

Unhappy Metropolis (When American City Is Too Big)

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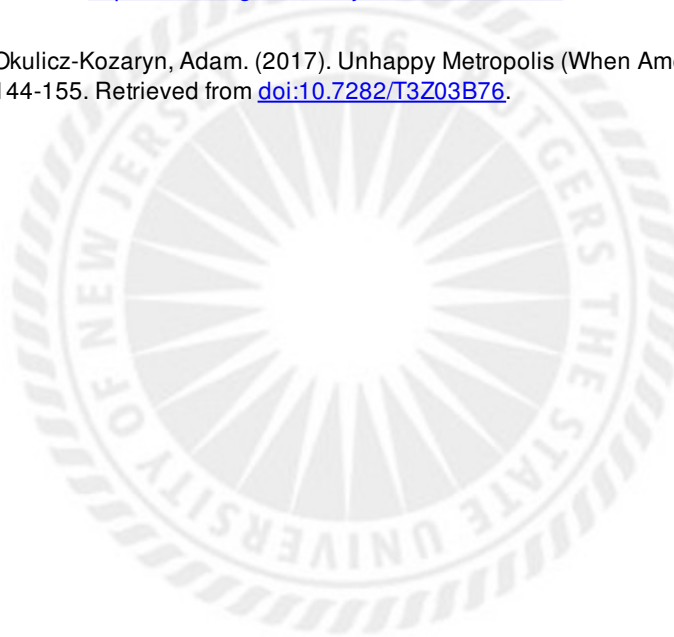
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Article begins on next page

Unhappy Metropolis (When American City Is Too Big)

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Abstract

Most scholars in urban studies and public policy/administration support city living, that is, they suggest that people are happy in cities or at least they focus on how to make people happy in cities. Planners also largely focus on making cities happy places. Economists emphasize agglomeration economies. Urbanism is popular and fashionable. The goal of this study is to challenge this common wisdom and stimulate discussion. I use the General Social Survey to calculate subjective wellbeing or happiness by size of a place to find out when a place is too big. Malaise or unhappiness increases with size of a place (with a bump around 10k people) and reaches a significant level when population exceeds several hundred thousand. Results are robust to the operationalization of an urban area, and to the elaboration of the model with multiple controls known to predict happiness. This study concerns only the US, and results should not be generalized to other countries or historical contexts. Directions for future research are discussed.

KEYWORDS: URBANISM, URBAN, RURAL, CITIES, SUBURBS, SIZE OF A PLACE, POPULATION DENSITY, HAPPINESS, LIFE SATISFACTION, SUBJECTIVE WELLBEING (SWB), GENERAL SOCIAL SURVEY

Introduction

Urban scholars, regional scientists, and planners study Quality Of Life (QOL), which is usually defined in a narrow sense as quality of transportation, housing, or some other domain. Psychologists, on the other hand, study Subjective Wellbeing (SWB),¹ which is usually

¹SWB is, roughly speaking, synonymous with happiness and life satisfaction. I will use these terms interchangeably. In laboratory settings using small samples with many measures, it is possible to differentiate between the concepts, but it is not possible in large scale surveys as used here. Happiness measurement is discussed later.

measured with surveys asking respondents about their happiness. SWB is subjective, self-reported, cognitive, and affective evaluation of one's life. SWB can be used to evaluate and direct policy and planning. Ultimately, public policy should make people happy. This idea, to make people happy through policies and planning, is not only the author's or Jeremy Bentham's idea,² but it is also advocated by leading social scientists such as Amartya Sen (Stiglitz et al. 2009). There is a need to study happiness simply because it is happiness and not income or consumption that is the ultimate goal of broadly understood development (e.g., Stiglitz et al. 2009, Diener 2012, Easterlin 2013). This study draws on sociology, psychology, and geography to investigate the link between size of a place and happiness.

Claude S Fischer, an urban sociologist, asked in 1973, "Does the likelihood of an individual expressing malaise increase with an increase in the urbanism of his place of residence (indexed by size of community)?" For over 40 years nobody has answered this question, that is, no study has investigated the effect of "size of community" (number of people) on happiness. There were only indirect and imprecise answers (Fischer 1973, 1982, Veenhoven 1994), often limited to specific groups of people or geographic areas (Amato and Zuo 1992, Adams 1992, Adams and Serpe 2000, Balducci and Checchi 2009, Evans 2009, Lu et al. 2015).³ No study has operationalized urbanism with population size as in Fischer's question. Likewise, a recent review of literature about happiness and cities (Ballas 2013) does not provide the answer. I have also recently started answering Fischer's question indirectly (Berry and Okulicz-Kozaryn 2011), but this study is more comprehensive: it uses multiple and elaborated measures of size of a place, explores how exactly happiness declines when size of a place increases, and

²Jeremy Bentham (1748-1832), a British philosopher, is a founder of moral utilitarianism—an idea that what makes us happy is the right thing to do. It follows, according to this doctrine, that the role of the public policy should be to maximize the happiness, that is, governments should produce the greatest happiness for the greatest number.

³Researchers either did not measure happiness, but related concepts (health, income, etc); or they used small-area or unrepresentative samples; or crude measures of urbanicity, either binary or few categories, e.g., cities, towns, and smaller areas.

tests directly when a place is too big. The goal of this study is to call attention to the finding that cities are least happy places, challenge contemporary urbanism and stimulate further discussion. Results suggest that people are least happy in cities bigger than hundreds of thousands of people, which may appear as a very imprecise answer. This is an approximate range that is estimated from different regression models, and I do not attempt to narrow it down. I want to be able to provide a statement about relative happiness across places of different size in the US in general. American cities are, of course, very different in about everything, including size at which unhappiness develops.

The Concept of Happiness

For simplicity, the terms happiness, life satisfaction, and Subjective Wellbeing (SWB) are used interchangeably. Ed Diener defined SWB as “both cognitive judgments of one’s life satisfaction in addition to affective evaluations of mood and emotions” (Diener and Lucas 1999, p. 213). This is almost the same as the definition by Ruut Veenhoven (2008, p. 2), another key happiness scholar: “overall judgment of life that draws on two sources of information: cognitive comparison with standards of the good life (contentment) and affective information from how one feels most of the time (hedonic level of affect).” Some scholars use ‘life satisfaction’ to refer to cognition and ‘happiness’ to refer to affect (e.g., Dorahy et al. 1998). This dichotomy is not pursued here, because there is only one survey item, which likely captures mostly life satisfaction but also happiness to some degree. Therefore the SWB definition by Diener and Lucas (1999) and Veenhoven (2008) seems most appropriate, and again, SWB is used interchangeably with “happiness.”

The happiness measure, even though self-reported and subjective, is reliable (precision varies), valid (Di Tella and MacCulloch 2006, Myers 2000), and correlated with similar ob-

jective measures of wellbeing such as brain waves (Layard 2005). Unhappiness strongly correlates with suicide incidence and mental health problems (Bray and Gunnell 2006). Finally, to avoid confusion, this study investigates general/overall happiness, not a domain-specific happiness such as neighborhood or community satisfaction.

Happiness, as any measure, has some limitations. Much of happiness is hereditary or due to genes (Lykken and Tellegen 1996). We are on so called “hedonic treadmill”—we adapt or get used to both fortune and misfortune, even very major events such as winning millions in a lottery or losing limbs in an accident (Brickman et al. 1978). Happiness is affected by various comparisons (Michalos 1985)—whatever happens to other people (and whatever happened to ourselves in the past) affect our current happiness. These issues, however, are not critical. Recently, Diener (2009) has provided a good discussion of why potential problems with happiness are not serious enough to make it unusable for interventions, planning, and public policy.

Urbanism: Happy or Unhappy?

Social scientists say or imply that happiness has its place in big cities. While there is no evidence to support it, the proposition that people are happy in the city has been assumed by many to be a self-evident truth, an axiom. Notable enthusiasts of happy city living are Jane Jacobs in her classic “The Death and Life of Great American Cities” ([1961] 1993), and more recently Ed Glaeser in “Triumph of the City: How Our Greatest Invention Makes Us Richer, Smarter, Greener, Healthier, and Happier” (2011):

There is a myth that even if cities enhance prosperity, they will make people miserable. But people report being happier in those countries that are more urban. In those countries where more than half of the population is urban, 30

percent of people say they are very happy and 17 percent say they are not very or not at all happy. [...] Across countries, reported life satisfaction rises with the share of the population that lives in cities, even when controlling for the countries' income and education.

