WASHINGTON APA'S GAME CHANGING INITIATIVE
SOCIAL CAPITAL WORKING GROUP
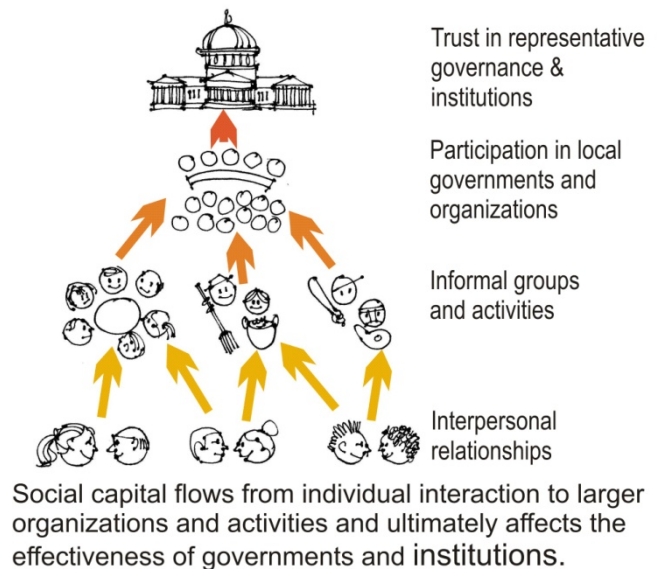
BUILDING SOCIAL CAPITAL THROUGH URBAN DESIGN AND PLANNING ACTIVITIES

INTRODUCTION

The concept of Social Capital

In his book, *Bowling Alone*, *The Collapse and Revival of American Community*, Robert Putnam argues convincingly that effective democratic governance depends on "social capital" - the connections among individuals and the social networks and the reciprocity and trustworthiness that arise from them. Peoples' engagement as individuals and in small groups, organizations and activities as well as other forms of social interaction translate into participation in local government and ultimately into trust in larger governmental and institutional organizations. Putnam notes that indices of social capital have fallen dramatically since the 1950s, and the recent polarization of American politics certainly adds credence to his ideas. If Putnam and others are right, and if we are to work toward more effective governance, we need to increase the nation's level of social capital, which has fallen dramatically since mid-20th century.

Trust in representative governance & institutions

Participation in local governments and organizations

Informal groups and activities

Interpersonal relationships

Social capital flows from individual interaction to larger organizations and activities and ultimately affects the effectiveness of governments and institutions.

See *Bowling Alone* by Robert Putnam

Because social capital is largely generated at the individual, local and community levels, (even in these days of social media), planners working at the community, municipal and regional levels can play a big role in fostering the social capital that will facilitate more effective and inclusive governance.

Putnam goes on to identify metrics for social capital and note that on a state by state basis, those states with higher social capital indices also tend to have healthier, higher educated populations that enjoy greater economic prosperity, more democratic governance and children's welfare. His prescription for improving the country's social capital includes better

public transportation and zoning laws, and efforts to encourage voting and political involvement.

Importance for Building Equitable Communities

As facilitators of inclusive public decision-making processes, it is planners' job to ensure that all have an equal opportunity for meaningful input. However, it is often difficult to engage certain populations and constituencies for a number of reasons.

The challenge is to increase opportunities for access and leadership for all people. The opportunity is to build greater social capital among all people and thus increase trust in and support for governance and institutions at all levels. As inequity increases within US society and government becomes more divisive, this interconnected challenge-opportunity becomes more critical.

Importance for Economic development

The Federal Reserve Bank of Boston conducted a Study in 2009 to identify the keys to success for economically "resurgent" communities. The study found that consistent and long term collaboration among leaders, institutions and groups was the key factor helping some towns to thrive while others declined. That is, unified collective effort was more important than geographic and demographic advantages, tourism resources, and high-tech activities.

Neil Pierce and David Brooks have both recently written articles noting that local leadership is likely the most effective antidote we have to the quagmire in DC.

