levels) to participate in politics than others.

A final component to the CVM considers the importance of non-political affiliations such as church, work, and non-political organizations. Verba, Schlozman, and Brady (1995) maintain that these affiliations influence participation in two ways. First, skills are learned and practiced within these organizations. These skills can be applied to voluntary political activity. Put differently, resources are gained; therefore, an individual becomes better able to participate. Second, affiliations foster recruitment into politics, influencing an individual's engagement or willingness.

Other research builds upon the recruitment aspect of the CVM (Wielhouwer & Lockerbie, 1994; Gerber & Green, 2000; Rosenstone & Hansen, 2003). Rosenstone and Hansen (2003) suggest that the decision to participate in politics is largely a function of mobilization¹. They suggest that “people participate in politics not so much because of who they are but because of the political choices and incentives they are offered” (p. 5). Their contribution to the participation literature is framed in light of the emphasis placed upon the importance of resources and political engagement within the CVM. “Political analysts, we contend, have until now told only half of the story of participation in America, the half that stresses the resources, interests, identifications, and beliefs. We complete the story. Political leaders, in their struggles for political advantage, mobilize ordinary citizens into American politics” (Rosenstone & Hansen, 2003; p. 5).

¹ It is important to note that while occasionally a distinction is made, the terms “recruitment” and “mobilization” are often used interchangeably (see Brady, Schlozman, & Verba, 1999). Because this research draws heavily from traditions that identify with each of the terms, both will be used. The measurement described in the following section will adopt questions used to address mobilization with the understanding that they are also addressing direct recruitment efforts.

Referring to the aforementioned reinforcing cycle of rewards, mobilization into political activity is a two-way street. An incentive for political leaders to mobilize citizens is to gain support for a position or candidacy. An incentive for citizens to become targets is to gain rewards for their participation. There are costs associated with mobilization; therefore, Rosenstone and Hansen (2003) argue that political leaders employ mobilizing strategies that minimize the costs and maximize the gains. Mobilization costs less when a political leader already knows the targets, when the targets are centrally positioned in a network of people, when targets are known to be able to produce favorable political outcomes, and when targets are likely to accept the request of the political leader (p. Rosenstone & Hansen, 2003; 31).

Being contacted by a political leader or party, therefore, is not random. Organizational memberships, working in a large workplace, and being of a higher SES all increase the likelihood of becoming a target. Conversely, individuals who are of a lower SES and arguably closer to the fringe of society are less likely to become targets of a mobilization effort. Rosenstone and Hansen (2003) conclude that “efforts to move the organized, the employed, the elite, and the advantaged into politics exacerbate rather than reduce the class biases in participation in America” (p. 33). Put differently, their findings are in line with those who argue that members of the electorate with more education and more money are more likely to participate than others.

Mobilization efforts do indeed work (Wielhouwer & Lockerbie, 1994; Gerber & Green, 2000; Rosenstone & Hansen, 2003). Using four decades of NES data, Wielhouwer and Lockerbie (1994) demonstrate that when political parties contact

potential voters, turnout increases. This finding holds even when controlling for respondents' intentions to vote a priori. Activities such as wearing a campaign button, attending a political meeting, or working for a political party are also found to be significantly related to whether an individual is contacted by one of the political parties (Wielhouwer & Lockerbie, 1994). Financial contributions are also associated with mobilization efforts initiated by the political parties.

There are different methods of contacting people, and not all are equally effective in successfully mobilizing citizens. What forms of mobilization are commonly employed and which are most effective in encouraging individuals to participate? While considering no participatory acts other than voting, that question is addressed through an experimental research project comparing the effectiveness of three types of mobilization efforts: personal face to face canvassing, telephone, and direct mail (Gerber & Green, 2000). Face to face canvassing at peoples' homes is found to be the most effective form of mobilization. The research finds that "personal contact raises the probability of turnout by 8.7 percentage points" (p. 658). Conversely, direct mail appeals are only marginally effective while telephone appeals have no effect at all in raising voter turnout, all things being equal.

To summarize the political participation literature, SES is a consistent predictor of political participation. It affects the ability of an individual to navigate the complex American political system, it constitutes important resources that make political activity less daunting, and it increases the likelihood that an individual will be recruited to engage politics. No study has refuted the overall importance of SES on political participation. Along with SES, political engagement is important.

Participation in politics is voluntary in the United States. People are more likely to make the choice to become active if they are interested in politics, if they are knowledgeable about policy, if they believe that they can make a difference, and if they have strong convictions towards one of the political parties. Lastly, people are more likely to engage in voluntary political activity if they are asked. People who are asked in person are more likely to be responsive to the request than through other forms of mobilization.

The political participation literature is not without its problems. Two that cut across the literature shall be highlighted. First, scholars have been largely concerned with individual factors that predict political participation. Not included is a consideration of the influence that the human environment may have on the decision to engage in voluntary political activity. Second, although consensus is built on the finding that SES predicts participation; levels of political participation have declined while levels of income and educational attainment have risen. These problems are addressed in further detail below.

Problem 1: Individual Focus

Individual factors have been emphasized as predictors of political participation. Whether considering SES, political interest, efficacy, political knowledge, strength of partisanship, mobilization, or factors associated with developmental and socialization theories, the literature seems saturated with individual explanations for political participation. People, however, do not live in vacuums. The environment has been shown to have an extensive and independent impact on many

different individual behaviors and attitudes (see Jacobs, 1961; Alexander, 1977; Oldenburg, 1989; Beatley & Manning, 1996; Duany, Plater-Zyberk, & Speck, 2000; Oliver, 2001; Freeman, 2001; Handy, et. al., 2002; Kawachi & Berkman, 2003; Saelens et. al., 2003; Leyden, 2003; Gimpel, Dyck, & Shaw, 2004; Frumkin, Frank, & Jackson, 2004; Hoehner, et. al., 2005; Frank et. al., 2006; Doyle et. al., 2006; Forsyth, et. al., 2007; Florida, 2008). With a few exceptions, such a consideration is largely absent from the political participation research agenda (see Putnam, 2000; Oliver, 2001; Leyden, 2003; Gimpel, Dyck, & Shaw, 2004). Despite the consensus surrounding the dominant explanations for engaging in voluntary political activity, this research follows the lead of Gimpel, Dyck, and Shaw (2004) who suggest that “similar people may wind up with very different voting behaviors because of where they live. Political participation has a geography, as well as a psychology” (p. 245).