This is ecological fallacy. People are happier in more urbanized countries than in less urbanized countries, but it does not mean that people are happier in cities than in smaller areas. More urbanized countries are simply richer, healthier, better governed, etc, than less urbanized countries. This is one of the most agreed upon findings in happiness literature: In a cross-section of countries, people are happier in more developed areas (e.g., Okulicz-Kozaryn 2011). Urbanization leads to economic growth, but economic growth does not lead to much happiness over time, especially in developed countries (Easterlin 2013). I have discussed these issues in depth elsewhere (Okulicz-Kozaryn 2015). Glaeser (2011) continues:

Cities and urbanization are not only associated with greater material prosperity. In poorer countries, people in cities also say that they are happier. Throughout a sample of twenty-five poorer countries, where per capita GDP levels are below \$10,000, where I had access to self-reported happiness surveys for urban and non-urban populations, I found that the share of urban people saying that they were very happy was higher in eighteen countries and lower in seven. The share of people saying that they were not at all happy was higher in the non-urban areas in sixteen countries and lower in nine.

This statement is either due to unhappy sampling or cherry picking. Indeed, people are happier in cities in developing countries as shown by Berry and Okulicz-Kozaryn (2009), but in rich countries, it is the other way round—the bigger the area, the lower the happiness (Okulicz-Kozaryn 2015). The fact that people are happy in cities in poor countries is

arguably not due to cities' "greatness." It may be simply that life outside of the city in a poor country is unbearable and lacking the necessities, such as food, shelter, sanitation, and transportation. Quality of life or so called "livability" differs greatly between urban and rural areas in developing countries. For instance, urbanites enjoyed three times higher income and consumption than rural dwellers in China in 2000 (Knight et al. 2006). Simply, the urban happiness in developing countries is rather due to unfavorable conditions outside of cities, not due to virtues of cities. Cities have few virtues, but many vices (Wirth 1938, Park 1915).

In addition to the positive side, the affirmation of city life, there is a negative side, a condemnation of suburban life—contemporary scholars also build their argument in favor of city living by arguing against suburban living. There are many studies dedicated to condemnation of suburban sprawl (Kay 1997, Duany et al. 2001, Dreier et al. 2005, Kunstler 2012, Ewing 1997, Frumkin 2002, Ewing et al. 2003). There are problems associated with sprawl, but scholars usually overlook that people are least happy in cities. There is a clear discord—residents prefer (Fuguitt and Brown 1990, Fuguitt and Zuiches 1975) and are happier in small areas, but academics, policy makers, and planners promote cities as "better" places. In addition, enthusiasts of city living, proponents and opponents of suburban living miss the point that people are happiest neither in cities nor in suburbs, but in small towns and villages.

Of course, the negative side of the city living has been noticed long time ago—it was succinctly summarized by Wirth (1938) over 70 years ago. According to Campbell et al. (1976), the first major quantitative study finding happiness to be lower in cities was Gurin et al. (1960). Many studies followed, notably by Claude S Fischer (1982, 1976, 1975, 1973, 1972). The literature has argued many city problems. Cities exemplify a mechanical society without much community (Tönnies [1887] 2002), they overstimulate (Simmel 1903) and are

unhealthy to the brain (Lederbogen et al. 2011). Cities intensify vice, crime, and conspicuous consumption; labor specialization and industrialization that accompany urbanization kill spontaneity and joy (Park 1915, Park et al. [1925] 1984, Veblen 2005a,b, Wirth 1938). Cities are full of pollution, dirt, noise, crowding, poverty, beggary, and monotony of the buildings (senseless chunks) (Wirth 1938, White and White 1977). In short, we know that cities are in many ways incompatible with human flourishing and wellbeing. This study is the first, however, to show precisely how subjective well being declines with size of a place.

Sometime ago, there was a discussion about an optimal size for a place—the idea being that it is efficient to have many people living together, but beyond some point, further concentration does not make sense. As a place grows, so do benefits and they grow faster than costs. At some point, however, costs start to grow faster and there is a point when costs outweigh benefits. This line of research (e.g., Singell 1974, Elgin 1975) discontinued a few decades ago. For more recent review see Capello and Camagni (2000), which concluded that it is difficult to calculate an optimal city size because every city is different. This study agrees with such perspective, and hence, a wide range offered in conclusion: city is too big when it exceeds hundreds of thousands people. A dataset containing both happiness and detailed size of a place variables is needed to investigate the relationship.

Data

This study uses 1972-2012 US General Social Survey (GSS) from <http://www3.norc.org/gss+website>. For definitions of size of a place and happiness, frequency figures and coding of all variables see appendix A. The outcome of interest (dependent variable) is happiness. The main explanatory (independent) variable is size of a place. Size of a place is defined in three ways to show that the results are robust to the definition. First, it is deciles of population

size (SIZE). Deciles are used to investigate if there are any nonlinear effects on happiness. Two other variables are used under their original GSS names: XNORCSIZ and SRCBELT. Both variables categorize places into metropolitan areas, big cities, suburbs, and unincorporated areas. The advantage of SIZE is that it allows to calculate a happiness gradient by exact size of settlement. XNORCSIZ and SRCBELT take into account the fact that populations cluster at different densities, e.g., suburbs are less dense than cities. GSS does not provide density variable.

The choice of control variables for regressions is based on the literature (see extended discussion in the appendices). Those variables are controlled for, because they predict happiness as shown in the literature, but they are not of direct interest to this study and hence they are only discussed briefly. What makes people happy? Young and old people are happy (e.g., Sanfey and Teksoz 2005)—large cities may attract the young and repel the old. Income boosts happiness and unemployment depresses it (e.g., Di Tella et al. 2001b,a, Di Tella and MacCulloch 2006). Being married boosts happiness (e.g., Myers 2000, Diener and Seligman 2004). Blacks are less happy than whites (e.g., Berry and Okulich-Kozaryn 2009, 2011), and they are traditionally concentrated in cities (Jargowsky 1997). Cities are predominantly Democrat (Hanson 2015), and Democrats are less healthy (Subramanian and Perkins 2009) and less happy (Jost et al. 2009, Napier and Jost 2008, Jost et al. 2003). To better account for ideology and political values, liberalism is also controlled for. There are a few other important variables, such as health and social capital. They are missing for many respondents in GSS, and their discussion is postponed to appendix B, where robustness checks are covered.

Results and Discussion

This empirical section explores how happiness declines when place becomes bigger, and it attempts to find when a city is too large. There is likely to be a point at which advantages of size are overcome by costs. Figure 1 shows average happiness by categories of three size variables. Panel (a) shows that there is a happiness gradient by size of the settlement. As Fischer (1973) suggested, it is clearly the biggest cities that are much less happy than all smaller places. In other words, the largest decline in happiness is observed for the largest cities. The gradient is smooth (monotonic) except a bump at 3rd decile. Panel (b) shows the same pattern: the largest cities ($> 250k$) are least happy, and there is a small happiness gradient for other areas, except a bump at 2.5-50k. Sizes on y axis are not necessarily ordered in ascending order and unincorporated areas (both medium and large) are quite happy. Panel (c) confirms the pattern using yet another definition of size: the 12 largest MSA (Metropolitan Statistical Areas), are least happy, followed by the largest 13-100 MSA and there is less difference in happiness among smaller areas. These figures show that unhappiness intensifies at hundreds of thousands of people. There are only about 60 cities in the US with a population larger than 300 thousand. These unhappy cities are large, much larger than census definition of an urban area (2.5 thousand), and larger than a central place (50 thousand). A person does not have to give up city living to be happy, she just needs to avoid the biggest cities. There are usually only one or two such cities per state.