The Role of Urban Design in Fostering Social Capital

If Putnam is correct that our basic level of positive social interaction "trickles up" to greater group involvement and ultimately to more effective institutional relationships, then urban design can play an important role in fostering the formation and flow of social capital. Social scientists and urban designers have established that the characteristics of the built and natural environment can have a substantial effect on social interaction. Jane Jacobs' influential *Death and Life of the American City* described the ways city form affected neighborhood social activities and the quality of life in general.   In *City: Rediscovering the Center*, William Whyte demonstrated that the shape, form and qualities of streets and urban spaces affected how

people used them. Kevin Lynch's book, *Site Planning* translated those and other perceptions into clear and useful design Guidance. Claire Cooper Marcus and Carolyn Francis added to this knowledge in *People Places*, which examined more specifically the design qualities of successful urban spaces. Jan Gehl's *Life between Buildings* further explored the social qualities of the public realm. In their eminently useful and practical book, *Housing as if People Mattered*, Cooper Marcus and Wendy Sarkissian applied similar techniques in identifying key design solutions to make low rise multi-family housing projects more conducive to social interaction, as well as improving security, privacy and resident satisfaction.

More recently journalist Charles Montgomery has revisited the relationship between urban design and social interaction in his book *Happy City, Transforming Our Lives through Urban Design*. While the book does not add much in terms of new technical information, it does introduce the general public to the topic's importance and frames the argument for better urban design in terms of human happiness, which is so dependent upon positive social interactions and a sense of belonging. The work of the Social Capital Group built on Montgomery's writing and social-environmental "laboratory" work.

SOCIAL CAPITAL

Evaluating correlations between happiness, civic engagement, and the built environment

Community, Environment, and Planning Student Report

An Huynh, Janice Wang, Jenna McDevitt, Tyler Licata, and Anna Michel

December 2014

Community, Environment, and Planning Student Report

This report is a summary of work conducted by students in the University of Washington Community, Environment and Planning (CEP) program. The project was aimed at:

- Developing a working definition of social capital in the planning context, and
- Exploring ways social capital relates to life satisfaction, commute time, transportation mode, and community involvement levels in various neighborhoods in Seattle.

The students conducted a literature research regarding social capital, met with Futurewise project lead to determine student activities, supported Futurewise's preliminary research in preparation for the October 24th, 2014 Urban Design Lab, assisted in the Lab, and conducted a follow-up survey to further explore the subject. The following is an excerpt from the report completed by five CEP students over the course of Fall Quarter, 2014.

SOCIAL CAPITAL

Evaluating correlations between happiness, civic engagement, and the built environment

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To explore the ideas and factors of planning that contribute to and/or detract from social capital, we collaborated with John Owen, a representative from the Washington Chapter of the American Planning Association, and Futurewise to work as experiment leaders at the Happy Seattle Urban Design lab on October 24th, 2014. The purpose of this lab was to test several main concepts surrounding social capital, such as altruism, street design, density and comfort, and trust in strangers. The second component of our work, inspired by events of the Happy Seattle Urban Design Lab, consisted of us conducting our own follow-up survey and research to test the correlations between life satisfaction, commute time, transportation mode, and community involvement. Our results found that there was a statistically significant correlation between commute time and self-reported life satisfaction, transportation modes and self-reported life satisfaction, but no strong correlations between community involvement and self-reported life satisfaction. These findings lead to implications for the development happening in Seattle and the discussions around supporting or cutting public transportation.

Following are the three hypotheses we developed out of a review of current literature, our methodology for testing these hypotheses, our results, and a discussion of these results and the implications they hold for planning for social capital in Seattle.

Hypothesis 1) We will find a positive correlation between overall happiness and the number of community groups a person belongs to.

We wanted to gauge not only how involved Seattle residents are with their community, but also if being involved had any apparent benefit to their self-reported happiness.

Our second source of inspiration for hypothesis two and three came from the following quote: "Stutzer and Frey found that a person with a one-hour commute has to earn 40% more money to be as satisfied with life as someone who walks to the office" (Montgomery, 83).

Hypothesis 2) Longer commute times will negatively affect individual's overall happiness.

Hypothesis 3) Individuals who walk and bike between work and home will report a higher average happiness level than individuals that commute to work via car or bus.

Methodology

      With all of the new infrastructure for bike lanes, newly introduced bike share programs, and metro cuts, we felt that this was a very relevant issue to investigate further. In order to test our hypotheses, we developed a seven question survey which was printed out on a half sheet of paper.

