Author's response
Manuscript Number: ARIQ-D-22-00444

Title: Unhappy Metros: Panel Evidence

August 17, 2022

Contents

1 Response to Editor

Dear Professor Shek,

Thank you for the opportunity to submit a revised draft. I list below in inline format my brief responses to reviewers' comments and attach at the end tracked changes that show precisely the additions and deletions.

Best,
Author

2 Response to Reviewer #1

The paper is interesting but it is a pure statistical exercise. I think that at least a paragraph should be written concerning why people prefer to live in the city than in the rural context, despite SWB is higher in the second one.

added to theory section

This would make possible to consider different aspects of SWB and their priority.

added to future research/limitations

3 Response to Reviewer #2

added theory section

3

yes added a new subsection re limitations and future research

4 Tracked Text Changes

(see next page)

Unhappy Metros: Panel Evidence

Wednesday 17ᵗʰ August, 2022   12:22

abstract: We study the effect of urbanicity (metro v nonmetro) on life satisfaction, or Subjective WellBeing (SWB). The literature agrees that residents of metropolitan areas tend to be less satisfied with their lives than residents of smaller settlements in the developed world. But the existing evidence is cross-sectional only. This is the first study using longitudinal dataset to test the "unhappy metro" hypothesis. Using the 2009-2019 US Panel Study of Income Dynamics (PSID), we find support for the cross-sectional findings: metros are less happy than nonmetros. The effect size is ~~substantial~~practically significant, the negative effect of metro v nonmetro is equivalent to the effect of one's health deteriorating about a third from "fair" to "poor." Given extremely large scale of urbanization, projected 6b of people from 1950 to 2050, the combined effect of urbanicity on human wellbeing is large.

keywords: Panel Study of Income Dynamics (PSID), urban-rural happiness gradient, urban, cities, happiness, life satisfaction, Subjective WellBeing (SWB)

"With urbanization comes disharmony" The Dalai Lama

1 Introduction

For over 95% of our evolutionary history, humans have lived without cities as hunter-gatherers usually in small bands of 50-80 people (Maryanski and Turner 1992). ~~In~~ Only several generations ago, in 1800~~a mere~~, a minuscule 1.7% of the world population lived in cities larger than 100k (Davis 1955). Humans have not evolved to live in settlements of millions of inhabitants at high densities, such as cities. Human nature is unlike that of ants or bees: by one estimate we're 90% chimp and only 10% bee (Haidt 2012).

Urbanism is not just built environment, it is a way of life (Wirth 1938). Urbanism affects humans in multiple and profound ways, indeed urbanism is arguably the most significant disruption of human habitat in our species history (Okulicz-Kozaryn 2015). World is urbanizing at an astonishing pace–urban population is projected to increase from .75b in 1950 in to 6.75b in 2050 (`population.un.org/wup`)–6 billion urbanites more over just 100 years.

At the same time, an agreement has emerged that in addition to the traditional development measures such as Gross Domestic Product (GDP) and Human Development Index (HDI), it is useful to measure human development as Subjective WellBeing (SWB) (Stiglitz et al. 2009, Diener 2009). Hence, the present study ~~estimating~~ estimates the effect of urbanicity on SWB.

~~There are multiple studies~~ Many studies are finding lowest happiness in largest cities (e.g., Gurin et al. 1960, Campbell et al. 1976, Senior 2006, Office for National Statistics 2011, Chatterji 2013, Lu et al. 2015, Lenzi and Perucca 2016, Morrison 2015, Morrison and Weckroth 2017, Okulicz-Kozaryn and Valente 2021, Lenzi and Perucca 2021). Yet all studies to date are ~~cross-sectional longitudinal~~ cross-sectional. Longitudinal evidence is missing.

Rehdanz and Maddison (2008) uses a German panel dataset (GSOEP), properly defining urban rural gradient with multiple cutoffs including at several hundred thousand, but without panel modeling techniques such as fixed or random effects.

Few studies about the effect of place on SWB using panel data do not actually test the urban unhappiness hypothesis. White et al. (2013b) and White et al. (2013a) use British Household Panel Study (BHPS) but test green space (such as gardens, parks, and proximity to coast), not size of a place. Similarly, Alcock et al. (2014) is a panel study (BHPS) but also examining green space, not size

of a place.

Hoogerbrugge and Burger (2021) also using BHPS test green space effect, not urbanism. The size of a place cutoff is at 10,000 or 3,000 people for Scotland. Hence, much of the places above the cutoff, such as large villages and small towns are not really "urban." They are lacking defining features of urbanness: size, density, and heterogeneity ~~Wirth (1938)~~(Wirth 1938). The build environment in villages or small towns lacks tall buildings, urban transit, airports, etc. Way of life in such places is not urban ~~either cities are shallow, transitory, superficial, and conspicuous~~ either (Tönnies [1887] 2002, Park 1915, Wirth 1938, White and White 1977) . Urbanicity, ideally, should be measured as a gradient, but if a binary cutoff is necessary, it should be at several hundred thousand (Okulicz-Kozaryn 2016), not at 3 or 10 thousand as in Hoogerbrugge and Burger (2021).

2   Theory

There are at least several theories predicting the effect of urbanism on SWB. It is useful to start with evolution as genes determine about half of SWB (Schnittker 2008, Lykken and Tellegen 1996, Brooks 2013) , and drive many other theories.[1] As already indicated in the introduction humans have not evolved for city life among thousands of people densely packed together in an artificial setting made of concrete, metal, and plastic. Again, for over 95% of human evolutionary history there were no cities–hunters-gatherers lived in bands of 50-80 (Maryanski and Turner 1992).

Ingroup preference or homophily ("love of the same") theory states that a human has a preference for other humans like her–ingroups typically contain similar persons (McPherson et al. 2001, Tajfel 1982, Tajfel et al. 1

---

[1]Interestingly, neuroscience is becoming interested in urbanism (Adli et al. 2017, Pykett et al. 2020), and initial empirical results indicate negative effect of urbanism on human brain (Lederbogen et al. 2011).