Fischer (1973) was correct by suggesting that at some point the city may be too big. The biggest cities are clearly the least happy, and there is less difference among smaller areas, although the happiness gradient persists. In general, the smaller the place, the happier the people. The patterns from the above figures hold when controlling for other relevant predic-

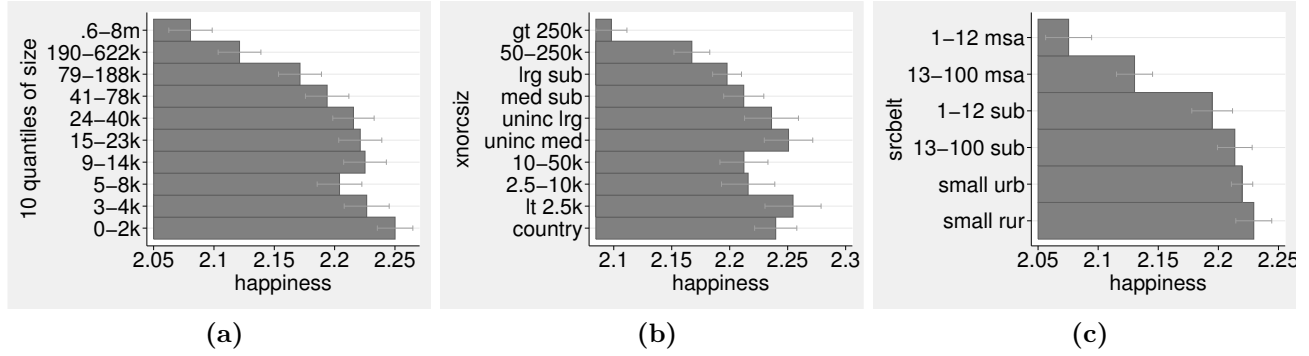


Figure 1: Average happiness by categories of size variables. 95% confidence intervals shown.

tors of happiness. Figures 2, 3, and 4 show predicted probabilities for happiness categories.⁴ Apart from an interesting dip in happiness at around 2.5-10 thousand people (figures 2 and 3), the happiness gradient persists. Perhaps, such places already strip residents of their contact with nature that is plentiful in villages and open country. On the other hand, they are not big enough to provide residents with basic city amenities.

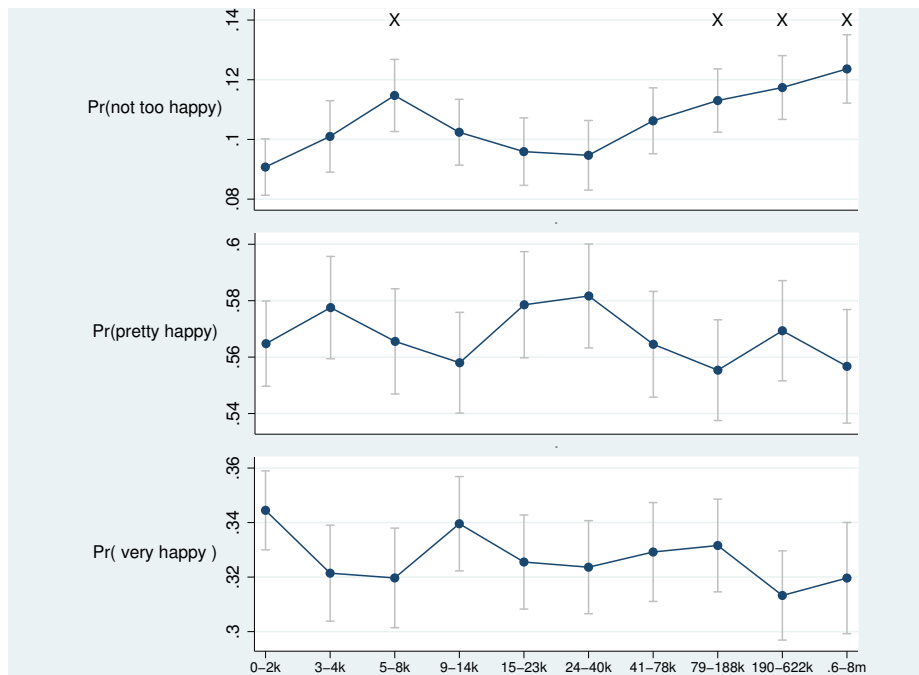


Figure 2: Predicted happiness probabilities by deciles of city size. X denotes a significant (.05 level) reverse Helmert contrast. Appendix B provides details.

⁴ The corresponding regressions are in appendix B in columns marked a1. The subsequent columns are the robustness checks using more covariates.

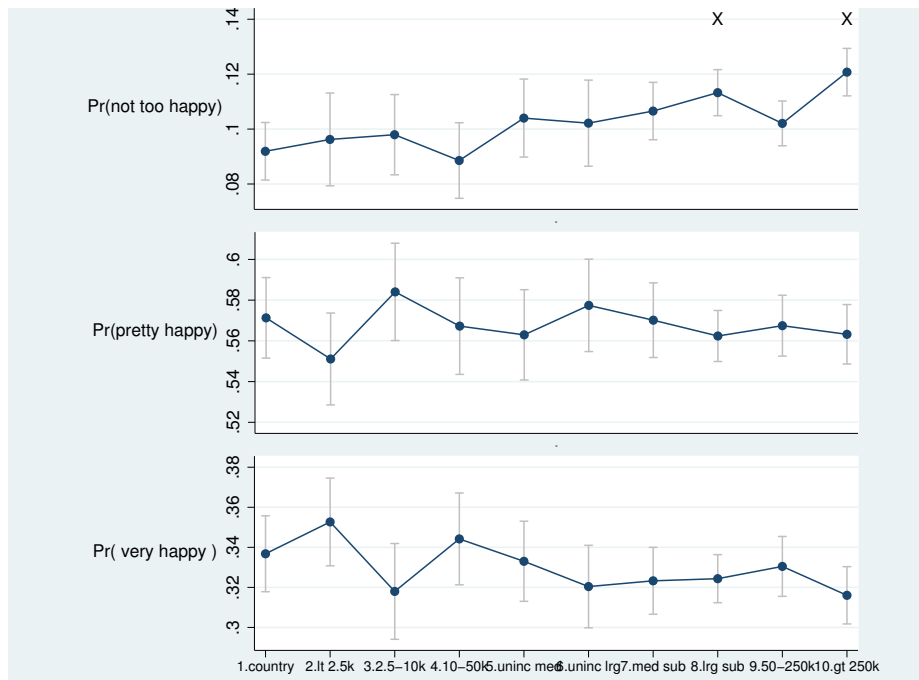


Figure 3: Predicted happiness probabilities by XNORCSIZ. X denotes a significant (.05 level) reverse Helmert contrast. Appendix B provides details.

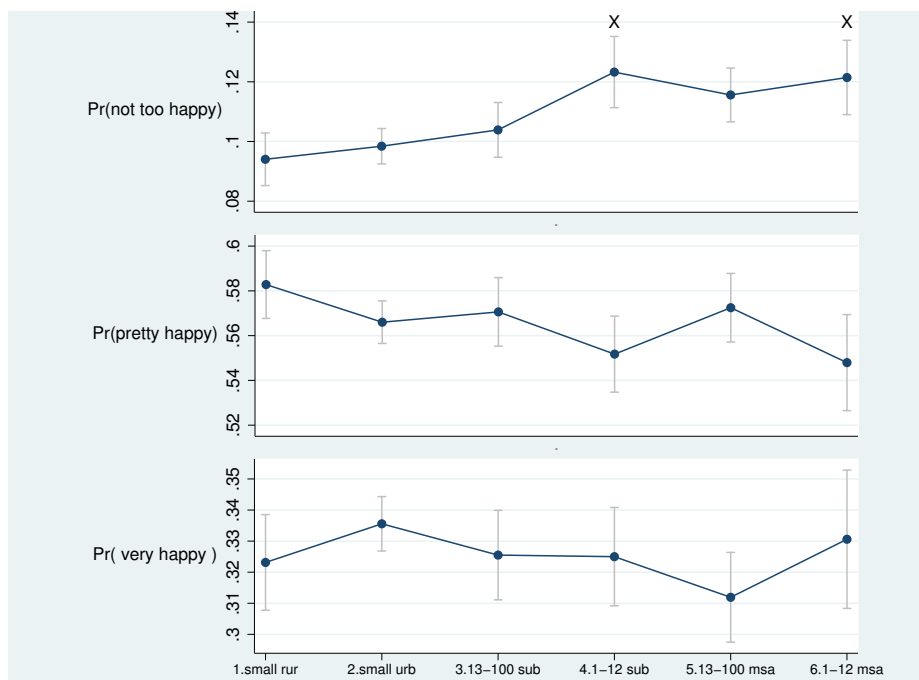


Figure 4: Predicted happiness probabilities by SRCBELT. X denotes a significant (.05 level) reverse Helmert contrast. Appendix B provides details.