The questions were as follows:

1. What is your overall life satisfaction on a scale of 1 to 10?
2. Which neighborhood do you work in?
3. Which neighborhood do you live in?
4. How satisfied are you with the neighborhood you live in? (1 - 10)
5. How do you get to work?
6. How long is your travel time on average?
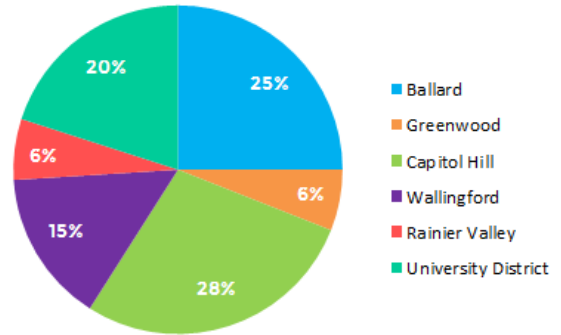7. Are you a part of any groups outside of work or school?

See Appendix A for the survey and disclaimer that were given out.

      Our survey was conducted at six QFCs around Seattle: Ballard, Capitol Hill, Greenwood, Rainier Beach, Wallingford, and University Village. We chose to conduct our surveys at QFCs in an attempt to be objective, since groceries are something that people of every income level and status need. QFC is a popular mid-level grocery store and when deciding the methodology for this experiment, we decided that a QFC would draw a larger and broader audience than an upscale market such as Whole Foods or Metropolitan Market would. Our surveys were given out on a half sheet of paper as people entered or exited the QFCs between the times of 5:00pm and 7:00pm. All of the surveys were conducted Monday-Thursday on the week of November 10th, 2014. We collected over 100 surveys from these six locations. Once the surveys were collected over the course of a week, we began calculating connections between the data. We found averages of our data then made graphs to illustrate our data with best fit lines to show how the different variables affected one another. To test the validity of our data, we then performed a chi squared statistical analysis to ensure that the two variables were indeed statistically significant.

Results

We collected a total of 106 surveys over the course of one week at the six predetermined QFC locations. Out of that total, 25% of the surveys were from Ballard, 6% Greenwood, 28% Capitol Hill, 15% Wallingford, 6% Rainier, and 20% University District. Overall, the average happiness for the survey population came in at a 7.7, and overall satisfaction with an individual's neighborhood is 7.8.
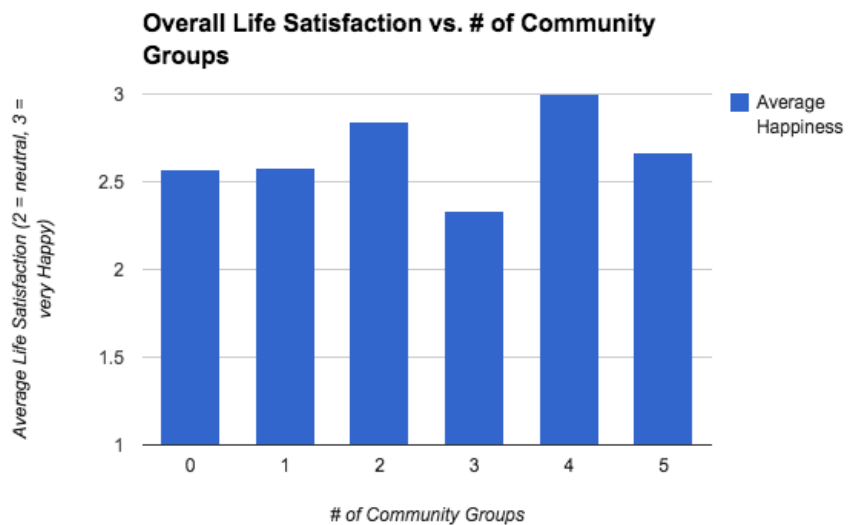

We looked at a total of 8 correlations which included overall life satisfaction/neighborhood of survey location, overall life satisfaction/overall satisfaction with neighborhood of residence, overall life satisfaction/number of community groups, overall life satisfaction/commute time, overall life satisfaction/transportation mode, neighborhood of survey location/overall satisfaction with neighborhood of residence, neighborhood of survey location/number of community groups, and commute time/number of community groups. The three correlations highlighted in green in the table below correspond to our three hypotheses, respectively. Besides our three hypotheses, we also wanted to look at five other potential relationships, which are the ones not highlighted in green.