. A defining feature of a city is heterogeneity or diversity (Wirth 1938), which produces: mistrust, uneasiness, conflict, and misanthropy (Milgram 1970, Thrift 2005, Amin 2006).[2]

Livability theory (Veenhoven and Ehrhardt 1995, Veenhoven 2014, 2000) states that humans, just as other animals, have needs (such as those on Maslow hierarchy of needs (Maslow [1954] 1987)), and if those needs are satisfied, then conditions are livable and happiness follows. As opposed to evolution and homophily indicating urban unhappiness, it is somewhat unclear what livability theory predicts regarding urbanism. Theory author, Veenhoven, has tended to argue (personal conversations) that at least some aspects of urbanism improve livability, and hence, happiness. Clearly, cities have multiple benefits (Meyer 2013, Florida 2008, Glaeser 2011, O'Sullivan 2009), notably jobs and amenities that improve livability and happiness. But cities also do have multiple disamenities such as more congestion, crime, infectious disease spread, air, noise, and light pollutions (Bettencourt and West 2010, Bettencourt et al. 2007, N . If happiness is a yardstick to be considered, then city disadvantages outweigh city advantages, at least in the developed world (Okulicz-Kozaryn and Valente 2021).

Multiple Discrepancies Theory (MDT) (Michalos 1985, 2014) states that happiness is relative and a result of multiple comparisons. Arguably, visual and social comparisons are more likely in urban areas as there are more people and more stimuli. And there is some evidence that humans tend to make upwards comparisons (Frey and Stutzer 2002) thus ending up relatively deprived (e.g., Luttmer 2005, Frank 2012) .

Classic urban sociology has produced much insight on the effect of urbanism on human condition: City destroys norms, social fabric, and moral compass; And produces instead disorder, overstimulation,

---

[2]Yet, on the other hand, in a city there can be community, a neighborhood village, that at least in some ways can simulate a more natural habitat for a human (Fischer 1995, 1975, Jacobs [1961] 1993).

and withdrawal (Wirth 1938, Simmel 1903, Tönnies [1887] 2002, Park et al. [1925] 1984, Fischer 1972, 1973).

Economists, on the other hand, tend to argue triumph of the city (Glaeser et al. 2016, Glaeser 2011): humans are rational (economics assumption) and they urbanize (revealed preference), so there must be more utility in cities, and probably more happiness; Or alternatively: there is more money (income and consumption) in cities, so there is also more utility, so again there should be probably more happiness. If utility is happiness,[3] then lower happiness in cities challenges economic theory.

A curious alternative is that "happiness is a commodity in the utility function in the same way that owning a car and being healthy are" (Becker and Rayo 2008, p. 89). This strange statement may actually make some sense: happiness is not all that matters to humans and drives human behavior. Humans may chose to move to and/or stay in cities even if they are less happy there and still be rational: one may trade off happiness loss for increase in income, prestige, pride, etc. In many ways an urbanite has a fuller/faster life: exciting and stimulating experiences and encounters, etc (e.g., Okulicz-Kozaryn and Valente 2017).

Yet, it is clear that humans are not fully rational as economics assumes it (Frank 2012, Ariely 2009, Kahneman 1994) –humans consistently and often predictably make decisions that they regret–for a refreshing perspective see Ware (2012). Ware (2012), as a palliative nurse, had a unique chance to learn about regrets from those who are possibly best positioned to voice them, the dying–they have lived their life and have nothing to lose and can be honest and open up.

---

[3]There is a debate whether utility is happiness and it is beyond the scope of this study, for discussion see Van Der Deijl (2018), Welsh (2016), Hirschauer et al. (2015), Kenny (2011), Ng (2011), Clark et al. (2008), Frey et al. (2008), Becker and

Americans move to places mostly for jobs (Campbell 1981), and since companies (and government and nonprofits) locate most jobs in urban areas, this is where most people have to move to in order to have a job. That people move to and/or stay in cities does always mean that they prefer it–people are often rather forced into cities than urbanize voluntarily (Molotch 1976).

3 Data and model

We use the 2009-2019 US Panel Study of Income Dynamics (PSID) from `psidonline.isr.umich.edu`. We cannot use earlier waves because the SWB question started in 2009. We use the family files and only retain the reference person following Brown and Gathergood (2019).

The SWB question reads: "Please think about your life as a whole. How satisfied are you with it? Are you completely satisfied, very satisfied, somewhat satisfied, not very satisfied, or not at all satisfied?" on scale from 1 (low) to 5 (high).

The key independent variable is the metro dummy variable as defined in table 1. Summary statistics of all variables are in Supplementary Online Material (SOM).

metro	beale rural-urban code	description
1	1	Metro: Counties in metro areas of 1 million population or more
1	2	Metro: Counties in metro areas of 250,000 to 1 million population
1	3	Metro: Counties in metro areas of fewer than 250,000 population
0	4	Nonmetro: Urban population of 20,000 or more, adjacent to a metro area
0	5	Nonmetro: Urban population of 20,000 or more, not adjacent to a metro area
0	6	Nonmetro: Urban population of 2,500 to 19,999, adjacent to a metro area
0	7	Nonmetro: Urban population of 2,500 to 19,999, not adjacent to a metro area
0	8	Nonmetro: Completely rural or less than 2,500 urban population, adjacent to a metro area
0	9	Nonmetro: Completely rural or less than 2,500 urban population, not adjacent to a metro area

Table 1: Metro variable: Metropolitan/Non-metropolitan Indicator. This indicator is derived from the 2013 Beale-Ross Rural-Urban Continuum Codes published by USDA based on matches to the FIPS state and county codes: 1. Metropolitan area (Beale-Ross Code ER775923= 1-3); 0. Non-metropolitan area (Beale-Ross Code ER775923= 4-9). Each county in the U.S. is assigned one of the 9 codes.

We control for a usual set of SWB predictors following Okulicz-Kozaryn and Valente (2018). In addition, following Brown and Gathergood (2019) we control for distress.

There are three variables that not only predict SWB, but also are likely to be confounded with metro: race, political views, and religiosity–yet, as they are mostly constant over short period of time such as that considered here, they are irrelevant in fixed effects model. Race is definitely almost always constant over time, and while political views and religiosity do change, they rarely change much over just several years as studied here. Furthermore, there are no measures of political views in PSID.