Problem 2: Participation levels have declined while SES has risen over time

Scholars have established a consensus on the importance of SES as a predictor of political participation. Educational attainment, income, and occupational status all predict different forms of voluntary political activity. In light of this consensus, it would seem very likely that over time participation rates would have increased as Americans became more educated and attained higher incomes. The United States Census shows that the percentage of the population 25 years old and over with a high school diploma or higher jumped from 24.5% to 80.4% from 1940 – 2000. The opposite, however, appears to be true.

Despite a debate over whether it is true of voting in national elections, scholars agree that the levels of most forms of voluntary political activity have declined over the past several decades (Putnam, 2000; McDonald & Popkin, 2001; Rosenstone & Hansen, 2003; Abramson, Aldrich, & Rohde, 2006). Using data collected by the American National Election Studies and Roper Reports, Rosenstone and Hansen (2003) illustrate decreases in the levels of volunteering for a political party or candidate, trying to influence how others vote, writing a letter to a member of Congress, attending meetings on a town or school affair, and signing petitions (ch. 3). This finding is consistent with Putnam's (2000) work on the decline of social capital over time. Examining political participation, an important aspect of social capital, Putnam (2000) finds significant decreases in activities including attending political meetings and rallies, working for a political party, signing petitions, and writing to members of Congress. Even more drastic are declines in local community participation as measured by serving as an officer of a club, serving on a committee for a local organization, and attending a public meeting on town or school affairs (ch. 2).

These across the board declines in voluntary political activity are troubling when accounting for the sharp increases in educational attainment and income. With the dominance of the SES model and its variations, why have rates of participation declined over the past several decades? Some would argue it is because mobilization efforts have also declined (Green & Gerber, 2000; Rosenstone & Hansen, 2003). Others maintain that the increases in absolute SES do not influence participation over time because it is relative SES that matters (Abramson, Aldrich, & Rohde, 2006).

Putnam (2000) suggests that the declines in political participation are part of an even broader trend of American disengagement from society all together. Since the latter part of the 20th century, Putnam (2000) finds declines in the number of people who serve in leadership roles of local organizations, club meeting attendance, memberships to chapter-based organizations, and work-related organizations including unions and professional association. Even traditionally high church attendance has declined. Putnam (2000) also finds declines in informal social activities. All of the following have declined: having friends over, going to a friend's house, family dinners, card games, informal socializing, and playing in sports leagues.

While the blame for these trends is attributed to a number of different contributing factors, Putnam (2000) would surely agree with others who suggest that the “decline of turnout since 1960 resulted from the offsetting of some forces that stimulated turnout by others that depressed it” (Abramson, Aldrich, & Rohde, 2006; p. 94). This paper will present yet another force, the built environment of cities and city neighborhoods, which might be associated with these declines.

To sum, problem 1 suggests that there has been an over-emphasis on individual explanations for political participation and an under-emphasis on environmental explanations. Environmental factors have been broadly shown to affect other aspects of individual behavior. Problem 2 maintains that the consensus established around SES as a dominant predictor of political participation cannot account for the declining levels of participation that have occurred over time.

It is important for new scholarship to continue addressing the question of voluntary political activity. This chapter seeks to improve our understanding of

political participation while taking the findings of past research into account along with the two problems addressed above.

The Built Environment and Political Participation

This chapter suggests that variations of the built environment of cities and city neighborhoods may affect levels of political participation and can account for the two problems associated with this line of research. As has been described in the previous chapters (see chapter 1 for a more comprehensive description), the built environment of different neighborhoods can vary based upon whether they are more single-use or mixed-use and by whether they are more car-dependent or pedestrian-oriented. Typically, single-use neighborhoods are car-dependent because destinations are segregated by building type and are characterized by a low level of density. As a result, residents are typically dependent upon use of private automobiles to travel to and from their daily destinations. Conversely, mixed-use neighborhoods are typically pedestrian-oriented because different types of destinations are located within a similar geographic area, making walking or biking more feasible to address daily needs. Such neighborhoods are typically characterized by a higher level of density (Jacobs, 1961; Beatley & Manning, 1996; Cervero, 1998; Duany, Plater-Zyberk, & Speck, 2000; Oliver, 2001; Smart Growth Network, 2002; Leyden, 2003; Kawachi & Berkman, 2003; Frumkin, Frank, & Jackson, 2004).

With an emphasis on individual explanations for political participation (Problem 1), an examination of the effects of the design of cities and city neighborhoods would put such explanations into an environmental context.

Considering the built environment in the political participation literature could also help to account for part of the declines in political activity over the past several decades while levels of SES have continually risen (Problem 2). Although this chapter does not present time-series data to show causation, it can test whether variations in the built environment effect political participation with the assumption that most walkable, mixed-use neighborhoods are older than car-dependent single-use neighborhoods (Oldenburg, 1989; Lewis, 1996; Beatley & Manning, 1996; Nivola, 1999; Levy, 2000; Duany, Plater-Zyberk, & Speck, 2000; Oliver, 2001). Perhaps the changes in the dominant neighborhood design style off-set the raising levels of SES to depress levels of political participation among the electorate.

This research is not the first to examine how aspects of the way that cities and city neighborhoods are built might affect voluntary political activity among residents. By distinguishing six characteristics of suburban communities (i.e. population size, economic composition, racial composition, land use, city age, and political institutions), Oliver (2001) concludes that levels of political participation is dependent upon the environmental context of where people live while taking into account of the factors that make people individually different.

Oliver's (2001) work is compelling and provides a strong foundation for political scientists to study the implications of the human environment on voluntary political activity. His work has been widely accepted in the political science community through his book (Oliver, 2001), and his findings have gained prominence through peer-reviewed publications in both the *American Journal of Political Science* (1999) and the *American Political Science Review* (2000). Unfortunately, however,

Oliver (2001) stops short of differentiating between the built environment of cities and city neighborhoods. The unit of analysis in Oliver's (2001) research is a community's municipality. Using municipalities would suggest that a place like Richmond, Virginia or Los Angeles, California, which are each composed of several different types of neighborhoods, are considered as one unit. Oliver's (2001) use of municipalities does not account for variations in the types of neighborhoods and built environments that exist *within* each municipality. Morgantown and Los Angeles alike are subdivided into drastically different neighborhood styles. Some people live in mixed-use, pedestrian oriented built environments while others live in single-use, car-dependent built environments even within the same municipality. It is understandable that Oliver (2001) would examine municipalities as he is a political scientist and the municipality is the political unit of communities. However, variations in the physical design of neighborhoods under the jurisdiction of a single municipality are left unaccounted for. In order to understand the impacts of the environmental context on voluntary political activity, research should account for this important variation.