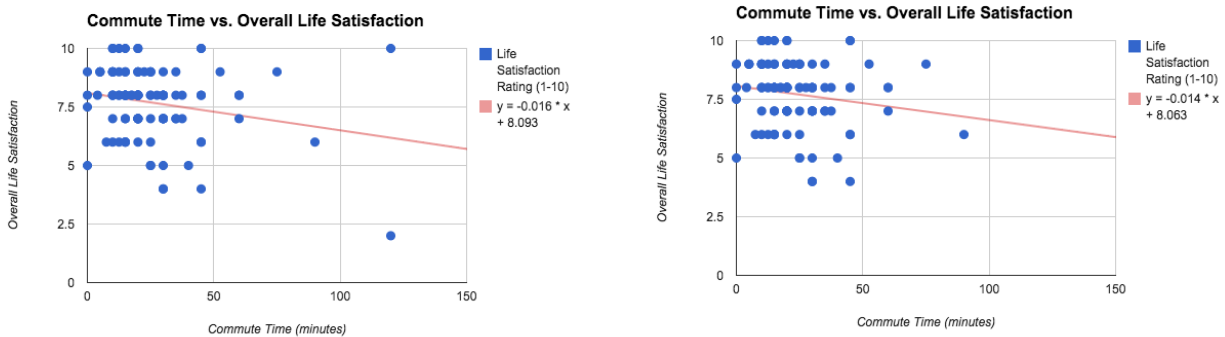| Variable 1	Variable 2
Overall life satisfaction	Neighborhood of survey location
Overall life satisfaction	Overall satisfaction with neighborhood of residence
(1) *Overall life satisfaction*	*# of community groups*
(2) *Overall life satisfaction*	*Commute time*
(3) *Overall life satisfaction*	*Transportation mode*
Neighborhood of survey location	Overall satisfaction with neighborhood of residence
Neighborhood of survey location	# of community groups
Commute time	# of community groups

Hypothesis 1

To reiterate, our first hypothesis predicted that we will find a positive correlation between overall happiness and the number of community groups a person belongs to. Our data is showing that there is a slightly positive correlation between the number of community groups a person is involved in and their overall life satisfaction. In other words, the more community groups a person is involved in, regardless of the type of group, the more likely they are to report a higher overall life satisfaction or happiness. The y-axis on this graph is grouping our happiness levels of 1 to 10 into 3 broader categories of low, neutral, and high overall life satisfaction. Group one includes happiness ratings of 1-3, group two includes ratings from 4-7, and group 3 includes happiness levels of 8-10. After performing a chi squared statistical analysis, we were able to determine that with 8 degrees of freedom, our chi-squared statistic was 3.96. This means that we are unable to reject our null hypothesis and conclude that, at least from these results, that the number of community groups does not have a significant effect on a person's overall life satisfaction.

Overall Life Satisfaction vs. # of Community Groups

Average Life Satisfaction (2 = neutral, 3 = very Happy)

■ Average Happiness
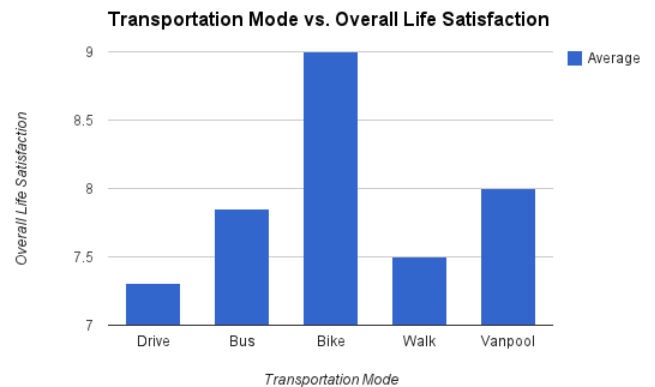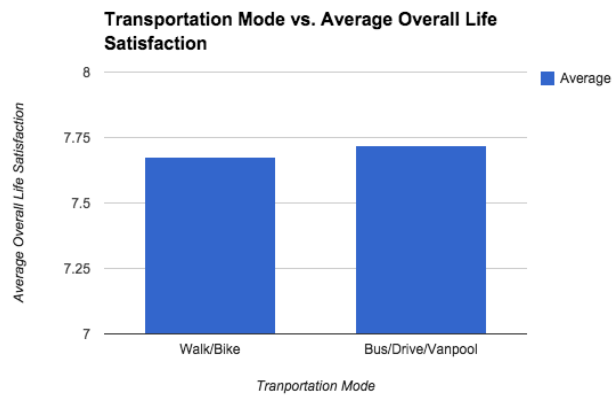
# of Community Groups