Importantly, it is only the largest places, where hundreds of thousands of people live, that

are significantly less happy than smaller places.⁵ Places with a significant reverse Helmert contrasts are denoted with “X” in figures above: they are significantly less happy than all smaller places on average—for details see appendix B. While the differences across categories are not very large, even a finding of no effect would be worth reporting. Again, for some reason, it is fashionable⁶ in social science to imply that people are happier in the cities than elsewhere (e.g., Jacobs [1961] 1993, Glaeser 2011).

Conclusion

What is the message of this study? The big cities are too big: probability of being unhappy increases significantly when city size exceeds hundreds of thousands of people. This is close to estimate by Chen et al. (2015) for China. In China, people become less happy in places larger than 500 thousand (Chinese are happiest in places of 200-500 thousand, not in the very smallest places as in the US).

Importantly, these results counter the contemporary common wisdom in academia. Much of public policy/administration and economics assumes or argues that cities are “better” than smaller areas, but people are happiest in smallest areas despite that these places seem largely forgotten by academics, policy makers, and businesses. It is the largest cities that are considered “the best.” Savitch (2010) proposed the “4 C” measure of city greatness: Currency conveys the unique attributes of a city’s fundamental values and its ability to form, lead or dictate the temper of the times. Cosmopolitanism entails an ability to embrace international, multicultural or polyethnic features. Concentration is defined by demographic density and

⁵5-8k category in figure 2 is an exception.

⁶I am using a non-scholarly word “fashionable” on purpose, to show that a view that people are happy in cities is non-scholarly. I can speculate that public policy and public administration scholars imply that cities are happy because that is where their work is focused. Most people live in cities, and most policies are crafted for urban areas.

productive mass. Charisma is based on a magical appeal that generates mass enthusiasm, admiration or reverence. By this definition largest cities are greatest, and counterintuitively, as this study argues, these places are least happy of all.

By condemning cities, this study does not defend suburbs. On the contrary, results show that both cities and suburbs are much less happy than towns and villages. This finding needs to be stressed because residential debate is usually only about cities v suburbs. Smaller areas are forgotten. The omission of smaller places from residential debate is arguably due to the benefits of agglomeration economies and economies of scale found in metropolitan areas that make smaller places irrelevant. But this may change soon. The information and creative sectors are becoming increasingly important—jobs that are not creative or extremely complex will be automated (Brynjolfsson and McAfee 2014). Much of the creative and complex tasks are done on a computer. Thanks to the internet these tasks can be done from anywhere, including small towns and villages. Especially in rich countries, transportation networks and online communication enable people to live in smaller areas. Still, it is not entirely true that “the world is flat” (Freidman 2005). Indeed, “world is spiky” (Florida 2008)—place matters and it will matter in the foreseeable future. Yet having to live in the metropolitan area (city or suburb) or having to commute everyday to one’s workplace will probably be less necessary in the future.

Findings of this study can be used by policymakers in the spirit of Stiglitz et al. (2009), who urged policymakers to pay attention to happiness. America is (sub)urbanizing, yet people are unhappy in cities (and in suburbs) as compared to smaller areas. Tax/subsidy incentives to promote what makes people happy and healthy make sense. City living is not only unhappy but also unhealthy (Lederbogen et al. 2011).⁷ Sprawl, however, is not

⁷To be fair, while city living is more unhealthy than rural living, it is rural living that generates more pollution and uses more resources (Meyer 2013). Still, much of it is due to overconsumption—we could consume less and live in less dense areas more sustainably.

a solution. Ideally, people should live in villages, towns, and small cities as they used to for millennia, but unfortunately due to overpopulation, metropolis will stay with us for the foreseeable future. Fundamentally, results from this study are important for everyone: if you want to be happy, avoid large cities.

There are several limitations or directions for future research. First, this is an observational or correlational study, and as any such study, it cannot claim causality. Testing and in-depth discussion of the underlying causal mechanism is beyond the scope of this study. Furthermore, a true experimental design usually is not possible—one cannot assign randomly people to cities and villages. Last but not least, experimental designs typically suffer from low or non-existent external validity, and hence, they are not an absolute and obvious improvement over correlational studies (e.g., Pawson and Tilley 1997).

This study is about relative happiness in American cities, and specifically about relative happiness in big cities compared to happiness in alternative settlements. As mentioned earlier, specificity is sacrificed to gain generality. Another study could do the opposite and focus on a set of specific cities, or a specific region. That could be achieved using restricted use/geocoded version of GSS or the Behavioral Risk Factor Surveillance System. Exploring interactions of happiness predictors with city size may be an interesting topic for the future research, but it is beyond scope of this study, which focuses on elaboration of city measurement. And it would be worthwhile to explore why there is a happiness dip at around 2.5-10 thousand of people. Is it, as speculated earlier, that these places are big enough to kill the contact with nature, and not big enough to provide the city amenities? Another interesting topic would be to explore how a distance from large city affects a person. We know that Americans want to live in sparsely populated areas that are close to a major city (Fuguitt and Brown 1990, Fuguitt and Zuiches 1975). Finally, larger cities are likely to have more

social polarization: income/wealth inequality, residential segregation, and so forth. Use of geocoded data for the study of urban malaise will be an important contribution and a great topic for future research.

Appendix A: GSS survey items: size of settlement and happiness.

Dataset: General Social Surveys, 1972-2006 [Cumulative File]

Variable size : SIZE OF PLACE IN 1000S

Literal Question

Size of Place in thousands

A 4-digit number which provides actual size of place of interview (Cols. 166-169). Remember when using this code to add 3 zeros. Listed below are the frequencies for gross population categories.

Descriptive Text

This code is the population to the nearest 1,000 of the smallest civil division listed by the U.S. Census (city, town, other incorporated area over 1,000 in population, township, division, etc.) which encompasses the segment. If a segment falls into more than one locality, the following rules apply in determining the locality for which the rounded population figure is coded.

If the predominance of the listings for any segment are in one of the localities, the rounded population of that locality is coded.

If the listings are distributed equally over localities in the segment, and the localities are all cities, towns, or villages, the rounded population of the larger city or town is coded. The same is true if the localities are all rural townships or divisions.

If the listings are distributed equally over localities in the segment and the localities include a town or village and a rural township or division, the rounded population of the town or village is coded.

The source of the data is the 1970 U.S. Census population figures published in the PC (1) -A series, Tables 6 and 10. For cases from the

1980 and 1990 frames analogous tables from the 1980 and 1990 Censuses were used. See Appendix N for changes across surveys.

Variable xnorcsiz : EXPANDED N.O.R.C. SIZE CODE

Literal Question

NORC SIZE OF PLACE

PostQuestion Text

a A suburb is defined as any incorporated area or unincorporated area of 1,000+ (or listed as such in the U.S. Census PC (1)-A books) within the boundaries of an SMSA but not within the limits of a central city of the SMSA. Some SMSAs have more than one central city, e.g., Minneapolis-St. Paul. In these cases, both cities are coded as central cities.

b If such an instance were to arise, a city of 50,000 or over which is not part of an SMSA would be coded '7'.

c Unincorporated areas of over 2,499 are treated as incorporated areas of the same size. Unincorporated areas under 1,000 are not listed by the Census and are treated here as part of the next larger civil division, usually the township.

The source of the data is the 1970 U.S. Census population figures published in the PC (1) -A series, Tables 6 and 10. Practically, the codes '6' and '10' are localities not listed in Table 6 (Population of Incorporated Places and Unincorporated Places over 1,000). For the 1980 frame cases analogous tables from the 1980 Census were used.

Descriptive Text

See Appendix T, GSS Methodological Report No. 4.

Variable srcbelt : SRC BELTCODE

Literal Question

SRC (SURVEY RESEARCH CENTER, UNIVERSITY OF MICHIGAN) NEW BELT CODE

Descriptive Text

The SRC belt code is described in Appendix D: Recodes. See Appendix N for changes across surveys. See Appendix T, GSS Methodological Report No. 4.

Intent of Recode

The SRC belt code (a coding system originally devised to describe rings around a metropolitan area and to categorize places by size and type simultaneously) first appeared in an article written by Bernard Laserwitz (American Sociological Review, v. 25, no. 2, 1960), and has been used subsequently in several SRC surveys.

Its use was discontinued in 1971 because of difficulties particularly evident in the operationalization of "adjacent and outlying areas."