Humphries (2001) studies the effects of individual and aggregate levels of commuting on a political participation index composed of seven different activities. Although level of commuting is not a comprehensive measurement of the built environment, it can be associated with variations of the types of neighborhoods in which residents live (Beatley & Manning, 1996; Cervero, 1998; Duany, Plater-Zyberk, & Speck, 2000; Leyden, 2003; Frumkin, Frank, & Jackson, 1994). In two multivariate models controlling for other factors, Humphries (2001) finds that individual level

commuting is not associated with political activity while aggregate commuting has a significant negative effect on aggregate participation.

In his work on social capital, Putnam (2000) argues that changes in the built environment over the past several decades and beyond deserves at least partial credit for the trending disengagement from society that has occurred among Americans. He maintains that the development of suburban style neighborhoods has created a “physical fragmentation of our daily lives [and] has had a visible dampening effect on community involvement” (p. 215). Suburban style neighborhoods are typically considered those that are single- use, car-dependent (Duany, Plater-Zyberk, & Speck, 2000; Frumkin, Frank, & Jackson, 2004). Although political participation is one of several a key indicators of social capital, Putnam (2000) does not test this hypothesis.

The work of Leyden (2003) tests Putnam’s (2000) theory and fills the gap left by Oliver (2001) by considering how variations of the built environment of city neighborhoods may affect political participation and social capital. Focusing his research on different types of neighborhoods within one city, Leyden (2003) tests whether levels of political participation are affected by variations of the built environment. It is found that residents who live in neighborhoods that are walkable, contain a diversity of uses with plenty of accessible shared public places are more likely to vote, volunteer to work for a political party, and contact a public official than those who live in single-use, car-dependent neighborhoods, all things being equal (Leyden, 2003). While the focus of Leyden’s (2003) work is on social capital (of which political participation is a contributor), it provides a theoretical foundation to fit the built environment into the broader political participation literature.

In light of this review of literature, there are three research questions that progress from broad to narrow that this chapter can address. First, does the environment affect individual behaviors? Second, does the manner in which cities and city neighborhoods are designed affect political participation among residents? Third, does the built environment affect political participation directly or through fostering the mobilization efforts of parties and other political leaders?

Theoretical Framework

Political participation is a key indicator of social capital (Putnam, 2000; Leyden, 2003). Putnam (2000) hypothesizes and Leyden (2003) demonstrates that the built environment has an effect on levels of social capital and voluntary political activity. As an extension of this line of research, the current chapter will seek to support this finding while placing the built environment into the broader political participation literature. SES, political engagement, and mobilization will be addressed.

There is also reason to believe that there is an indirect link between the built environment and political participation through mobilization. Mobilization efforts are a key predictor of the likelihood that an individual will engage in voluntary political activity (Wielhouwer & Lockerbie, 1994; Gerber & Green, 2000; Rosenstone & Hansen, 2003). As rational economic actors “once political leaders decide to pursue a mobilization strategy, they want to get the most effective number of people involved with the least amount of effort” (Rosenstone & Hansen, 2003; p. 30). As noted, the most effective method of mobilization is through face to face interactions by

canvassing people at their home (Gerber & Green, 2000). Political leaders and organizations aiming to connect with the most people using the least amount of effort are better served targeting high rather than low density neighborhoods. High density neighborhoods are typically characterized as more walkable and mixed-use (Beatley & Manning, 1996; Cervero, 1998; Duany, Plater-Zyberk, & Speck, 2000; Frumkin, Frank, & Jackson, 2004). Concentrating mobilization efforts in neighborhoods that are of a higher density are more likely to be worth the time and energy involved than by concentrating on lower density city neighborhoods. More face to face contacts can be made in a shorter amount of time in such neighborhoods.

Of course, political leaders also typically target people that they already know, people who are centrally located within a large social network, and people who are likely to be influential (Rosenstone & Hansen, 2003). People of a higher SES are most likely to meet such criteria; therefore, any study of mobilization should control for educational attainment, income level, and/or occupational status.

Lastly, there is reason to believe that the length of time that an individual has lived in their neighborhood will be associated with their level of political activity. In their CVM, Verba, Schlozman, and Brady (1995) admit that their “analysis of the factors that foster participation has omitted a potentially important one: ties to the local community” (p. 452). A follow up to their CVM model shows that the length of time that people live in their community and owning a home have a statistically significant affect on levels of overall political participation. Local voluntary activity is especially affected by these factors (Verba, Schlozman, & Brady, 1995).

Other research is inconsistent in demonstrating that these objective ties to the community affect political participation. This is likely because of significant variations in the operationalization of length of residence (Alford & Scoble, 1968; Strate, et. al., 1989; Leighley & Vedlitz, 1999; Humphries, 2001; Rosenstone & Hansen, 2003; Kang & Kwak, 2003; Gimpel, Dyck, & Shaw, 2004).

There are several reasons to expect length of residence to matter. There are start-up costs associated with engaging in voluntary political activity. Institutional factors, such as complex registration laws, may become a barrier too great for new members of a community to overcome in their first election (Powell, 1986). Gimpel, Dyck, and Shaw (2004) maintain that new community members may struggle with “learning about the unfamiliar names on the long ballot, the relevant issues facing their community, and where they must go to cast their vote” (p. 344). Although not based in the discipline of political science, sociologists have provided further reasons to suspect that objective ties to the community may affect political participation. In their classic study on community attachment, Kasarda and Janowitz (1974) demonstrate that length of residence is significantly associated with how interested people are with what goes on in their community and how likely they are to belong to a formal organization in their community. Both of these factors are associated with political participation (Verba, Schlozman, & Brady, 1995; Putnam, 2000; Rosenstone & Hansen, 2003). Individual length of residence and aggregate residential stability have further been linked to engaging the informal social life of a community (Sampson, 1988; Taylor, 1996). It is within such networks that people may be more likely to become targets of a mobilization effort. Such efforts enhance the likelihood

that people will engage in voluntary political activity (Rosenstone & Hansen, 2003).

Length of residence is considered as an independent variable in this chapter's modeling of voluntary political activity and mobilization.

As a result of this theoretical framework, two models can be hypothesized.

Table 9 presents models 1 and 2.

Table 9
Hypothesized Models

Model 1	Participation = Built Environment + Political Engagement + Mobilization + SES + Length of Residence + error
Model 2	Mobilization = Built Environment + SES + Length of Residence + error

Methods

In order to test these hypotheses, a single wave survey was developed and distributed to a random sample of 500 households with an 18 mile radius of downtown Pittsburgh, Pennsylvania. Of the 500 surveys sent, 18 were returned unopened and labeled as undeliverable. Exactly 101 surveys were completed and returned out of the remaining 482 surveys. This creates a response rate of 20.95%. The only attempt to control which member of a household was to complete the survey was to ask that the survey be completed by one adult (18 years or older) member of the household.