The US is a geographically diverse country with a multitude of regional differences that may affect the results, notably urban areas differ in their character greatly depending on the region, and hence, we include state dummies. Following Brown and Gathergood (2019) we also add year dummies.

We use a standard Fixed Effects model. Although linear models assume cardinality of the outcome variable, and SWB measures are technically ordinal, cardinality can be assumed. Ferrer-i-Carbonell and Frijters (2004) has shown that linear model results are substantially the same as those from discrete models (and linear models are the default method in happiness research (Blanchflower and Oswald 2011)). Aside from ~~practical~~ statistical estimation, even theoretically, while there is still debate about the cardinality of SWB, there are strong arguments to treat it as cardinal (Ng 1996, 1997, 2011).

A standard fixed effects model is given by:

$$SWB_{it} = \gamma METRO_{it} X_{it} \beta + \alpha_i + u_{it} \tag{1}$$

Where, $METRO_{it}$ is a metro dummy for person i at time t. γ is the main coefficient of interest on

the metro dummy. α_i (i=1...n) is the unknown intercept for each person (n person-specific intercepts). SWB is the dependent variable, where i = person and t = wave (2009, 2011, 2013, 2015, 2017, 2019). X_{it} is a vector of control variables as listed in the Supplementary Online Material. β is the vector of coefficients for control variables. u_{it} is the error term. In Supplementary Online Material (SOM), we also present Random Effects, 2015 and 2015-2019 pooled OLS results–estimates on metro are stronger in these models, and hence, Fixed Effects results presented here are conservative estimates.

4   Results

Fixed effects regressions of `SWB` on `metro` are in table 2. Regression coefficient on `metro` is not significant without controlling for predictors of `SWB` in model a1. But addition of even most basic `SWB` predictors in model a2 makes `metro` negative at -.04 and statistically significant at .1 level of significance. This is an important finding: metro-nonmetro happiness gap only emerges after controlling for `SWB` predictors. Addition of further controls in a3 attenuates `metro` coefficient only slightly down to -.03. Addition of control for distress in model a4 and further addition of state and year dummies in a5 yields the same estimate as only controlling for basic `SWB` predictors in a2 at -.04.

Table 2: Fixed Effects regressions of SWB.

	a1	a2	a3	a4	a5
metro	0.01	-0.04*	-0.03*	-0.04**	-0.04*
age		0.02***	0.02***	0.01***	0.00
age sq		-0.00**	-0.00	-0.00	-0.00
last year total family income		0.00*	0.00	0.00	0.00
unemployed		-0.18***	-0.18***	-0.16***	-0.16***
male		0.27	0.21	0.07	0.08
health		0.13***	0.13***	0.10***	0.10***
kids			-0.01	-0.01	-0.01
college			-0.08*	-0.07	-0.07
married			0.18***	0.17***	0.17***
family unit size			0.04***	0.03***	0.03***
distress				-0.05***	-0.05***
constant	3.71***	2.37***	2.45***	2.90***	3.60***
state and year dummies	no	no	no	no	yes
N	37567	37489	36285	36142	36142

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

5   Conclusion and Discussion

Urbanism affects humans in multiple and profound ways (Wirth 1938), indeed urbanism is arguably

the most significant disruption of human habitat in our species history (Okulicz-Kozaryn 2015). In

addition to the traditional development measures such as Gross Domestic Product (GDP) and Human

Development Index (HDI), it is useful to measure human development as Subjective WellBeing (SWB)

(Stiglitz et al. 2009, Diener 2009). In the present study, we have focused on this important ~~intersection~~

relationship of urbanicity and SWB.

This is the first panel data investigation of metro-nonmetro SWB gap. The results confirm cross-sectional evidence of urban unhappiness. Time invariant person-level characteristics, such as personality traits, do matter–the fixed effects metro unhappiness disadvantage is only about half ~~in fixed effects model v~~ of that from single-year or pooled data ~~(estimates are in~~ models (see Supplementary Online Material (SOM)). While the estimate of -.04 on 1-5 SWB scale may seem small, such effect size is not irrelevant. Even a finding of no effect would be counterintuitive amid current pro-urbanism (Glaeser 2011, Glaeser et al. 2016, Burger et al. 2020). Regression coefficients on `metro` are not significant without controlling for predictors of SWB, so it is important to adjust the metro non-metro happiness gap with happiness predictors, unlike in Burger et al. (2020).[4]

About 50% of human traits are genetically determined (Ridley 2000), including happiness ~~(Lykken and Tellegen 199~~ (Lykken and Tellegen 1996, Brooks 2013, Schnittker 2008). Then person level characteristics such as health and unemployment matter, and only small proportion of SWB variation is due to environmental factors such as urbanness. Health is one of the ~~most important~~ strongest predictors of SWB (Pavot and Diener 2008, Gerdtham and Johannesson 2001). In full model, a5, the coefficient on 5-step `health` is .10, hence, for instance, the negative effect of metro at -.04 is equivalent to the effect of one's health deteriorating at least a third ~~or about half way~~ from "fair" to "poor."

Urban population is projected to increase by 6 billion, from .75b in 1950 in to 6.75b in 2050 (`population.un.org/wup`). Even an apparently small effect of -.04 on 1-5 SWB scale, but multiplied by billions of humans urbanized, results in ~~remarkable~~ massive human unhappiness. For instance,

---

[4]Burger et al. (2020) also uses faulty Gallup data as elaborated in Okulicz-Kozaryn and Valente (2021)–in general, one should avoid Gallup happiness data–Gallup charges $30,000 for access (per one year), clearly "happiness industry," not happiness research ~~Davies (2015)~~(Davies 2015).

given an urbanization of 1m of people, the unhappiness effect is equivalent to 40k people falling on SWB from "very satisfied" to "somewhat satisfied," or 10k people falling 4 steps from "very satisfied" to "not at all satisfied."

5.1 Limitations and Future Research

Future research can improve in a number of ways. Metro-nonmetro binary measure of urbanicity is limited–urbanicity is a gradient (Berry and Okulicz-Kozaryn 2011), not a dichotomy. Future research could use finer classification than binary metro-nonmetro. We have only had 6 waves of PSID data–as more waves become available, future research can arrive at more robust results. It will be also possible to estimate SWB from moving across urbanicity.