For this study, however, we have revised the SRC belt code for users who might find such a variable useful. The new SRC belt code utilizes "name of place" information contained in the sampling units of the NORC Field Department.

Method of Recode

This recode assigns codes to the place of interview. City characteristics were determined by reference to the rank ordering of SMSAs in the Statistical Abstract of the United States, 1972, Table 20. Suburb characteristics were determined by reference to the urbanized map in the U.S. Bureau of the Census, 1970 Census of Population, Number of Inhabitants, Series PC (1) -A. The "other urban" codes were assigned on the basis of county characteristics found in Table 10 of the 1970 Census of Population, Number of Inhabitants. For cases from the 1980, 1990, and 2000 frames analogous tables from the 1980 or 1990 Census were used.

Variable happy : GENERAL HAPPINESS

Literal Question

157. Taken all together, how would you say things are these days--would you say that you are very happy, pretty happy, or not too happy?

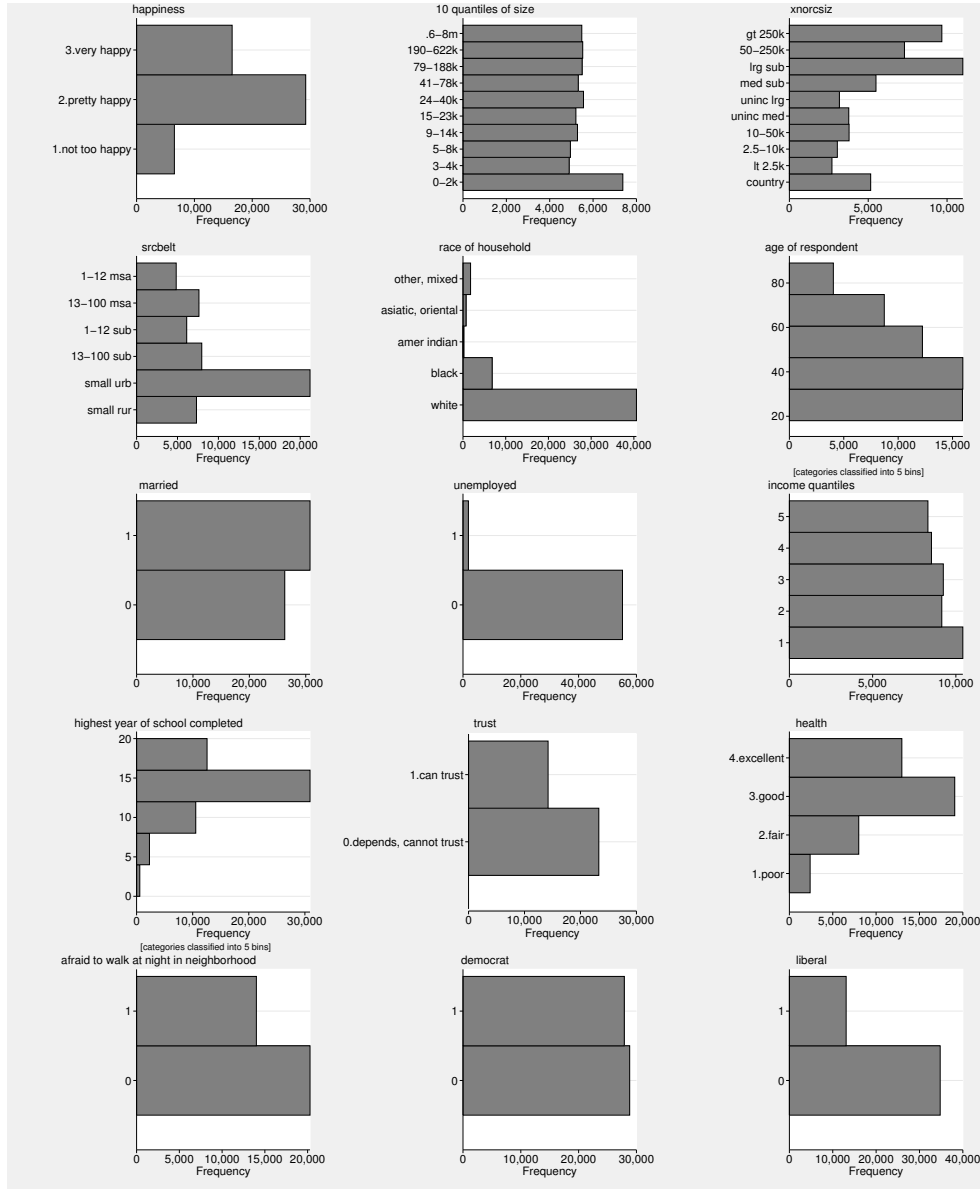


Figure 5: Variables' distribution.

Appendix B: Regression results and robustness checks.

All models are survey weighted.⁸ Base models (columns a1) include usual happiness predictors. There is an extended discussion of control variables in my earlier research on this topic (Berry and Okulicz-Kozaryn 2011, 2009). Columns a1 also include race dummies, which

⁸Stata's syntax is: `svyset vpsu [pw=wtssall], strata(vstrat) singleunit(centered)`

Table 1: Multinomial survey weighted regressions of happiness on size of a place. Base category is the middle one, “pretty happy.” Odds ratios shown. Size variables are defined in appendix A.

	a1	a2	a3	a4
not too happy				
3-4k	1.099	1.112	1.220	1.154
5-8k	1.283***	1.303***	1.314*	1.092
9-14k	1.150	1.184*	1.214	0.941
15-23k	1.038	1.067	1.115	0.932
24-40k	1.019	1.089	1.087	1.089
41-78k	1.183*	1.244**	1.199	0.923
79-188k	1.283***	1.348***	1.398**	1.282
190-622k	1.307***	1.383***	1.410**	1.119
.6-8m	1.410***	1.484***	1.418**	1.272
age of respondent	1.048***	1.050***	1.061***	1.057***
age squared	1.000***	1.000***	0.999***	0.999***
married	0.651***	0.626***	0.538***	0.481***
unemployed	2.100***	2.023***	1.999***	1.800***
income quantiles	0.758***	0.798***	0.850***	0.850***
white household	0.819**	0.849*	1.018	0.949
black household	1.169*	1.168	1.283	1.285
democrat	0.958	0.957	0.952	0.985
liberal	1.032	1.060	1.094	1.089
highest year of school completed		0.932***	0.957***	0.971
trust			0.563***	0.606***
health			0.727***	0.678***
afraid to walk at night in neighborhood			1.098	1.168*
year dummies	yes	yes	yes	yes
region dummies	yes	yes	yes	yes
occupation dummies	no	no	no	yes
constant	0.139***	0.259***	0.377**	0.220***
very happy				
3-4k	0.907*	0.903*	0.862	0.909
5-8k	0.918	0.913*	0.936	0.965
9-14k	0.995	0.984	0.929	0.912
15-23k	0.918	0.907*	0.889	0.900
24-40k	0.908*	0.891**	0.948	0.903
41-78k	0.950	0.932	0.939	1.010
79-188k	0.972	0.956	0.962	0.937
190-622k	0.892**	0.875**	0.852	0.892
.6-8m	0.931	0.917	0.959	0.844
age of respondent	0.962***	0.961***	0.976***	0.983*
age squared	1.000***	1.000***	1.000***	1.000***
married	1.965***	1.983***	1.997***	2.144***
unemployed	0.710***	0.713***	0.617***	0.696*
income quantiles	1.128***	1.111***	1.047**	1.026
white household	1.087	1.081	1.006	0.977
black household	0.894	0.900	0.884	1.035
democrat	0.891***	0.895***	0.863***	0.924
liberal	1.000	0.989	1.019	0.977
highest year of school completed		1.020***	0.988	0.988
trust			1.209***	1.175**
health			1.715***	1.762***
afraid to walk at night in neighborhood			0.901**	0.828***
year dummies	yes	yes	yes	yes
region dummies	yes	yes	yes	yes
occupation dummies	no	no	no	yes
constant	0.555***	0.468***	0.092***	0.102***
N	35495	35455	12666	8278

*** p<0.01, ** p<0.05, * p<0.1

attenuate urban-rural happiness gradient because more minorities live in bigger areas and they are less happy than whites. Still, the gradient persists. Columns a2 and a3 add additional controls, which unfortunately have many values missing. Cities have economic profiles that determine labor market and demographic characteristics of the population, which may