Validity tests of the survey were conducted upon the review of the staff and voluntary interns at the West Virginia Institute for Public Affairs, undergraduate students enrolled in Political Science 240 at West Virginia University, members of the dissertation committee, and friends and family members of the survey's author.

Each item on the survey was tested for reliability. This was accomplished by distributing the survey to 25 undergraduate students enrolled in Political Science 240 at West Virginia University two different times during the Spring, 2009 semester. The responses of each student during time 1 was compared to the responses during time 2. A two way random intraclass correlation produced a Cronbach's alpha score for each survey item. Using the Landis and Koch (1977) benchmarks for the strength of agreement of responses from time 1 to time 2, it can be reported that all items were "almost perfectly" consistent (p. 165).

The survey was sent into the field in March, 2009 and completed surveys began coming in within the week. The West Virginia Institute for Public Affairs supported this research. It was approved after a second protocol submission for human subject research by the West Virginia University Institutional Review Board.

Pittsburgh, Pennsylvania was selected because it contains neighborhoods that can be characterized as pedestrian-oriented, mixed-use and car-dependent, single-use. Having a variation of neighborhood types ensures that this research can examine how different types of built environments affect the dependent variables. While the literature is fairly consistent in the definition and conceptualization of the built environment, its measurements have varied. Past studies have employed different types of survey questions (Leyden, 2003; Leyden, Goldberg, & Duval, 2009), GIS technology (Krizek and Johnson, 2006), and even "retail floor area ratio" (Frank, et al., 2006) to measure the built environment.

This chapter employs Leyden's (2003) Walkability Index to determine the built environment of each respondent. It is a subjective measurement and is based

upon the self-perceptions of the places that people live. Respondents are given a list of 12 different potential destinations common to mixed-use neighborhoods (e.g., restaurant, place of worship, and public park). Respondents are asked “If you or another family member wanted to, which of the following could you walk to without too much trouble?” (Leyden, 2003). Respondents are also given the option to indicate “None of the above. It is hard to really go anywhere without a car”. As in Leyden’s (2003) research, “each respondent [is] assigned a neighborhood walkability score” based upon how many different places they report being able to walk to without too much trouble (p. 1547). Scores on this index ranged from 0 – 12. The mean Walkability Index score was 3.95, the standard deviation was 3.56, and the median response was 4.

The Walkability Index addresses two major characteristics of the built environment. First, if people report that they are able to walk to a mixture of different places in their neighborhood, then it is an indication that they live in a pedestrian-oriented neighborhood. Pedestrian-oriented neighborhoods are typically conducive not only to walking, but also biking and public transportation (Beatley & Manning, 1996; Cervero, 1998; Duany, Plater-Zyberk, & Speck, 2000; Leyden, 2003; Frumkin, Frank, & Jackson, 2004). If people report that they are not able to walk to a mixture of different places in their neighborhoods, then it is an indication that they live in a car-dependent built environment. Second, the Walkability Index addresses a differentiation between mixed-use and single-use neighborhoods. If people are able to walk to the destinations provided, then their home or apartment likely shares a geographic area with the destinations provided which satisfies the definition for a

mixed-use built environment. If they not able to walk to the destinations provided from their home or apartment, then it is likely that they are forced to drive indicating that the respondent lives in a more single-use style of the built environment. The Walkability Index was created by Leyden (2003) and has since been employed for other studies of the built environment (see Rohrer, Pierce, & Denison, 2004).

Six questions on the survey inquired about political participation. Each question required a response of either 1 = yes or 0 = no. Although this research is largely concerned with local forms of political participation, respondents were first asked about voting. The question adopted for the survey was developed by the American National Election Study and either the exact wording or minor variations have been adopted by a number of studies within the political science discipline (see Wielhouwer & Lockerbie, 1994; Verba, Schlozman, & Brady, 1995; Rosenstone & Hansen, 2003). The question as it appears on the survey is as follows: “In talking to people about the election, we find that a lot of people weren’t able to vote because they weren’t registered or they were sick or they just didn’t have time. How about you, did you vote in the elections this November?”

The remaining five questions inquired about local voluntary political activity. Versions of these questions, with minor variations, have been developed by the American National Election Study and Roper Social and Political Trends survey and employed by other studies of political participation (see Leighley & Vedlitz, 1999; Putnam, 2000; Oliver, 2001; Rosenstone & Hansen, 2003). Respondents were given the following queue “In the past two or three years, have you...” This was followed by the following list of survey items:

- Spoke to or written to a city, municipal, or county official?
- Signed a petition either for or against action by your city, municipal, or county government?
- Take part in a protest, march, or demonstration on some local issue?
- Attended meetings of a city or municipal council, a school board, a zoning board, a planning board, or the like?
- Gotten together informally with or worked with others in your community or neighborhood to try to deal with some type of community issue or problem?

An additive index was created based upon the responses from the 6 political participation questions. Respondents were each assigned an index score ranging from 0 (no participation) to 6 (yes to all 6 items). The mean Participation Index score was 2.24, the standard deviation was 1.44, and the median score was 2.

The additive index was employed for several reasons. First, this research is interested in the extent to which people engage in voluntary political. Because an effort is not made to determine how many times a respondent engaged in a particular act over the past two or three years, the additive index allows respondents to be differentiated by the extent of their participation beyond a yes or no for each act. Of course an assumption to be made by employing this additive index is that the more times a respondent reports “yes”, the higher their level of involvement in voluntary political activity. Second, because of the relatively small sample size, the additive index allowed for greater variation in the dependent variable. Several questions associated with political participation were heavily skewed yes or no. For example, 90% of the sample reported that they had voted while 96% reported that they had not protested or marched on some local issue. It would be difficult to test whether the

built environment affects political participation if the dependent variables do not vary. Thirdly, this research follows the lead of major contributors to the field of political behavior who similarly employ an additive index to represent overall levels of political participation in their research (see Verba, Scholzman, & Brady, 1995).

Mobilization was measured by asking three questions. Each item required a response of either 1 = yes or 0 = no. The items adopted for the survey are almost identical to the versions formulated for Verba, Scholzman, & Brady's (1995) Citizen Participation Study and are similar to those established by the American National Election Study as employed by Oliver (2001). Respondents were given the following queue "In the past 12 months, has anyone contacted you personally..." This was followed by the following list of survey items:

- Asking you to contact a government official?
- Asking you to serve on a community board or council?
- Asking you to support a particular political party or candidate?