A limitation of 2009-2019 PSID used here is limited variability over time especially with respect to urbanicity and SWB, as these variables do not change much over time. The problem is somewhat alleviated as PSID waves are every two years, not every year. Still, it will be useful to replicate the study as more waves become available.

Claiming causality is always problematic without experimental design. Having panel data helps, notably with respect to time-invariant characteristics that were not controlled for, but still causality may not be present for a number of reasons. It needs to be remembered, however, that with respect to urbanicity, an experiment that would randomly assign persons to settlements of varying size is implausible. Likewise, there does not seem to be a clean quasi-experimental approach. But perhaps, there is an opportunity for better causal inference than presented here–suggestions are welcomed via email to the corresponding author.

Apart from technical/statistical considerations, there are conceptual directions for the future research. Human flourishing or subjective wellbeing is not only life satisfaction as studied here. Notably there are different dimensions or domains (Campbell et al. 1976). Overall life satisfaction is lower in urban than rural, but it doesn't mean that all domains follow the same pattern. Likewise, not all groups are necessarily less happy in city, for instance, the young, the educated, and the rich are arguably better able to take advantage of urban amenities and be less affected by urban disamenities. Future research can focus on subgroups following Tönnies ([1887] 2002), who observed that "city life and Gesellschaft down the common people to decay and death." (p. 231), "in the city and therefore, where general conditions characteristic of the Gesellschaft prevail, only the upper strata, the rich and the cultured, are really active and alive." (p. 227).

References

ADLI, M., M. BERGER, E.-L. BRAKEMEIER, L. ENGEL, J. FINGERHUT, A. GOMEZ-CARRILLO, R. HEHL, A. HEINZ, J. MAYER, N. MEHRAN, ET AL. (2017): "Neurourbanism: towards a new discipline," *The Lancet Psychiatry*, 4, 183–185.

ALCOCK, I., M. P. WHITE, B. W. WHEELER, L. E. FLEMING, AND M. H. DEPLEDGE (2014): "Longitudinal effects on mental health of moving to greener and less green urban areas," *Environmental science & technology*, 48, 1247–1255.

AMIN, A. (2006): "The good city," *Urban studies*, 43, 1009–1023.

ARIELY, D. (2009): *Predictably irrational, revised and expanded edition: The hidden forces that shape our decisions*, Harper.

BECKER, G. AND L. RAYO (2008): "Comment on 'Economic Growth and Subjective Well-Being: Reassessing the Easterlin Paradox' by Betsey Stevenson and Justin Wolfers," *Brookings Papers on Economic Activity*, 88–95.

BERRY, B. J. AND A. OKULICZ-KOZARYN (2011): "An Urban-Rural Happiness Gradient," *Urban Geography*, 32, 871–883.

BETTENCOURT, L. AND G. WEST (2010): "A unified theory of urban living," *Nature*, 467, 912–913.

BETTENCOURT, L. M., J. LOBO, D. HELBING, C. KÜHNERT, AND G. B. WEST (2007): "Growth, innovation, scaling, and the pace of life in cities," *Proceedings of the National Academy of Sciences*, 104, 7301–7306.

BLANCHFLOWER, D. G. AND A. J. OSWALD (2011): "International happiness: A new view on the measure of performance," *The Academy of Management Perspectives*, 25, 6–22.

BROOKS, A. C. (2013): "Formula for Happiness," *The New York Times*.

BROWN, G. D. A. AND J. GATHERGOOD (2019): "Consumption Changes, Not Income Changes, Predict Changes in Subjective Well-Being," *Social Psychological and Personality Science*, 0, 1948550619835215.

BURGER, M. J., P. S. MORRISON, M. HENDRIKS, AND M. M. HOOGERBRUGGE (2020): "Urban-Rural Happiness Differentials across the World," *World Happiness Report*.

13

CAMPBELL, A. (1981): *The sense of well-being in America: Recent patterns and trends*, McGraw-Hill Companies.

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.

CHATTERJI, A. (2013): "London is the Unhappiest Place to Live in Britain," *International Business Times*.

CLARK, A. E., P. FRIJTERS, AND M. A. SHIELDS (2008): "Relative income, happiness, and utility: An explanation for the easterlin paradox and other puzzles," *Journal of Economic Literature*, 46, 95–144.

DAVIES, W. (2015): *The Happiness Industry: How the Government and Big Business Sold us Well-Being*, Verso Books.

DAVIS, K. (1955): "The origin and growth of urbanization in the world," *American Journal of Sociology*, 429–437.

DIENER, E. (2009): *Well-being for public policy*, Oxford University Press, New York NY.

FERRER-I-CARBONELL, A. AND P. FRIJTERS (2004): "How Important is Methodology for the Estimates of the Determinants of Happiness?" *Economic Journal*, 114, 641–659.

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.

——— (1995): "The subcultural theory of urbanism: A twentieth-year assessment," *American Journal of Sociology*, 543–577.

FLORIDA, R. (2008): *Who's your city?*, Basic Books, New York NY.

FOWLER, J. H. AND N. A. CHRISTAKIS (2008): "Dynamic Spread of Happiness in a Large Social Network: Longitudinal Analysis Over 20 Years in the Framingham Heart Study," *British Medical Journal, Vol. 3, January 09*.

FRANK, R. (2012): *The Darwin economy: Liberty, competition, and the common good*, Princeton University Press, Princeton NJ.

FREY, B. S. AND A. STUTZER (2000): "Maximising happiness?" *German economic review*, 1, 145–167.

——— (2002): "What Can Economists Learn from Happiness Research?" *Journal of Economic Literature*, 40, 402–435.

FREY, B. S. ET AL. (2008): "Happiness: A revolution in economics," *MIT Press Books*, 1.

GERDTHAM, U.-G. AND M. JOHANNESSON (2001): "The relationship between happiness, health, and socio-economic factors: results based on Swedish microdata," *The Journal of Socio-Economics*, 30, 553–557.