Hypothesis 2

Our second hypothesis stated that longer commute times will negatively impact an individual's overall happiness. From the data that has been graphed from our survey, most of the points are aggregating to the upper left corner of the graph. This pattern is demonstrating a couple of points. Most of the people we surveyed has less than a 50-minute commute time and happiness levels above a 5. However, there was still a negative correlation between commute time and happiness, meaning that people who reported longer commute times were also reporting lower happiness numbers. There were two clear outliers in our results corresponding to the two points with a 120-minute commute time. While one person reported a very low happiness rating of 2, a different person with the same commute time gave us the highest possible happiness number of 10. Recognizing that these two outliers might affect our trend line, we also created a second set of results that does not include these two points. The second scatter plot is shown below.

The two trend lines after linear regression actually show very similar best fit lines. They both have just slightly differently y-intercepts and slopes. However, after performing a chi-squared analysis on both data sets (one with and one without outliers included), we were able to determine that our null hypothesis was only supported when outliers were included. When outliers were included in our statistical analysis, we determined that with 4 degrees of freedom, our chi squared statistic was 9.95, a result that supports our hypothesis that longer commute times affect happiness. However, when outliers were excluded from the data set, we found that with 2 degrees of freedom, we had a chi-squared statistic of 3.16, which would demonstrate that commute time does not have a statistically relevant effect on a person's overall happiness.

Hypothesis 3

Our third and final hypothesis stated that we expect to find individuals who walk and bike between work and home will report a higher average happiness level than individuals that commute to work via car or bus. Looking at the averages between transportation modes, bikers reported the highest overall life satisfaction levels at an average of 9 while drivers had an average of 7.31. However, as we examine the other averages, bus commuters actually reported a higher average than walkers at 7.85 and 7.5, respectively. This observation is in opposition to our hypothesis, so in order to have our graph and results match the frame of our hypothesis, we combined the averages of walkers/bikers and drivers/bus riders/vanpoolers. We decided to include vanpoolers in this group because it is another form of community transit. From combining these averages, the overall life satisfaction levels between the two groups are difficult to differentiate, and the latter group with drivers/bus riders/vanpoolers had a greater average than the walkers/bikers group. While we were unable to support our hypothesis that walkers/bikers had an overall life satisfaction higher than drivers/bus riders/vanpoolers, we were able to demonstrate that commute style does have an effect on individuals overall life satisfaction.

By performing a chi-squared analysis, we could demonstrate that with a chi-squared statistic of 32.44 and 8 degrees of freedom, we could reject our null hypothesis that commute style has no effect on life satisfaction. We can therefore say that our data supports that commute style affects reported life satisfaction.

Limitations of Study

There are several factors that could have affected our survey results in one way or another. The following reflections elaborate on four key issues we have identified with our methods which include grading scale subjectivity, unclear and mixed survey responses, disproportionate survey responses for each location, and variability in survey conditions. We highly recommend that these four issues be considered before conducting further research on this subject.

Grading scale subjectivity

In asking folks to rate their overall life satisfaction and satisfaction with their neighborhood of residence, we were receiving answers that were highly subjective and based on an individual's personal idea of what each of those categories meant to them. For example, two people who both give themselves a 6 in overall life satisfaction could mean very different things. One person's 6 rating is different than another person's 6. This also goes for the neighborhood rating, in that we did not have a mechanism to gauge how closely these ratings were to each other. In order received more accurate answers to these questions, one change we could make is to give more specific descriptions of what each number means. We could also make the grading scale from 1-5 or 1-3 instead of 1-10, but this step could lose us the detail that a 1-10 scale was able to provide.

Survey allowed for unclear and mixed responses

Another problem we encountered while analyzing survey data was the wide range of answers instead of just one specific answer. For example, for the question asking for commute time, many people gave a range such as 20-30 minutes. For the question asking about transportation mode, there were many responses that gave two modes like walk/bus. For the answers that had to do with minutes, we took the average of the range that was given. However, for answers like the walk/bus answer, we did not incorporate those answers into our analysis and only used answers with one definitive transportation mode. One solution to this problem is to ask clearer questions the next time the survey is conducted. Instead of just asking how people get to and from work, we can narrow their answers down by asking for their primary mode of transportation to and from work.