Table 2: Multinomial survey weighted regressions of happiness on XNORCSIZ. Base category is the middle one, “pretty happy.” Odds ratios shown. Size variables are defined in appendix A.

	a1	a2	a3	a4
not too happy				
lt 2.5k	1.084	1.099	1.354	1.432
2.5-10k	1.049	1.067	1.095	1.331
10-50k	0.967	1.013	1.270	1.309
uninc med	1.156	1.191	1.227	1.447
uninc lrg	1.109	1.159	1.576**	1.658**
med sub	1.173*	1.212**	1.314	1.362
lrg sub	1.268***	1.340***	1.479***	1.556**
50-250k	1.125	1.188**	1.239	1.265
gt 250k	1.356***	1.443***	1.556***	1.589**
age of respondent	1.048***	1.050***	1.061***	1.057***
age squared	1.000***	1.000***	0.999***	0.999***
married	0.651***	0.626***	0.538***	0.483***
unemployed	2.105***	2.025***	2.002***	1.785***
income quantiles	0.753***	0.793***	0.843***	0.841***
white household	0.810**	0.839**	1.000	0.946
black household	1.174*	1.171*	1.277	1.307
democrat	0.961	0.959	0.949	0.993
liberal	1.029	1.058	1.093	1.082
highest year of school completed		0.932***	0.956***	0.971
trust			0.563***	0.605***
health			0.724***	0.678***
afraid to walk at night in neighborhood			1.103	1.176*
year dummies	yes	yes	yes	yes
region dummies	yes	yes	yes	yes
occupation dummies	no	no	no	yes
constant	0.146***	0.275***	0.388**	0.177***
very happy				
lt 2.5k	1.088	1.081	1.042	1.094
2.5-10k	0.919	0.909	0.904	0.913
10-50k	1.032	1.015	0.982	0.881
uninc med	1.000	0.988	0.969	0.914
uninc lrg	0.936	0.920	0.904	0.930
med sub	0.957	0.942	0.906	0.938
lrg sub	0.972	0.953	0.971	0.933
50-250k	0.985	0.964	0.906	0.933
gt 250k	0.943	0.923	0.959	0.884
age of respondent	0.962***	0.961***	0.976***	0.982*
age squared	1.000***	1.000***	1.000***	1.000***
married	1.963***	1.981***	1.995***	2.144***
unemployed	0.710***	0.713***	0.617***	0.699*
income quantiles	1.129***	1.112***	1.046**	1.028
white household	1.086	1.081	1.003	0.973
black household	0.895	0.902	0.881	1.027
democrat	0.890***	0.895***	0.862***	0.924
liberal	1.001	0.990	1.018	0.975
highest year of school completed		1.019***	0.988	0.988
trust			1.209***	1.178***
health			1.714***	1.761***
afraid to walk at night in neighborhood			0.898**	0.828***
year dummies	yes	yes	yes	yes
region dummies	yes	yes	yes	yes
occupation dummies	no	no	no	yes
constant	0.534***	0.452***	0.092***	0.103***
N	35495	35455	12666	8278

*** p<0.01, ** p<0.05, * p<0.1

impact happiness.⁹ In an effort to account for this, column a4 adds dummies for major occupation categories (International Standard Classification codes): professional, administrative/managerial, clerical, sales, service, agriculture, production and transport, craft and technical. The results persist. Still, future research may improve on this by using geocoded

⁹I am grateful to an anonymous reviewer for this point.

Table 3: Multinomial survey weighted regressions of happiness on SRCBELT. Odds ratios shown. Base category is the middle one, “pretty happy.” Size variables are defined in appendix A.

	a1	a2	a3	a4
not too happy				
small urb	1.077	1.113	1.163	1.145
13-100 sub	1.133	1.191**	1.171	1.132
1-12 sub	1.403***	1.493***	1.657***	1.598***
13-100 msa	1.267***	1.347***	1.411**	1.307
1-12 msa	1.390***	1.466***	1.334*	1.299
age of respondent	1.048***	1.051***	1.061***	1.058***
age squared	1.000***	1.000***	0.999***	0.999***
married	0.654***	0.628***	0.538***	0.486***
unemployed	2.104***	2.025***	1.997***	1.773***
income quantiles	0.751***	0.790***	0.841***	0.838***
white household	0.826**	0.857*	1.036	0.965
black household	1.179*	1.178*	1.314*	1.312
democrat	0.960	0.959	0.949	0.990
liberal	1.030	1.059	1.096	1.088
highest year of school completed		0.931***	0.955***	0.971
trust			0.565***	0.608***
health			0.726***	0.678***
afraid to walk at night in neighborhood			1.100	1.168*
year dummies	yes	yes	yes	yes
region dummies	yes	yes	yes	yes
occupation dummies	no	no	no	yes
constant	0.142***	0.267***	0.386**	0.196***
very happy				
small urb	1.071	1.062	1.055	1.076
13-100 sub	1.027	1.012	1.023	1.003
1-12 sub	1.057	1.038	1.074	1.078
13-100 msa	0.977	0.960	0.972	0.994
1-12 msa	1.084	1.067	1.147	1.019
age of respondent	0.962***	0.961***	0.976***	0.983*
age squared	1.000***	1.000***	1.000***	1.000***
married	1.970***	1.987***	2.003***	2.150***
unemployed	0.711***	0.713***	0.619***	0.695*
income quantiles	1.125***	1.110***	1.044**	1.024
white household	1.093	1.087	1.012	0.985
black household	0.894	0.900	0.878	1.039
democrat	0.891***	0.895***	0.862***	0.923
liberal	0.998	0.988	1.018	0.973
highest year of school completed		1.019***	0.988	0.988
trust			1.213***	1.180***
health			1.713***	1.761***
afraid to walk at night in neighborhood			0.893**	0.825***
year dummies	yes	yes	yes	yes
region dummies	yes	yes	yes	yes
occupation dummies	no	no	no	yes
constant	0.496***	0.422***	0.084***	0.090***
N	35495	35455	12666	8278

*** p<0.01, ** p<0.05, * p<0.1

data and controlling for actual economic profile of each place.

Fischer (1973) and Campbell et al. (1976) suggested that it may not be that the city size by itself produces unhappiness, but it is the state of the American cities, their current problems (crime, congestion, etc). I elaborate models to account for many city problems: crime, lack of trust, and potential health problems due to urban stress, and the happiness gradient still persists. The point of this robustness exercise is to show that Wirth (1938) was right saying that city unhappiness happens because of the size, not because of other negative

things that happen in city (e.g., crime).

Social support is important for happiness (Diener 2012), and it seems that people in cities lack it (Wirth 1938). Ideally, it should be controlled for directly, but the trust variable used in this study should pick up some of it. Urbanites are less trusting than others. In largest cities, about 32% of respondents think that most people can be trusted, while in areas smaller than 190 thousand, 39% of respondents think that most people can be trusted. Trust variable attenuates only slightly the negative effect of city on happiness.

How about unhappiness in suburbs? Note that odds ratios on suburbs in first panels of tables 2 and 3 are bigger than 1: suburbanites are about as unhappy as urbanites.

It could be argued that it may not be the size of the cities, but pollution and noise in cities. Both pollution (MacKerron and Mourato 2009) and noise (Weinhold 2013) make people unhappy. GSS does not measure pollution and noise, and it remains for the future research to control for them. Yet, it can be also argued that both pollution and noise are defining characteristics of cities, and hence they are accounted for in this study by variables measuring city size. To be sure, cities differ in terms of noise and pollution, but in general the larger the settlement, the more noise and pollution.

Finally, I have recoded ordinal happiness into a binary variable by coding “not too happy” as “0” and collapsing together “pretty happy” and “very happy” into “1”. Results were similar.

Tables 4, 5, and 6 present reverse Helmert contrasts.¹⁰ The idea behind these contrasts is to test whether each successive size of a place is less happy than the average for smaller places. That is, this procedure provides a test for a threshold effect—to use wording from the title—at which point a place is too big. Place is too big when it reaches hundreds of thousands

¹⁰I thank anonymous reviewer for bringing this procedure to my attention. More elaboration can be found in Mitchell and Press (2012, p. 187).

of people—such conclusion is based on tables 4, 5, and 6.