GLAESER, E. (2011): *Triumph of the City: How Our Greatest Invention Makes Us Richer, Smarter, Greener, Healthier, and Happier*, Penguin Press, New York NY.

GLAESER, E. L., J. D. GOTTLIEB, AND O. ZIV (2016): "Unhappy Cities," *Journal of Labor Economics*, 34, S129–S182.

GURIN, G., J. VEROFF, AND S. FELD (1960): *Americans view their mental health: A nationwide interview survey.*, Basic Books, New York NY.

HAIDT, J. (2012): *The righteous mind: Why good people are divided by politics and religion*, Vintage.

HIRSCHAUER, N., M. LEHBERGER, AND O. MUSSHOFF (2015): "Happiness and Utility in Economic Thought–Or: What Can We Learn from Happiness Research for Public Policy Analysis and Public Policy Making?" *Social Indicators Research*, 121, 647–674.

HOOGERBRUGGE, M. AND M. BURGER (2021): "Selective Migration and Urban-Rural Differences in Subjective Well-being: Evidence from the United Kingdom'," *Urban Studies*.

JACOBS, J. ([1961] 1993): *The death and life of great American cities*, Random House, New York NY.

KAHNEMAN, D. (1994): "New challenges to the rationality assumption," *Journal of Institutional and Theoretical Economics*, 150, 18–36.

——— (2000): "Experienced Utility and Objective Happiness: A Moment-Based Approach," in *Choices, Values and Frames*, ed. by D. Kahneman and A. Tversky, Cambridge University Press and the Russell Sage Foundation, New York NY.

KAHNEMAN, D. AND A. B. KRUEGER (2006): "Developments in the measurement of subjective well-being," *Journal of Economic Perspectives*, 22, 3–24.

KAHNEMAN, D. AND R. THALER (1991): "Economic analysis and the psychology of utility: applications to compensation policy," *The American Economic Review*, 81, 341–346.

KAHNEMAN, D. AND R. H. THALER (2006): "Anomalies: Utility maximization and experienced utility," *The Journal of Economic Perspectives*, 20, 221–234.

KAHNEMAN, D., P. P. WAKKER, AND R. SARIN (1997): "Back to Bentham? Explorations of Experienced Utility," *The Quarterly Journal of Economics*, 112, 375–405.

KENNY, A. (2011): *Life, Liberty and the pursuit of utility: happiness in philosophical and economic thought*, vol. 7, Andrews UK Limited.

KIMBALL, M. AND R. WILLIS (2006): "Utility and happiness," *University of Michigan*, 1–67.

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.

LENZI, C. AND G. PERUCCA (2016): "The Easterlin paradox and the urban-rural divide in life satisfaction: Evidence from Romania," *Unpublished; http://www.grupposervizioambiente.it*.

——— (2021): "Not too close, not too far: Urbanisation and life satisfaction along the urban hierarchy," *Urban Studies*, 58, 2742–2757.

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.

LUTTMER, E. F. P. (2005): "Neighbors as Negatives: Relative Earnings and Well-Being," *Quarterly Journal of Economics*, 120, 963–02.

LYKKEN, D. AND A. TELLEGEN (1996): "Happiness is a Stochastic Phenomenon," *Psychological Science*, 7, 186–189.

MARYANSKI, A. AND J. H. TURNER (1992): *The social cage: Human nature and the evolution of society*, Stanford University Press.

MASLOW, A. ([1954] 1987): *Motivation and personality*, Longman, 3 ed.

MCPHERSON, M., L. SMITH-LOVIN, AND J. M. COOK (2001): "Birds of a feather: Homophily in social networks," *Annual Review of Sociology*, 415–444.

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.

MICHALOS, A. C. (2014): "An Interview with Alex C. Michalos," *International journal of wellbeing*, 106–110.

MILGRAM, S. (1970): "The experience of living in cities," *Science*, 167, 1461–1468.

MOLOTCH, H. (1976): "The city as a growth machine: Toward a political economy of place," *American journal of sociology*, 82, 309–332.

MORRISON, P. (2015): "Capturing effects of cities on subjective wellbeing," *European Regional Science Association Conference, Lisbon.*

MORRISON, P. S. AND M. WECKROTH (2017): "Human values, subjective well-being and the metropolitan region," *Regional Studies*, 1–13.

NG, Y.-K. (1996): "Happiness surveys: Some comparability issues and an exploratory survey based on just perceivable increments," *Social Indicators Research*, 38, 1–27.

——— (1997): "A case for happiness, cardinalism, and interpersonal comparability," *The Economic Journal*, 107, 1848–1858.

——— (2011): "Happiness is absolute, universal, ultimate, unidimensional, cardinally measurable and interpersonally comparable: A basis for the environmentally responsible Happy Nation Index," Tech. rep., Monash University, Department of Economics.

OFFICE FOR NATIONAL STATISTICS (2011): "Analysis of Experimental Subjective Well-being Data from the Annual Population Survey," *The National Archives.*

OKULICZ-KOZARYN, A. (2015): *Happiness and Place. Why Life is Better Outside of the City.*, Palgrave Macmillan, New York NY.

——— (2016): "Unhappy metropolis (when American city is too big)," *Cities.*

OKULICZ-KOZARYN, A. AND R. R. VALENTE (2017): "The Unconscious Size Fetish: Glorification and Desire of the City," in *Psychoanalysis and the GlObal*, ed. by I. Kapoor, University of Nebraska Press.

——— (2018): "No Urban Malaise for Millennials," *Regional Studies.*

——— (2021): "Urban unhappiness is common," *Cities*, 103368.

O'SULLIVAN, A. (2009): *Urban economics*, McGraw-Hill.

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.

PAVOT, W. AND E. DIENER (2008): "The satisfaction with life scale and the emerging construct of life satisfaction," *The journal of positive psychology*, 3, 137–152.

PECK, J. (2016): "Economic Rationality Meets Celebrity Urbanology: Exploring Edward Glaeser's City," *International Journal of Urban and Regional Research*, 40, 1–30.

PUTNAM, R. (2007): "E pluribus unum: Diversity and community in the twenty-first century," *Scandinavian Political Studies*, 30, 137–174.