An additive index was created based upon the responses from the 3 items addressing mobilization. Respondents were each assigned an index score ranging from 0 (no mobilization) to 3 (yes to all 3 items). The mean Mobilization Index score was 1.21, the standard deviation was 0.85, and the median score was 1.

This chapter also considers a number of other factors that have been found to predict political participation and mobilization in past research. SES is one such factor and was measured by considering the educational attainment of the survey respondents. Educational attainment was measured by asking respondents to "please

check (✓) the highest grade of school or year of college you have completed.”

Responses included 1 = Less than high school; 2 = High school diploma (including GED); 3 = Some college; 4 = Associates degree (2 year) or technical training; 5 = Bachelor’s degree; 6 = Some graduate training; 7 = Graduate or professional degree.

The mean score for educational attainment was 3.92, the standard deviation was 1.85, and the median response was 4. For the purposes of analysis, this variable was condensed and recoded (Less than high school = 0; High school diploma, Some college, and Associates degree (2 year) or technical training = 1; Bachelor’s degree, Some graduate training, and Graduate or professional degree = 2).

Income is also an important factor for SES, but was omitted from the analysis. There were several reasons for this. First, the literature consistently demonstrates that many voluntary political acts, not including making a financial contribution, are better predicted by education than income (Wolfinger & Rosenstone, 1980; Powell, 1986; Verba, Schlozman, & Brady, 1995; Plutzer, 2002). Making a financial contribution is not considered in this chapter. Secondly, if included in the analysis, income and education would likely create multicollinearity as the two variables have a moderate correlation level. Third, a significant number of respondents chose not to answer the question pertaining to their income creating a problem of missing data.

Political engagement has been found to predict the willingness of people to engage in voluntary political activity (Powell, 1986; Wielhouwer & Lockerbie, 1994; Verba, Schlozman, & Brady, 1995). Political interest, efficacy, knowledge, and strength of party identification are the components of political engagement and all are addressed in this chapter. Political interest and efficacy are measured by using the

same questions and choices as used in the Citizen Participation Study (Verba, Schlozman, & Brady, 1995). Political interest is measured by asking the following question: Thinking about your local community, how interested are you in local community politics and local community affairs? 4 = Very interested; 3 = Somewhat interested; 2 = Slightly interested; 1 = Not at all interested. The mean score for political interest was 3.92, the standard deviation was 0.79, and the median response was 3. Efficacy is measured by asking: How much influence do you think someone like you can have over local government decisions? 4 = A lot; 3 = Some; 2 = Very little; 1 = None. The mean score for efficacy was 2.41, the standard deviation was 0.87, and the median response was 2.

Political knowledge is measured by asking people to address the following question: Some people know more about politics than others. How about you, how much do you know about politics and public issues? 4 = A lot; 3 = Some; 2 = Very little; 1 = None. This question was formulated by the author of this survey without precedence in any other known research. Many studies of political participation use fact-based political quizzes to determine the political knowledge of respondents (see Verba, Schlozman, & Brady, 1995; Kang & Kwak, 2003). A decision was made that in a small scale mail survey, such as the one described here, there is potential that such questions may harm the response rate. Therefore, the self-assessed political knowledge item was drafted and employed. The mean score for political knowledge was 3.00, the standard deviation was 0.57, and the median response was 3.

Strength of party identification was measured by using a well-known and often used question formulated for the American National Election Study. The wording is

as follows: Generally speaking, do you usually think of yourself as a Republican, a Democrat, an Independent, or what? Respondents are provided with the following choices: 4 = Strong Democrat; 3 = Weak Democrat; 2 = Independent-Democrat; 1 = Independent-Independent; 2 = Independent Republican; 3 = Weak Republican; 4 = Strong Republican. The mean score for strength of party identification was 2.75, the standard deviation was 1.09, and the median response was 3.

Lastly, length of residence is measured by asking the following question: About how many years have you lived in your current neighborhood? Respondents are asked to write their answer in years. Responses ranged from 0 – 80 years. The mean was 25.88, the standard deviation was 19.57, and the median response was 21.50.

Analysis

Ordered logit models are employed to test this chapter's two hypotheses. This maximum likelihood estimation is used because the dependent variables (i.e. participation index and mobilization index) present ordinal data and the differences between the categories cannot be assumed as consistent (Long & Frees, 2003). Ordered logit models produce log-odds coefficients and z- statistics are used to determine the significance of each variable in the model. The data were first entered into Microsoft Excel before being converted into Stata to run all analyses.

Table 10
Ordered Logit Models Predicting Political Participation Index

	Model 1	Model 2	Model 3	Model 4	Model 5
Education	.567** (1.78)	.269 (0.81)	.190 (0.52)	.294 (0.74)	.524 (1.26)
Mobilization		1.044* (4.30)	.782* (2.84)	.769* (2.70)	.693* (2.41)
Influence			.097 (0.34)	.062 (0.21)	-.074 (-0.25)
Interest			.792* (2.73)	.723* (2.48)	.904* (2.96)
Strength of Party			.022 (0.12)	.099 (0.53)	.031 (0.17)
Political Knowledge			.349 (0.98)	.325 (0.88)	.274 (0.74)
Length of Residence				.020** (1.84)	.025* (2.21)
Walk Index					.588* (2.22)
N	101	101	101	96	96
LR χ^2	3.18	23.03	36.17	35.89	40.98
Log likelihood	-168.38	-158.46	-151.88	-142.81	-140.27

Notes: * $p \leq .05$; ** $p \leq .10$; z-statistics in parentheses

Table 10 presents the results of five ordered logit models examining how the independent variables affect political participation. Model 1 is a bivariate model demonstrating that among the survey sample, educational attainment has a positive, statistically significant affect on political participation. The more educated a person is, the higher they score on the political participation index which indicates that they are more engaged in voluntary political activity than those who are less educated.

This finding is consistent with a long line of political participation research which finds that SES has a significant affect on the likelihood that a person will participate in the political process. Model 2 adds the mobilization index into the model along with educational attainment. Model 2 shows that that mobilization is strongly and statistically significantly associated with political participation. The higher a respondent scored on the mobilization index, the higher they scored on the political participation index, even when controlling for educational attainment. In fact, the relationship is so strong that educational attainment loses its significance when a respondent accounts for whether a person was asked to contact a government official, serve on a community board, or support a particular party or candidate. This is not to say that education is not important for political participation. Examining Model 1 and Model 2 together presents the likelihood that educated people are more likely to participate because they are mobilized. This chapter will provide further evidence of this below.