Unequal number of surveys collected at each location

Due to time restraints, our group was unable to get an equal number of surveys done at each QFC location. As mentioned in the results section, Ballard, Capitol Hill, and the University District contributed to about 75% of our surveys while Wallingford, Greenwood, and Rainier Valley made up the rest of the 25%. A simple way to get more survey results and get a better representation of each neighborhood would be to target the QFCs that did not get as many surveys (Wallingford, Greenwood, and Rainier Valley) and get their numbers up at least to the level that Ballard, Capitol Hill, and the University District are at now.

Variability in survey conditions (different days of the week, different weather, etc)

While our group controlled for the survey times and locations, we still encountered a variety of unexpected variability in survey conditions. Conducting the surveys on different days of the week, even though we kept it within weekdays, could have impacted how people were responding to our overall life satisfaction question, although the question was worded in a way that asked people to look at the big picture and not day-to-day. Our group also experienced different weather conditions which might have impacted how responsive people were to our questions. One way to control for this is to have surveys done at multiple times throughout the day and have this study going for a longer period of time. These changes would make sure we ask a variety of people and shoppers in all weather conditions. It would also just give us a much wider survey population and data to work with.

Recommendations for Seattle

The three hypotheses that we came up with to grade the overall level of life satisfaction in the City of Seattle provided statistical evidence that helped us identify recommendations for transportation planners, housing developers, and landscape architects to think about when designing a sustainable and happy future for Seattle. In summary - residents of Seattle report higher levels of happiness (life satisfaction) when they utilize alternative modes of transportation for their daily commute, spend less time in car traffic getting to and from their occupation, and invest their free time in a wide range of community groups and volunteer organizations. Since the average happiness rating (0 through 10) that we recorded equated to around 7.7, we can assume that Seattle residents aren't completely satisfied with their lifestyles in the rapidly expanding Puget Sound Metro area. After reading the written works of authors like Charles Montgomery and Eric Beinhocker, we've been able to identify a number of obvious causes for the moderate level of dissatisfaction that local 'Seattle-lites' are reporting. Some of these causes include: *The physical*

layout of society (ie. suburban sprawl) which has put more space between us and lowered the chance to encounter strangers and talk because we're forced to drive more due to the geographical separation of work and a drop-off in workplace socializing... (Beinhocker, 2006, pg. 438). *Mass media trends have also had an isolating effect on society because our entertainment habits have shifted from group based activities like dancing and bowling to individual activities like internet, TV, and video games...* (Beinhocker, 2006, pg. 438). Fortunately, there are a number of urban development strategies that can help mitigate the negative effects of these social paradigms that Beinhocker has presented.

1. Reserve more open space for green infrastructure in the urban streetscape to increase the amount of vegetation and space for pedestrian oriented transportation in heavily developed portions of Seattle.
    - Charles Montgomery writes in 'Happy City' that, "...cities need medium sized parks, community gardens, pocket parks, planted sidewalk strips, and living wall plantings... because nature in cities makes us happier, healthier, and friendlier which translates to people being more strongly connected with their community." (Montgomery, 2013, pg.120, 122)
2. Build mixed use infrastructure that combines urban density and personal privacy in a non-dispersed living arrangement. Not only will this encourage mass transit ridership in the Pacific Northwest and lessen the amount of single occupancy commutes on our highways, but it will also help our communities become more altruistic and friendly on a person to person basis and socially active on a holistic basis.
    - Montgomery writes on page 55 of 'Happy City' that, "People in the dispersed city have invested so heavily in private comfort that they feel insulated from the problems of the rest of the world... In comparison... People who live in walkable mixed use neighborhoods are more likely to participate in social groups and political parties."
3. Last but not least... as our urban neighborhoods in the Puget Sound Region escalate and densify - we must defend and expand shared resources like bike corridors, alleyways, pocket gardens, and community parks because these amenities are valuable social assets. These types of public amenities are valuable because they help our cities feel less chaotic and more suitable for individuals and families with crowding issues.

In conclusion, social dispersion caused by long 'everyday' commutes and suburban sprawl must be avoided because this development pattern will continue to lower the amount of 'time after work' people have to socialize with friends, care for their loved ones, and participate in their

communities - thus lowering the overall total of social capital in Seattle and the Puget Sound Region.