Table 4: Reverse Helmert contrasts for size of a place based on specification a1 (base case pretty happy).

category	not too happy			very happy		
	contrast	p value	95% CI	contrast	p value	95% CI
3-4k vs 0-2k	0.09	0.33	-0.09, 0.28	-0.10	0.06	-0.20, 0.01
5-8k vs <5-8k	0.20	0.01	0.05, 0.36	-0.04	0.49	-0.14, 0.07
9-14k vs <9-14k	0.03	0.74	-0.12, 0.17	0.06	0.25	-0.04, 0.15
15-23k vs <15-23k	-0.08	0.29	-0.24, 0.07	-0.04	0.44	-0.14, 0.06
24-40k vs <24-40k	-0.09	0.27	-0.24, 0.07	-0.04	0.36	-0.13, 0.05
41-78k vs <41-78k	0.08	0.26	-0.06, 0.22	0.01	0.82	-0.08, 0.11
79-188k vs <79-188k	0.15	0.02	0.02, 0.27	0.03	0.48	-0.06, 0.12
190-622k vs <190-622k	0.15	0.02	0.02, 0.27	-0.06	0.20	-0.15, 0.03
.6-8m vs <.6-8m	0.21	0.00	0.09, 0.33	-0.01	0.87	-0.11, 0.10

Table 5: Reverse Helmert contrasts for XNORCSIZ based on specification a1 (base case: pretty happy).

category	not too happy			very happy		
	contrast	p value	95% CI	contrast	p value	95% CI
lt 2.5k vs country	0.08	0.53	-0.17, 0.34	0.08	0.20	-0.04, 0.21
2.5-10k vs <2.5-10k	0.01	0.94	-0.21, 0.22	-0.13	0.06	-0.26, 0.01
10-50k vs <10-50k	-0.08	0.45	-0.27, 0.12	0.03	0.62	-0.09, 0.15
uninc med vs <uninc med	0.12	0.20	-0.06, 0.31	-0.01	0.90	-0.12, 0.10
uninc lrg vs <uninc lrg	0.06	0.59	-0.14, 0.25	-0.07	0.20	-0.18, 0.04
med sub vs <med sub	0.10	0.14	-0.03, 0.24	-0.04	0.42	-0.13, 0.06
lrg sub vs <lrg sub	0.17	0.00	0.06, 0.27	-0.02	0.64	-0.09, 0.05
50-250k vs <50-250k	0.03	0.65	-0.08, 0.13	-0.00	0.96	-0.08, 0.08
gt 250k vs <gt 250k	0.21	0.00	0.11, 0.31	-0.05	0.26	-0.12, 0.03

Table 6: Reverse Helmert contrasts for SRCBELT based on specification a1 (base case: pretty happy).

category	not too happy			very happy		
	contrast	p value	95% CI	contrast	p value	95% CI
small urb vs small rur	0.07	0.25	-0.05, 0.20	0.07	0.11	-0.02, 0.15
13-100 sub vs <13-100 sub	0.09	0.17	-0.04, 0.21	-0.01	0.86	-0.09, 0.08
1-12 sub vs <1-12 sub	0.27	0.00	0.14, 0.40	0.02	0.60	-0.06, 0.11
13-100 msa vs <13-100 msa	0.10	0.07	-0.01, 0.21	-0.06	0.13	-0.14, 0.02
1-12 msa vs <1-12 msa	0.17	0.01	0.04, 0.30	0.06	0.33	-0.06, 0.17

Size of a place is related to residents’ unhappiness. There are, however, several alternative explanations, factors that correlate with size of a place and affect happiness, and may bias results. Regression models do not control for them, because GSS does not contain appropriate variables. People in big cities may have higher expectations than people elsewhere—they may be the so-called “over-achievers” who never get completely satisfied.¹¹ On the other hand, there are many poor people either stuck (cannot afford to move) in the cities, or many poor who came to cities looking for a better life. Much of their misery, however, should be picked up by income, race, and other variables. Last, but not least, some of the arguably most unhappy urban dwellers are unaccounted for, that is, cities are in fact even less happy than argued here. These dwellers include homeless people, addicts, criminals, prostitutes, and so forth.¹²

¹¹This idea comes from a friend of mine, who works for one of the “Big Four” business consulting firms in a big city and that’s what she has observed among her colleagues.

¹²I am grateful to an anonymous reviewer for this point.

References

- ADAMS, R. E. (1992): "Is Happiness a Home in the Suburbs?: The Influence of Urban Versus Suburban Neighborhoods on Psychological Health." *Journal of Community Psychology*, 20, 353–372.
- ADAMS, R. E. AND R. T. SERPE (2000): "Social Integration, Fear of Crime, and Life Satisfaction," *Sociological Perspectives*, 43, 605–629.
- AMATO, P. R. AND J. ZUO (1992): "Rural Poverty, Urban Poverty, and Psychological Well-being," *Sociological Quarterly*, 33, 229–240.
- BALDUCCI, A. AND D. CHECCHI (2009): "Happiness and Quality of City Life: The Case of Milan, the Richest Italian City." *International Planning Studies*, 14, 25–64.
- BALLAS, D. (2013): "What makes a 'happy city'?" *Cities*, 32, S39–S50.
- BERRY, B. J. AND A. OKULICZ-KOZARYN (2011): "An Urban-Rural Happiness Gradient," *Urban Geography*, 32, 871–883.
- BERRY, B. J. L. AND A. OKULICZ-KOZARYN (2009): "Dissatisfaction with City Life: A New Look at Some Old Questions," *Cities*, 26, 117–124.
- BRAY, I. AND D. GUNNELL (2006): "Suicide rates, life satisfaction and happiness as markers for population mental health," *Social Psychiatry and Psychiatric Epidemiology*, 41, 333–337.
- BRICKMAN, P., D. COATES, AND R. JANOFF-BUMAN (1978): "Lottery winners and accident victims: Is happiness relative?" *Journal of Personality and Social Psychology*, 36, 917–927.

- BRYNJOLFSSON, E. AND A. MCAFEE (2014): *The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies*, WW Norton & Company, New York NY.
- CAMPBELL, A., P. E. CONVERSE, AND W. L. RODGERS (1976): *The quality of American life: perceptions, evaluations, and satisfactions*, Russell Sage Foundation, New York NY.
- CAPELLO, R. AND R. CAMAGNI (2000): “Beyond optimal city size: an evaluation of alternative urban growth patterns,” *Urban Studies*, 37, 1479–1496.
- CHEN, J., D. S. DAVIS, K. WU, AND H. DAI (2015): “Life satisfaction in urbanizing China: The effect of city size and pathways to urban residency,” *Cities*, 49, 88–97.
- DI TELLA, R. AND R. MACCULLOCH (2006): “Some Uses of Happiness Data in Economics,” *The Journal of Economic Perspectives*, 20, 25–46.
- DI TELLA, R., R. J. MACCULLOCH, AND A. J. OSWALD (2001a): “The macroeconomics of happiness,” Warwick Economic Research Papers No 615.
- (2001b): “Preferences over inflation and unemployment: Evidence from surveys of happiness,” *American Economic Review*, 91, 335–341.
- DIENER, E. (2009): *Well-being for public policy*, Oxford University Press, New York NY.
- (2012): “New findings and future directions for subjective well-being research,” *American Psychologist*, 67, 590–597.
- DIENER, E. AND R. E. LUCAS (1999): “Personality and Subjective Well-Being,” in *Well-Being: Foundations of Hedonic Psychology: Foundations of Hedonic Psychology*, Russell Sage Foundation, New York NY, 213–229.

- DIENER, E. AND M. E. P. SELIGMAN (2004): "Beyond Money: Toward an Economy of Well-being," *Psychological Science*, 5, 1–31.
- DORAHY, M. J., C. A. LEWIS, J. F. SCHUMAKER, R. AKUAMOAH-BOATENG, M. DUZE, AND T. E. SIBIYA (1998): "A cross-cultural analysis of religion and life satisfaction." *Mental Health, Religion & Culture*, 1, 37–43.
- DREIER, P., T. SWANSTROM, AND J. MOLLENKOPF (2005): *Place Matters: Metropolitcs For The Twenty-First Century(Studies In Government & Public Policy) Author: Peter Dreie*, University Press of Kansas, Lawrence KS.
- DUANY, A., E. PLATER-ZYBERK, AND J. SPECK (2001): *Suburban nation: The rise of sprawl and the decline of the American dream*, North Point Press, New York NY.
- EASTERLIN, R. (2013): "Happiness, Growth, and Public Policy," *Economic Inquiry*, 51, 1–15.
- ELGIN, D. (1975): *City size and the quality of life*, US Government Printing Office.
- EVANS, R. J. (2009): "A Comparison of Rural and Urban Older Adults in Iowa on Specific Markers of Successful Aging," *Journal of Gerontological Social Work*, 52, 423–438.
- EWING, R. (1997): "Is Los Angeles-style sprawl desirable?" *Journal of the American planning association*, 63, 107–126.
- EWING, R., T. SCHMID, R. KILLINGSWORTH, A. ZLOT, AND S. RAUDENBUSH (2003): "Relationship between urban sprawl and physical activity, obesity, and morbidity," *American Journal of Health Promotion*, 18, 47–57.
- FISCHER, C. S. (1972): "Urbanism as a Way of Life (A Review and an Agenda)," *Sociological Methods and Research*, 1, 187–242.