Model 3 introduces Verba, Schlozman, and Brady's (1995) political engagement variables into the equation. Accounting for educational attainment and the mobilization index score, people who are interested in local community politics and local community affairs are significantly more likely to participate in politics than those who are not, all things being equal. It is not clear from examining Model 3 as to why the other political engagement variables do not significantly affect scores on the political participation index. One can posit that it is possible that strength of party identification only matters for engagement in the national or state political process. Political knowledge may not have affected participation because of the question

wording. As noted in the previous section, the political knowledge question was drafted by the author of this chapter and is the least established question on the survey. Although four choices were provided, over 70% of the sample gave the same answer to this question. It is possible that a different, more established question could have yielded different results.

Model 4 includes the length of time in which a respondent has lived in the current community into Model 3. As predicted by past research, the longer a person has lived within the same neighborhood, the more likely they are to engage in local political activity. This is true even when controlling for educational attainment, mobilization, and political engagement. Among the sample, greater residential mobility depresses levels of voluntary political activity.

Model 5 tests whether the built environment affects levels of political participation by including respondents' walkability index score into the model. The walkability index, which accounts for whether a neighborhood is mixed-use, pedestrian oriented or single-use, car-dependent has a positive statistically significant affect on the extent to which a respondent engages in voluntary political activity. The significant walk index variable demonstrates that the more places in which a respondent can walk to without too much trouble, the higher they score on the political participation index. For every one unit increase in the walkability index, the ordered log-odds of the political participation index is expected to increase by .588 while the other variables in the model are held constant. *While each form of political participation was coded 0 = no and 1 = yes, an increase of one unit on the walkability index leads to a half of a new act of political participation.* This finding accounts for

SES as measured by educational attainment, mobilization as measured by scores on the mobilization index, political engagement as measured by political interest, knowledge, efficacy, and strength of party identification, and the length of time in which a respondent has lived in their current neighborhood. Support is found for the first hypothesis as a result.

To test the second hypothesis, ordered logit models are employed with the mobilization index as the dependent variable. The mobilization index is determined for each participant as an additive scale based upon how many “yes” answers they reported when asked if they have been requested to contact a government official, serve on a community board or council, and support a particular party or candidate. Those who score highest on the index were mobilized the most as they reported an answer of “yes” to all three questions. Answering “no” to all three questions scores a 0 on the mobilization index and indicates that the respondent was not asked to engage the political process.

Table 11
Ordered Logit Models Predicting Mobilization Index

	Model 6	Model 7	Model 8
Education	.919* (2.71)	.936* (2.50)	.980* (2.60)
Length of Residence		.009 (0.86)	.011 (1.13)
Walk Index			.493* (1.98)
N	101	96	96
LR χ^2	7.59	6.43	10.43
Log likelihood	-119.40	-114.41	-112.41

Notes: * $p \leq .05$; z-statistics in parentheses

The results of three models are displayed in Table 11. Model 6 demonstrates that educational attainment is significantly associated with the likelihood that an individual will be asked to engage the political process. This finding is consistent with the literature suggesting that individuals who are more likely to agree to participate when being asked and have the most influence when they do participate are more likely to be targeted by political leaders and parties than others. People with higher levels of education meet those criteria better than those with lower levels of educational attainment (Rosenstone & Hansen, 2003). Including length of residence into the model does not change the substantive results. Model 7 demonstrates that educational attainment is a dominant predictor of mobilization, when accounting the length of time that an individual has lived in the same neighborhood. Length of residence, however, is not associated with being asked to participate among the sample. Model 8 shows that as with political participation directly, the built environment is significantly associated with being asked to engage the political

process. The higher a respondent scores on the Walkability Index, the more likely they are to be asked to participate in voluntary political activity when accounting for the affects associated with educational attainment and length of residence. This means that respondents who live in places that are more likely to be characterized as mixed-use and pedestrian oriented are more likely to be asked to participate in politics than those living in places that are more likely to be characterized as single-use and car-dependent, all things being equal. This even accounts for differences in educational attainment. Although length of residence was not found to affect mobilization, the remainder of the second hypothesis is supported by the findings reported in Model 8.

Conclusion

This chapter demonstrates that the built environment has an effect on individual political behaviors. Accounting for differences such as levels of education and personal attitudes, where we live effects what we do. This chapter demonstrates that engaging the political process is associated with the type of neighborhood in which people live. Respondents who live in places characterized as walkable, mixed-use are more likely to participate in voluntary political activity than those living in car-dependent, single-use neighborhoods. This finding adds to the political participation literature by suggesting that the environmental context, along with countless individual characteristics of respondents, affects political behavior.

The built environment's affects on participation is also indirect. Individuals are more likely to participate in politics if they are asked to do so. Taking into account differences that exist among people, the type of neighborhood in which a person lives

is associated with being asked to participate. The most effective form of mobilization through door to door canvassing, and from a practical stand point, more houses can be approached in a shorter amount of time in a pedestrian-oriented, mixed-use neighborhood than in a lower density, car-dependent neighborhood. As a result, the likelihood of being mobilized is associated with the type of neighborhood in which people live.

Of course the findings reported in this chapter only apply to the sample. Future research should consider examining neighborhood differences in other cities to determine the generalizability of the findings presented here. Also, future research should parse out the differences that may exist among different participatory acts. The resources required to engage in each act differ (Verba, Schlozman, & Brady, 1995). It is not clear based on this chapter whether the built environment has a different effect on different methods of political participation. This chapter does demonstrate, however, that along with many other behaviors, variations in the built environment are associated with the likelihood that an individual will engage in the political process.

Chapter 5

Conclusion

This dissertation project explores several ways in which the way that cities and city neighborhoods are planned and built and maintained affects the well-being of people's lives and the extent to which they engage in voluntary political activity. The introductory chapter initially defines key concepts and terminology associated with variations of the built environment as determined by the urban planning literature. Neighborhoods can be differentiated based upon whether they are mixed-use or single-use and by whether they are pedestrian-oriented or car-dependent (Jacobs, 1961; Kunstler, 1996; Beatley & Manning, 1996; Cervero, 1998; Duany, Plater-Zyberk, & Speck, 2000; Oliver, 2001; Smart Growth Network, 2002; Portnoy, 2003; Leyden, 2003; Kawachi & Berkman, 2003; Frumkin, Frank, & Jackson, 2004; Ezell, 2004). These variations are associated with the level of density among buildings and ultimately humans as they live their lives.