PYKETT, J., T. OSBORNE, AND B. RESCH (2020): "From urban stress to neurourbanism: how should we research city well-being?" *Annals of the American Association of Geographers*, 110, 1936–1951.

REHDANZ, K. AND D. MADDISON (2008): "Local environmental quality and life-satisfaction in Germany," *Ecological economics*, 64, 787–797.

RIDLEY, M. (2000): *Genome*, Harper and Collins.

SCHNITTKER, J. (2008): "Happiness and Success: Genes, Families, and the Psychological Effects of Socioeconomic Position and Social Support," *American Journal of Sociology*, 114, S233–S259.

SCITOVSKY, T. (1976): *The joyless economy: An inquiry into human satisfaction and consumer dissatisfaction.*, Oxford U Press, New York NY.

SENIOR, J. (2006): "Some Dark Thoughts on Happiness," *New York Magazine*.

SIMMEL, G. (1903): "The metropolis and mental life," *The Urban Sociology Reader*, 23–31.

SMELSER, N. J. AND J. C. ALEXANDER (1999): *Diversity and its discontents: cultural conflict and common ground in contemporary American society*, Princeton University Press, Princeton NJ.

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*.

STUTZER, A., B. S. FREY, ET AL. (2004): "Reported subjective well-being: A challenge for economic theory and economic policy," *Schmollers Jahrbuch*, 124, 1–41.

TAJFEL, H. (1982): "Social psychology of intergroup relations," *Annual review of psychology*, 33, 1–39.

TAJFEL, H., M. G. BILLIG, R. P. BUNDY, AND C. FLAMENT (1971): "Social categorization and intergroup behaviour," *European journal of social psychology*, 1, 149–178.

THRIFT, N. (2005): "But malice aforethought: cities and the natural history of hatred," *Transactions of the institute of British Geographers*, 30, 133–150.

TÖNNIES, F. ([1887] 2002): *Community and society*, DoverPublications.com, Mineola NY.

VAN DER DEIJL, W. (2018): "The Measurement of Wellbeing in Economics: Philosophical Explorations," *Erasmus Journal for Philosophy and Economics*, 11, 125–129.

VEENHOVEN, R. (2000): "The four qualities of life," *Journal of happiness studies*, 1, 1–39.

——— (2014): "Livability Theory," *Encyclopedia of Quality of Life and Well-Being Research*, 3645–3647.

VEENHOVEN, R. AND J. EHRHARDT (1995): "The Cross-National Pattern of Happiness: Test of Predictions Implied in Three Theories of Happiness," *Social Indicators Research*, 34, 33–68.

WARE, B. (2012): *The top five regrets of the dying: A life transformed by the dearly departing*, Hay House, Inc.

WELSH, I. (2016): "Problems with Economics: The Cult of Utility," *ianwelsh.net*.

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

WHITE, M. P., I. ALCOCK, B. W. WHEELER, AND M. H. DEPLEDGE (2013a): "Coastal proximity, health and well-being: Results from a longitudinal panel survey," *Health & Place*.

——— (2013b): "Would You Be Happier Living in a Greener Urban Area? A Fixed-Effects Analysis of Panel Data," *Psychological science*, 24, 920–928.

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

ZAFIROVSKI, M. (2014): "Rational Choice Requiem: The Decline of an Economic Paradigm and its Implications for Sociology," *The American Sociologist*, 45, 432–452.

ZAKARIA, F. (2019): "The End of Economics? Human beings are rarely rational–so it's time we all stopped pretending they are." *foreignpolicy.com*.

Supplementary Online Material (SOM)

[note: this section will NOT be a part of the final version of the manuscript, but will be available online instead]

5.2 Variables' Definitions

Table 3: Variable definitions.

name	description
swb	"Please think about your life as a whole. How satisfied are you with it? Are you completely satisfied, very satisfied, somewhat satisfied, not very satisfied, or not at all satisfied?" 1 (lo) - 5 (hi)
metro	"Metropolitan/Non-metropolitan Indicator. This indicator is derived from the 2013 Beale-Ross Rural-Urban Continuum Codes published by USDA based on matches to the FIPS state and county codes." 1 Metropolitan area (Beale-Ross Code ER775923= 1-3) 0 Non-metropolitan area (Beale-Ross Code ER775923= 4-9)
age	age
age sq	age squared
last year total family income	last year total family income
unemployed	EMPLOYMENT STATUS-1ST MENTION; We would like to know about what you do – are you working now, looking for work, retired, keeping house, a student, or what?–FIRST MENTION; 1="Looking for work, unemployed", 0 otherwhise
male	gender
health	"Now I have a few questions about your health. Would you say your health in general is excellent, very good, good, fair, or poor?" 1 (poor) to 5 (excellent)
kids	"Number of Persons Now in the FU Under 18 Years of Age"
college	"Did (you/he/she) attend college?" 1='yes', 0='no'
married	"Are you married, widowed, divorced, separated, or have you never been married?" 1='married'; 0 otherwhise
family unit size	Number of Persons in FU at the Time of the Interview
white	"What is (your/his/her) race? (Are you/Is [he/she]) white, black, American Indian, Alaska Native, Asian, Native Hawaiian or other Pacific Islander?–FIRST MENTION" 1='white', 0 otherwhise
distress	The K-6 Non-Specific Psychological Distress Scale