- (1973): “Urban malaise,” *Social Forces*, 52, 221–235.
- (1975): “Toward a subcultural theory of urbanism,” *American Journal of Sociology*, 80, 1319–1341.
- (1982): *To dwell among friends: Personal networks in town and city*, University of Chicago Press, Chicago IL.
- FISCHER, C. S. AND R. K. MERTON (1976): *The urban experience*, Harcourt Brace Jovanovich New York.
- FLORIDA, R. (2008): *Who’s your city?*, Basic Books, New York NY.
- FREIDMAN, T. (2005): “The world is flat,” *Farrar, Straus and Giroux*, New York NY.
- FRUMKIN, H. (2002): “Urban sprawl and public health,” *Public health reports*, 117, 201–217.
- FUGUITT, G. V. AND D. L. BROWN (1990): “Residential Preferences and Population Redistribution,” *Demography*, 27, 589–600.
- FUGUITT, G. V. AND J. J. ZUICHES (1975): “Residential Preferences and Population Distribution,” *Demography*, 12, 491–504.
- GLAESER, E. (2011): *Triumph of the City: How Our Greatest Invention Makes Us Richer, Smarter, Greener, Healthier, and Happier*, Penguin Press, New York NY.
- GURIN, G., J. VEROFF, AND S. FELD (1960): *Americans view their mental health: A nationwide interview survey.*, Basic Books, New York NY.
- HANSON, V. D. (2015): “The Oldest Divide. With roots dating back to our Founding, America’s urban-rural split is wider than ever.” *City Journal*, Autumn 2015.

- JACOBS, J. ([1961] 1993): *The death and life of great American cities*, Random House, New York NY.
- JARGOWSKY, P. A. (1997): *Poverty and place: Ghettos, barrios, and the American city*, Russell Sage Foundation, New York NY.
- JOST, J. T., C. M. FEDERICO, AND J. L. NAPIER (2009): “Political Ideology: Its Structure, Functions, and Elective Affinities,” *Annual Review of Psychology*, 60, 307–337.
- JOST, J. T., A. W. KRUGLANSKI, J. GLASER, AND F. J. SULLOWAY (2003): “Political Conservatism as Motivated Social Cognition.” *Psychological Bulletin*, 129, 339–375.
- KAY, J. H. (1997): *Asphalt nation: how the automobile took over America, and how we can take it back*, University of California Press, Berkeley CA.
- KNIGHT, J., L. SHI, AND L. SONG (2006): “The rural-urban divide and the evolution of political economy in China,” in *Human Development in the Era of Globalization: Essays in Honor of Keith B. Griffin*, ed. by P. K. P. James K. Boyce, Stephen Cullenberg and R. Pollin, Edward Elgar Publishing, Northampton MA, 44–64.
- KUNSTLER, J. H. (2012): *The geography of nowhere*, Simon and Schuster, New York NY.
- LAYARD, R. (2005): *Happiness. Lessons from a new science.*, The Penguin Press, New York NY.
- LEDERBOGEN, F., P. KIRSCH, L. HADDAD, F. STREIT, H. TOST, P. SCHUCH, S. WUST, J. C. PRUESSNER, M. RIETSCHEL, M. DEUSCHLE, AND A. MEYER-LINDENBERG (2011): “City living and urban upbringing affect neural social stress processing in humans,” *Nature*, 474.

- LU, C., G. SCHELLENBERG, F. HOU, AND J. F. HELLIWELL (2015): “How’s Life in the City? Life Satisfaction Across Census Metropolitan Areas and Economic Regions in Canada,” *Economic Insights*, 11-626-X.
- LYKKEN, D. AND A. TELLEGEN (1996): “Happiness is a Stochastic Phenomenon,” *Psychological Science*, 7, 186–189.
- MACKERRON, G. AND S. MOURATO (2009): “Life Satisfaction and Air Quality in London,” *Ecological Economics*, 68, 1441–1453.
- MEYER, W. B. (2013): *The Environmental Advantages of Cities: Countering Commonsense Antiurbanism*, MIT Press, Cambridge MA.
- MICHALOS, A. (1985): “Multiple discrepancies theory (MDT),” *Social Indicators Research*, 16, 347–413.
- MITCHELL, M. N. AND S. PRESS (2012): *Interpreting and visualizing regression models using Stata*, Stata Press, College Station TX.
- MYERS, D. G. (2000): “The Funds, Friends, and Faith of Happy People,” *American Psychologist*, 55, 56–67.
- NAPIER, J. L. AND J. T. JOST (2008): “Why are Conservatives Happier than Liberals?” *Psychological Science*, 19, 565–72.
- OKULICZ-KOZARYN, A. (2011): “City Life: Rankings (Livability) Versus Perceptions (Satisfaction),” *Social Indicators Research*, 110, 433–451.
- (2015): *Happiness and Place. Why Life is Better Outside of the City.*, Palgrave Macmillan, New York NY.

- PARK, R. E. (1915): “The city: Suggestions for the investigation of human behavior in the city environment,” *The American Journal of Sociology*, 20, 577–612.
- PARK, R. E., E. W. BURGESS, AND R. D. MAC KENZIE ([1925] 1984): *The city*, University of Chicago Press, Chicago IL.
- PAWSON, R. AND N. TILLEY (1997): *Realistic evaluation*, Sage, Beverly Hills CA.
- SANFEY, P. AND U. TEKSOZ (2005): “Does Transition Make You Happy?” EBRD Working Paper 58.
- SAVITCH, H. (2010): “What makes a great city great? An American perspective,” *Cities*, 27, 42–49.
- SIMMEL, G. (1903): “The metropolis and mental life,” *The urban sociology reader*, 23–31.
- SINGELL, L. D. (1974): “Optimum city size: Some thoughts on theory and policy,” *Land Economics*, 207–212.
- STIGLITZ, J., A. SEN, AND J. FITOUSSI (2009): “Report by the Commission on the measurement of economic performance and social progress,” *Available at www.stiglitz-sen-fitoussi.fr*.
- SUBRAMANIAN, S. V. AND J. M. PERKINS (2009): “Are republicans healthier than democrats?” *International Journal of Epidemiology*, 39, 930–931.
- TÖNNIES, F. ([1887] 2002): *Community and society*, DoverPublications.com, Mineola NY.
- VEBLEN, T. (2005a): *Conspicuous consumption*, vol. 38, ePenguin, New York NY.
- (2005b): *The theory of the leisure class; an economic study of institutions*, Aakar Books, New York NY.

VEENHOVEN, R. (1994): “How Satisfying is Rural Life?: Fact and Value,” in *Changing Values and Attitudes in Family Households with Rural Peer Groups, Social Networks, and Action Spaces: Implications of Institutional Transition in East and West for Value Formation and Transmission*, ed. by J. Cecora, Society for Agricultural Policy Research and Rural Sociology (FAA).

——— (2008): “Sociological theories of subjective well-being,” in *The Science of Subjective Well-being: A tribute to Ed Diener*, ed. by M. Eid and R. Larsen, The Guilford Press, New York NY, 44–61.

WEINHOLD, D. (2013): “The Happiness-Reducing Costs of Noise Pollution,” *Journal of regional science*, 53, 292–303.

WHITE, M. G. AND L. WHITE (1977): *The intellectual versus the city: from Thomas Jefferson to Frank Lloyd Wright*, Oxford University Press, Oxford UK.

WIRTH, L. (1938): “Urbanism as a Way of Life,” *American Journal of Sociology*, 44, 1–24.