The major argument of this dissertation project, as presented in the first chapter, is that these variations are not without consequence. Many factors that are related to maintaining a healthy quality of life are affected by the type of neighborhood in which people live (e.g., Jacobs, 1961; Beatley & Manning, 1996; Oldenburg, 1998; Putnam, 2000; Duany, Plater-Zyberk, & Speck, 2000; Freeman, 2001; Dreier, Mollenkopf, & Swanstrom, 2001; Oliver, 2001; Kawachi & Berkman, 2003; Leyden, 2003; Saelens, Sallis, & Frank, 2003; Frumkin, Frank, & Jackson et. al, 2004; Doyle et. al., 2006; Frank, et. al., 2006; Handy, Cao, & Mokhtarian, 2006; Forsyth, et. al., 2007; Ryan & Weber, 2007; Florida, 2008). Adding a growing body of literature that is continually finding new ways in which the design and maintenance

of city neighborhoods affects our well-being, this dissertation project examines how variations in the built environment of cities and city neighborhoods affect individual happiness, the connections that people feel towards others in their neighborhood, city pride, feeling satisfied with life in the city, and political participation.

The first chapter also argues that the built environment of a city neighborhood is an outcome associated with public policy decisions. Along with other major contributing factors such as advances in technology and transformations of the American economy, the federal government- through policy decisions- has largely supported planning practices in line with a single-use, car-dependent form of the built environment throughout our cities and city neighborhoods (Baxendall & Ewen, 2000; Levy, 2000; Frumkin, Frank, & Jackson, 2004; Williamson et. al., 2006). It further argues that a dominant policy subsystem composed of powerful land developers, builders, the automobile and oil industries, the road building industry, big-box retailers, restaurant chains, and elected officials have an economic and electoral incentive to continue building neighborhoods in this manner despite the outcomes associated with its development (Beatley & Manning, 1996; Lewis, 1996; Duany, Plater-Zyberk, & Speck, 2000; Stiglitz, 2006). With little organized competition, this dominant subsystem has been incredibly successful. In light of its relationship to public policy decisions, this dissertation project examines the effects of variations in the built environment as a policy evaluation.

Chapter 2 examines how variations in the built environment of city neighborhoods, along with their conditions, affect individual levels of happiness among residents. The important mechanism in this relationship is feeling socially

connected. Past research has demonstrated that city neighborhoods that contain accessible places for people to congregate and be in the company of others foster social connections among residents (Oldenburg, 1989; Florida, 2008). People are more likely to feel connected to others if neighborhoods provide places these connections to grow. Such places can be in the form of a public park, community center, pub, coffee shop, beauty salon, or other types of places typically found in mixed-use development (Oldenburg, 1989). It is particularly important for such places to be accessible by modes of transportation extending beyond the private automobile. People who can benefit the most from congregating with others in a public setting are those who may not have the ability or means to own and operate a car (Beatley & Manning, 1996; Duany, Plater-Zyberk, & Speck, 2000). Therefore, a viable public transportation system becomes crucial for social connections to grow.

If variations in the built environment affect social connections, then it is likely that such variations will also affect happiness. Previous research has established the link between social connections and individual happiness (Putnam, 2000; Layard, 2005; Helliwell & Putnam, 2006; Holder & Coleman, 2008; Winkleman, 2008). People who feel a part of a group or a community are indeed happier with their lives. Those who are more trusting and who have more contact with other people also tend to be happier as individuals (Putnam, 2000). Conversely, people who are socially isolated are more likely to feel depressed, all things being equal. Chapter 2 provides empirical support for the argument that the built environment of neighborhoods can affect individual levels of happiness because neighborhoods vary on how well they bring residents into social contact with each other.

Using survey data collected from a random sample of 1000 residents in 10 cities across North America, Europe, and Asia, chapter 2 confirms the hypothesis that variations in the built environment affect individual happiness. People are happier when they report that it is convenient to use public transportation in their city, when they have easy access to culture and leisure facilities such as movie theaters, museums, and concert halls, and when they agree that there are a sufficient number of libraries in their city. These findings are significant even when accounting for other important predictors of happiness such as income and health. Further, the significance of these findings take into account the differences that may exist from living in one city versus another.

Along with these amenities, the conditions of the cities and city neighborhoods are important for happiness. Cities that are beautiful, are a good place to rear and care for children, and have a cost of living is not too high are likely to foster happiness among residents, all things being equal. These findings support an argument that suggests that happiness is not just a function of the attainment of basic needs and individual factors. Chapter 2 demonstrates that local decision makers, including planner and elected officials, have the ability to influence levels of happiness among residence by the way the neighborhoods are built and designed, and by the attention provided to their conditions.

Chapter 3 explores the relationship between the built environment and the conditions of the public sphere with factors closely associated to the existence of a “sense of community”. These factors include feeling socially connected to other residents with a neighborhood and feeling connected to the city itself as determined by

levels of civic pride and satisfaction with the city as a place to live (McMillan & Chavis, 1986; see also Chavis & Pretty, 1999; Chipuer & Pretty, 1999; Bow & Buys, 2003; Peterson, Speer, & Hughey, 2006; Tartaglia, 2006; Pretty et. al., 2007). Using the same data set as the previous chapter 2, it is found that variations in the built environment and the conditions of the public sphere do indeed affect social and community connections. The survey data shows that when controlling for other factors, people who agree that there are many parks and sports facilities in their city feel more connected to others. Attributes of the public sphere including feeling that the city is beautiful, agreeing that the city is a good place to rear and care for children, and feeling safe walking around at night and drinking publicly provided water are associated with social connections.

One of the strongest predictors of social connections is another factor associated with sense of community: civic pride. Chapter 3 demonstrates that other aspects of the built environment are associated with how proud residents feel to live in their city. Residents who report that they have easy access to plenty of shops, supermarkets, and department stores in their city, who have easy access to culture and leisure facilities such as movie theaters, museums and concert halls, and who agree that it is convenient to use their cities' public transportation system are more proud to live in their city than others, all things being equal. This finding indicates that the built environment affects social connections both directly and indirectly through civic pride. Only one aspect of the built environment was found to be associated with social connections; however, three others are significantly related to civic pride which is strongly associated with feeling socially connected. As with social connections, there

are several aspects of the public sphere that are significantly associated with civic pride. These include factors associated with the aesthetics of the city and city neighborhood, the provision of basic needs such as water and safety, local economic conditions, and providing a good place to raise a family.