25

5.3 Summary statistics

```
        id:  2, 3, ..., 14365                           n =        10108
        yr:  2009, 2011, ..., 2019                      T =            6
             Delta(yr) = 1 unit
             Span(yr)  = 11 periods
             (id*yr uniquely identifies each observation)

Distribution of T_i:   min      5%     25%     50%     75%     95%     max
                         1       1       2       4       6       6       6

      Freq.  Percent    Cum. |  Pattern*
   -------------------------+---------
      3179     31.45   31.45 |  111111
       723      7.15   38.60 |  ....11
       672      6.65   45.25 |  .....1
       548      5.42   50.67 |  ...111
       505      5.00   55.67 |  ..1111
       502      4.97   60.64 |  1.....
       481      4.76   65.39 |  .11111
       480      4.75   70.14 |  111...
       450      4.45   74.59 |  11....
      2568     25.41  100.00 |  (other patterns)
   -------------------------+---------
     10108    100.00         |  XXXXXX
   -----------------------------------

 *Each column represents 2 periods.


Variable         |      Mean   Std. Dev.       Min        Max |   Observations
-----------------+--------------------------------------------+----------------
swb     overall  |  3.718723   .8759134         1          5 |   N =     37767
        between  |             .7136601         1          5 |   n =     10091
        within   |             .5603667   .5187227   6.552056 |   T-bar = 3.74264
                 |                                            |
met     overall  |  .7801749   .4141335         0          1 |   N =     37730
        between  |              .385049         0          1 |   n =     10073
        within   |             .1878218  -.0531584   1.613508 |   T-bar = 3.74566
                 |                                            |
age     overall  |  44.85923   16.82858        16         99 |   N =     37928
        between  |             17.23457        17         99 |   n =     10107
        within   |             2.911229   37.19257   51.60923 |   T-bar = 3.75265
                 |                                            |
age2    overall  |  2295.544   1698.311       256       9801 |   N =     37928
        between  |             1728.178       289       9801 |   n =     10107
        within   |             285.6776   1268.044   3368.044 |   T-bar = 3.75265
                 |                                            |
inc     overall  |  61242.84   81095.25         0    3316000 |   N =     37912
        between  |             66126.72         0    1883797 |   n =     10108
        within   |             39658.52  -937554.6    2052160 |   T-bar = 3.75069
                 |                                            |
une     overall  |  .0907629   .2872754         0          1 |   N =     37923
        between  |             .2197753         0          1 |   n =     10108
        within   |             .2116276  -.7425705   .9240962 |   T-bar = 3.75178
                 |                                            |
male    overall  |  .5491432   .4975856         0          1 |   N =     37930
        between  |             .4994373         0          1 |   n =     10108
        within   |             .0058544  -.2508568   1.049143 |   T-bar = 3.75247
```

```
            |                                         |
hea   overall |  3.436374   1.046857          1          5 |    N =    37862
      between |             .92175            1          5 |    n =    10100
       within |            .5731675    .4363742   6.603041 |  T-bar = 3.74871
            |                                         |
kid   overall |  .6846296   1.119852          0         11 |    N =    37930
      between |            1.061457           0         11 |    n =    10108
       within |            .4720193   -3.148704   5.18463 |  T-bar = 3.75247
            |                                         |
col   overall |  .6264205   .4837605          0          1 |    N =    36608
      between |            .4803487          0          1 |    n =     9674
       within |            .0744979  -.2069129  1.459754 |  T-bar = 3.78416
            |                                         |
mar   overall |  .2802942   .4491489          0          1 |    N =    37928
      between |             .412416          0          1 |    n =    10107
       within |            .1586708  -.5530391  1.113628 |  T-bar = 3.75265
            |                                         |
nFU   overall |  2.281413   1.412387          1         14 |    N =    37930
      between |            1.317328           1         13 |    n =    10108
       within |             .615575  -3.468587  8.081413 |  T-bar = 3.75247
            |                                         |
whi   overall |  .5256386   .4993489          0          1 |    N =    37697
      between |            .4985538          0          1 |    n =    10038
       within |            .0213918  -.2743614  1.192305 |  T-bar = 3.75543
            |                                         |
k     overall |  3.608904   4.151942          0         24 |    N =    37689
      between |            3.629813          0         24 |    n =    10083
       within |            2.339743  -10.05776   22.6089 |  T-bar = 3.73788
```

(obs=5.00 ,55 8.00)

	swb	met	age	age2	inc	une	male	hea	kid	col	mar
swb	1.00										
met	-0.08	1.00									
age	0.09	-0.05	1.00								
age2	0.09	-0.06	0.98	1.00							
inc	0.13	0.06	0.10	0.06	1.00						
une	-0.12	0.02	-0.19	-0.18	-0.13	1.00					
male	0.09	-0.06	-0.01	-0.03	0.29	-0.02	1.00				
hea	0.27	0.02	-0.24	-0.23	0.20	-0.01	0.15	1.00			
kid	-0.01	0.02	-0.29	-0.30	0.01	0.09	-0.10	0.05	1.00		
col	0.04	0.08	-0.08	-0.09	0.24	-0.12	0.06	0.17	-0.04	1.00	
mar	0.20	-0.06	0.17	0.14	0.43	-0.12	0.55	0.13	0.10	0.14	1.00
nFU	0.04	0.01	-0.16	-0.19	0.16	0.05	0.08	0.06	0.86	-0.03	0.35	1.
whi	0.09	-0.19	0.16	0.17	0.26	-0.16	0.26	0.12	-0.16	0.19	0.29	-0.
k	-0.37	-0.00	-0.12	-0.12	-0.17	0.12	-0.14	-0.30	0.04	-0.10	-0.18	-0.

(obs=6,294)

	swb	met	age	age2	inc	une	male	hea	kid	col	mar
swb	1.0000										
met	-0.0233	1.0000									
age	0.0701	-0.0482	1.0000								
age2	0.0704	-0.0482	0.9850	1.0000							
inc	0.1675	0.0793	0.0604	0.0308	1.0000						
une	-0.0931	0.0118	-0.1420	-0.1345	-0.1376	1.0000					

```
    male |   0.0619  -0.0174  -0.0316  -0.0407   0.2897  -0.0217   1.0000
     hea |   0.3035   0.0486  -0.1854  -0.1776   0.2135  -0.0393   0.1189   1.0000
     kid |   0.0501  -0.0036  -0.2768  -0.2929   0.0566   0.0246  -0.0676   0.0553   1.0000
     col |  -0.0072   0.1033  -0.0532  -0.0633   0.2552  -0.1330   0.0317   0.1209  -0.0449   1.0000
     mar |   0.2059  -0.0181   0.1509   0.1293   0.4559  -0.1102   0.5009   0.1282   0.1246   0.1368   1.0000
     nFU |   0.1095  -0.0064  -0.1650  -0.1919   0.2014  -0.0005   0.0708   0.0593   0.8656  -0.0266   0.3526   1.
     whi |   0.0585  -0.1388   0.1392   0.1496   0.2572  -0.1132   0.2024   0.0756  -0.0782   0.1494   0.2623  -0.
       k |  -0.3863  -0.0110  -0.1877  -0.1813  -0.1506   0.1098  -0.1076  -0.3022   0.0164  -0.0556  -0.1855  -0.
```