Finally, chapter 3 finds that the built environment and the conditions of the public sphere are strongly associated with resident's feeling satisfied with life in their city. People are more satisfied with life in their city when they agree that there are many parks and sports facilities in their city, it is convenient to use public transportation (e.g. subways, trains, or buses) in my city, there is easy access in my city to plenty of shops, supermarkets, and department stores, and there is easy access to culture and leisure facilities such as movie theaters, museums and concert halls, all things being equal. Further, there are several factors associated with the conditions of the public sphere that affect satisfaction with the city as a place to live. These include aesthetics, basic needs, safety, local economic conditions, and whether residents agree that their city is a good place to rear and care for children. As with civic pride, feeling socially connected is strongly associated with how satisfied people are with life in their city. People who feel connected to others in their neighborhood are more satisfied with their city. The importance of social connections permeates throughout both chapters 2 and 3.

Using an original data set, Chapter 4 provides empirical support for the hypothesis that among the sample, variations in the built environment affect political participation. The physical design of cities and city neighborhoods affects the extent to which individuals engage in voluntary political activity. People who live in places

characterized as more walkable, presumed to be pedestrian-oriented and mixed-use are more likely to participate in politics than those in more car-dependent, single use neighborhoods, all things being equal. This finding is supported even when controlling for other factors long found to be associated with political participation such as socio-economic status as determined by educational attainment and political engagement as measured by interest in politics, efficacy, political knowledge, and strength of party identification. The length of time an individual has lived in their current neighborhood is also associated with the extent to which they participate in politics. The longer a person has lived in their neighborhood, the more likely they are to engage in voluntary political activity, all things being equal.

The association between variations in the built environment and political participation is both direct and indirect. The direct relationship demonstrates that people are more likely to engage in the political process if they are residents of a walkable, mixed-use neighborhood, all things being equal. This finding is not surprising as past research has found that these variations affect levels of social capital among residents. Political participation is a key feature of social capital (Putnam, 2000; Leyden, 2003).

There are several reasons to posit why the built environment has a direct effect on political participation. This direct relationship is likely because such residents feel more connected to their neighborhood and are, therefore, more likely to engage in the decisions of its future. It is also likely that in walkable neighborhoods, it is more convenient for residents to participate because such places typically have better public transportation systems that take mobility out of the question for those who cannot

afford or operate a private automobile. In car-oriented, single-use development, it is likely that the costs associated with participation in politics is higher. As the costs become higher, participation levels are likely to decline. These relationships are not tested in this dissertation and could form the basis of a future research agenda.

The indirect relationship introduces the concept of mobilization into the equation. Past research demonstrates that people are more likely to voluntarily engage the political process if they are asked to by a political leader or organization (Gerber & Green, 2000; Rosenstone & Hansen, 2003). The most effective method of requesting participation among members of the electorate is through door to door canvassing at peoples' residents as compared to phone calls and mail (Gerber & Green, 2000). This research suggests that people are more likely to be personally contacted and asked to contact public officials, serve on a community board or council, and support a particular political party or candidate if they live in a pedestrian-oriented, mixed-use neighborhood, all things being equal.

This indirect relationship is likely associated with the higher density of housing in mixed-use, pedestrian-oriented neighborhoods. The costs associated with engaging in a mobilization strategy require political leaders and organizations to attempt to find the most cost-effective form of reaching out to the public. Knowing that door to door canvassing is the most effective form of mobilization, political leaders are likely to target higher density neighborhoods so that more homes can be targeted in a shorter amount of time. In car-oriented, single-use neighborhoods, homes are further apart from each other which likely increases the costs associated with door to door

canvassing. Future research is necessary to provide empirical support for this supposition.

Collectively, the empirical chapters within this dissertation project add to the growing body of literature that finds that place matters. The way we plan, build, and maintain our cities and city neighborhoods has broad affects on residents. As noted, it is important to understand these issues as an area of public policy. The physical design, the availability and accessibility of amenities, and maintenance of cities and city neighborhoods is partially, yet significantly, determined by public policy decisions (Lewis, 1996; Cervero, 1998; Levy, 2000; Baxandall & Ewen, 2000; Frumkin, Frank, & Jackson, 2004; Williamson, et. al., 2006). *The decisions of policy makers and planners, therefore, have the ability to shape how engaged people are in their local government, how connected they feel to each other and to the community itself, and perhaps most importantly, how happy they are!* This dissertation project demonstrates that as with many other policy domains, peoples' lives are extensively affected by the decisions that are made.

This dissertation, along with other research projects that focus on the built environment of cities and land-use and transportation planning, suggests that policy makers should think very seriously about the implications of their decisions. Although it is pointed out that the decisions that are made may be encompassed within a dominant policy subsystem, research such as this can serve as a call for interests to attempt to create a more competitive policy making arena. Subsystems that are more competitive are of course found to be a fulcrum for calling decisions into question and can lead to broad policy changes when they may be appropriate (Thurber, 1991;

Worsham, 1997). While more work needs to be done to better understand planning and the built environment as public policy, research projects such may make future research an important endeavor and can be a first step to determining whether the practices of planners should be reviewed.

This body of research is in its relative infancy. Along with the calls for future research addressed above, there are several other avenues that future scholarship can address. One is to examine other effects of variations of the built environment. The two data sets presented in this project afford opportunities to examine factors such as self-perceived health and public trust. More can also be done with political participation. Chapter 4 uses a political participation index, which is not uncommon in the political behavior literature. However, does the built environment affect some acts differently than others? Future research can and should examine this question.

Another avenue of future research is in regards to the measurement of the built environment. To date, no consensus exists on the appropriate measurement for neighborhood types. This dissertation project uses two types. In chapters 2 and 3, a series of survey questions are used to determine if an individual lives in a mixed-use, pedestrian-oriented neighborhood. Chapter 4 uses a walkability index score based upon how many different mixed-use amenities a resident can walk to from their place of residence without too much trouble. It is not clear whether some measurements are more reliable and valid than others. A future research project should consider comparing the value of these, along with other, measurements of the built environment.

Future research should also further explore the relationship between the built environment and public policy. This dissertation project presented three federal policies that have influenced the built environment in the United States. It also applies policy subsystem literature to the way the cities and city neighborhoods are designed. No known attempts have been made to model the relationship between policy making and built environment outcomes. Are there systematic factors, on the public policy level, that allow some cities to remain largely pedestrian-oriented and mixed-use rather than changing to a more car-dependent and single-use built environment? Future research should address this question.

Lastly, future research will be needed to test the findings presented in this dissertation. Using different types of measurements in different locations will determine the generalizability of the findings presented here. The built environment is found to affect happiness, social connections, civic pride, satisfaction with the city as a place to live, and political participation in this project. However, the findings only apply to the samples from which the models were constructed. Future research should consider replicating the work presented in this dissertation to gauge how robust these findings may be.

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