5.4   Panel Structure of Metro Variable

xttab met

```
                 Overall              Between          Within
       met |   Freq.   Percent     Freq.   Percent     Percent
----------+-----------------------------------------------------
  Inap.: |    8294     21.98      2947     29.26        77.39
 Metropol |   29436     78.02      8362     83.01        93.19
----------+-----------------------------------------------------
    Total |   37730    100.00     11309    112.27        89.07
                            (n = 10073)
```

xtsum met

```
Variable         |    Mean    Std. Dev.      Min       Max |  Observations
-----------------+--------------------------------------------+----------------
met     overall  |  .7801749  .4141335        0         1 |   N =    37730
        between  |            .385049         0         1 |   n =    10073
        within   |            .1878218  -.0531584  1.613508 | T-bar = 3.74566
```

5.5 Single Year And Pooled Results V FE Results

Table 4: Regressions of SWB: FE v OLS 2015

	c1-FE	c1-2015	c2-FE	c2-2015	c3-FE	c3-2015	c4-FE	c4-2015	c5-FE	c5-2015
metro	0.01	-0.11***	-0.04*	-0.12***	-0.03*	-0.10***	-0.04**	-0.09***	-0.04*	-0.08***
age			0.02***	-0.00	0.02***	-0.01**	0.01***	-0.01***	0.00	-0.01***
age sq			-0.00**	0.00**	-0.00	0.00***	-0.00	0.00***	-0.00	0.00***
last year total family income			0.00*	0.00***	0.00	0.00**	0.00	0.00*	0.00	0.00*
unemployed			-0.18***	-0.23***	-0.18***	-0.24***	-0.16***	-0.18***	-0.16***	-0.18***
male			0.27	0.08***	0.21	-0.05*	0.07	-0.06**	0.08	-0.06**
health			0.13***	0.26***	0.13***	0.26***	0.10***	0.18***	0.10***	0.18***
kids					-0.01	-0.04*	-0.01	-0.03	-0.01	-0.03
college					-0.08*	-0.12***	-0.07	-0.13***	-0.07	-0.13***
married					0.18***	0.28***	0.17***	0.24***	0.17***	0.24***
family unit size					0.04***	0.06***	0.03***	0.05***	0.03***	0.05***
distress							-0.05***	-0.06***	-0.05***	-0.06***
constant	3.71***	3.82***	2.37***	2.80***	2.45***	2.93***	2.90***	3.63***	3.60***	3.74***
state and year dummies	no	no	no	no	no	no	no	no	yes	yes
N	37567	6256	37489	6250	36285	6092	36142	6068	36142	6068

*** p<0.01, ** p<0.05, * p<0.1; robust std err (OLS)

29

Table 5: Regressions of SWB: FE v OLS Pooled 2015-2019.

	d1-FE	d1-09-19	d2-FE	d2-09-19	d3-FE	d3-09-19	d4-FE	d4-09-19	d5-FE	d5-09-19
metro	0.01	-0.08***	-0.04*	-0.09***	-0.03*	-0.07***	-0.04**	-0.08***	-0.04*	-0.08***
age			0.02***	-0.00	0.02***	-0.01***	0.01***	-0.01***	0.00	-0.01***
age sq			-0.00**	0.00***	-0.00	0.00***	-0.00	0.00***	-0.00	0.00***
last year total family income			0.00*	0.00***	0.00	0.00***	0.00	0.00***	0.00	0.00***
unemployed			-0.18***	-0.25***	-0.18***	-0.25***	-0.16***	-0.20***	-0.16***	-0.20***
male			0.27	0.05***	0.21	-0.08***	0.07	-0.11***	0.08	-0.10***
health			0.13***	0.25***	0.13***	0.25***	0.10***	0.17***	0.10***	0.17***
kids					-0.01	-0.03***	-0.01	-0.02***	-0.01	-0.02***
college					-0.08*	-0.10***	-0.07	-0.11***	-0.07	-0.11***
married					0.18***	0.29***	0.17***	0.26***	0.17***	0.26***
family unit size					0.04***	0.04***	0.03***	0.04***	0.03***	0.04***
distress							-0.05***	-0.06***	-0.05***	-0.06***
constant	3.71***	3.78***	2.37***	2.77***	2.45***	2.91***	2.90***	3.60***	3.60***	3.66***
state and year dummies	no	no	no	no	no	no	no	no	yes	yes
N	37567	37567	37489	37489	36285	36285	36142	36142	36142	36142

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

p<0.1; robust std err (OLS)

5.6 Random Effects

Table 6: RE regressions of SWB.

	b1	b2	b3	b4	b5
metro	-0.04***	-0.05***	-0.04***	-0.05***	-0.06***
age		0.00	-0.01***	-0.01***	-0.01***
age sq		0.00***	0.00***	0.00***	0.00***
last year total family income		0.00***	0.00***	0.00***	0.00***
unemployed		-0.22***	-0.22***	-0.19***	-0.19***
male		0.07***	-0.05***	-0.08***	-0.08***
health		0.19***	0.19***	0.14***	0.14***
kids			-0.02**	-0.02**	-0.02**
college			-0.06***	-0.08***	-0.08***
married			0.27***	0.24***	0.25***
family unit size			0.04***	0.04***	0.04***
distress				-0.05***	-0.05***
constant	3.74***	2.92***	3.03***	3.59***	3.68***
state and year dummies	no	no	no	no	yes
N	37567	37489	36285	36142	36142

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

5.7 ~~Limitations and Future Research~~

~~Future research can improve in a number of ways. Metro-nonmetro binary measure of urbanicity is limited—urbanicity is a gradient (Berry and Okulicz-Kozaryn 2011), not a dichotomy. Future research could use finer classification than binary metro-nonmetro. We have only had 6 waves of data, as more waves become available, future research can arrive at more robust results. It will be also possible to estimate SWB from moving across urbanicity.~~