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Urbanization, Poverty, and Subjective Well-being: Empirical Evidence from Thailand

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Introduction

In recent decades, urbanization has grown rapidly. According to *World Urbanization Prospects: the 2009 Revision*, the global number of those living in urban areas surpassed the number of those in rural areas for the first time in 2009 (United Nations 2010). There were about 3.42 and 3.41 billion people living in urban and rural areas in the world, respectively. This urbanization rate is continually rising. Developed and developing countries respectively have an average of 53 percent and 50 percent of residents living in urban areas. Their number of megacities will increase from 21 in 2009 to 29 in 2025. In 2009, Asia had 17 out of these 21 megacities. The three biggest ones: Tokyo, Delhi, and Mumbai, were also all found in Asia.

Thailand's urbanization rate is relatively low at 31 percent compared to those of neighboring countries such as Indonesia (53%) and Malaysia (71%). Urban residents in Bangkok face problems of high pollution, traffic congestion, sanitation issues, limited public utility access, and illegal drugs. According to Suthiwart-narueput (2011), urbanization in Thailand has been slow, increasing by only 0.8 percent, as compared to Indonesia's 8 percent and Malaysia's 7 percent in 1999-2009. This is because the costs of urbanization in Thailand are relatively high due to these negative externalities from high population density.

There is a consensus among economists and policymakers that urbanization generates negative externality. It generates pollution, crime, and congestion in the urban areas. To say, however, that urbanization adversely affects health and mental conditions of urban residents remains

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inconclusive since urbanization also carries positive externalities. For example, there is the access to better medical care, developed infrastructure, and mature facilities,[2] which should therefore enhance the health condition and boost the happiness level of urban dwellers. In this paper, the impacts of urbanization will be investigated and empirically tested not only on mental and physical health, but also in terms of life-satisfaction and happiness levels of the population.

Factors Related to Happiness

Researchers in various fields have attempted to understand "intrinsic value of happiness" and "the sources of happiness." Some attempt to find how different socioeconomic or demographic factors relate to happiness. Others use happiness as a measure of net effects of an economic policy, which has both costs and benefits, on the overall society (Frey and Stutzer 2003). Recently, research on happiness was linked to sociology and economics on a larger scale, especially on the determinants of happiness. In general, the study on the determinants of happiness can be from either a macroeconomic or microeconomic perspective.

In macroeconomic studies, researchers attempt to find the effects of socio-economic performance (e.g., average income, employment rate, and pollution) on happiness. Even though the average income and consumption figures of the world population have increased, various indicators suggest that the happiness of the world population has not significantly changed. Some studies even found that people's unhappiness increased, and that the increase in happiness can come from factors other than those determining economic growth.

Analysts explain that people who live in developed countries relatively do not have their values attached to nature, are money-oriented, and have low life satisfaction. However, they have better health, which results in higher longevity. They receive more and higher quality social welfare, which offsets the effects of environmental destruction on happiness. In general, economic studies find that happiness comes from living in a good environment and a good society, where

[2] According to Suthiwart-narueput (2011), Thai urban residents had on average twice the income of rural residents. Urban residents are 100 percent more likely to own a private car and 50 percent more likely to own an air-conditioner, a microwave, and a computer.

people are considerate and kind. Other studies, such as those of Esterlin (1974) and Leigh and Wolfers (2006), investigate the relationship of happiness, human development, and economic factors using macroeconomic indicators.

In microeconomic studies, microeconomic data are used to explain the relationship between various variables and happiness at the individual level. Findings on wealth and income often contradicts finding from macroeconomic studies mentioned earlier. Income is found to have a positive effect on happiness. Poorer people have fewer opportunities to consume the goods that create happiness and usually have limited access to social welfare. Micro-level data also reveal that the level of happiness decreases when the person is unemployed, receiving less income, and living in an urban area (Gerdtham and Johannesson 1997; and Easterlin 2001). On the other hand, the level of happiness is higher among persons who are married, with higher education and with better health (Frey and Stutzer 2003; Frey and Stutzer 2004; and Gerdtham and Johannesson 1997). Other studies find that the relationship between age and happiness is U-Shaped, where the lowest happiness level is at their middle ages.

This paper focuses on micro-level analyses. Using socio-economic individual factors, this paper attempts to investigate the impact of social context in terms of livelihood on urban-rural differential in happiness and other measures of subjective well-being. Data used in the analysis are obtained from a national psychological survey on Thais. This paper investigates how people living in urban area are different from those living in rural area in terms of mental and physical well-being.

In addition, the paper attempts to uncover if the difference in these mental and physical well-being measures come from positive and negative externalities of urbanization other than the differences in socioeconomic factors between the urban and rural areas. Thus, various measures of attributes to well-being will also be tested to investigate the positive and negative externalities of urbanization on mental and physical well-being.

Subjective Well-Being and Measures of Happiness

Subjective well-being has been measured using various indicators. These indicators include happiness scores and degrees of overall life satisfaction. Stutzer and Frey (2006) explain that subjective well-being is a scientific term used to measure an individual's happiness or life satisfaction, which is the evaluation of his or her experienced positive and negative affects. Single or multiple questions are used to obtain indicators of an individual's happiness or life satisfaction. The score, indicated by the respondent, represents a cognitive assessment of one's overall quality of life (Weenhoven 1993). Frey and Stutzer (2002) offer their interpretation of subjective well-being as "an attitude consisting of the two basic aspects of cognition and affect. "Affect" is the label attached to moods and emotions. Affect reflects people's instant evaluation of events that occur in their lives. The cognitive component refers to the rational or intellectual aspects of subjective well-being. It is usually assessed with measures of satisfaction." The measures of subjective well-being can serve as proxies for "utility" since "people evaluate their level of subjective well-being with regard to circumstances and comparisons to other persons, past experience, and expectation of the future".

Still according to Frey and Stutzer's review, a "subjective approach to utility offers a fruitful complementary path to study the world. Firstly, subjective well-being is a much broader concept than decision utility; it includes experienced utility as well as procedural utility, and is for many people an ultimate goal. Secondly, the concept of subjective happiness allows us to capture human well-being directly."

There have been discussions on the comparability of subjective well-being across individuals in various literatures on the determinants of happiness. Ferrer-i-Carbonell and Frijters (2004) offer an extensive review of the main assumptions that have been used in the interpretation of life satisfaction scores. There are three main assumptions:

1) General satisfaction can be used as a proxy for welfare if emotional expressions and choice behavior are truly related to the underlying metaphysical concept of welfare and that general satisfaction is a positive monotonic transformation of an underlying metaphysical concept called welfare;

2) General satisfaction is interpersonally, ordinally comparable. This implies that individuals share a common opinion of what happiness is. This assumption relies on supporting evidence from two psychological findings: (a) Individuals are somewhat able to recognize and predict the satisfaction level of others[3]; and (b) Individuals in the same language community have a common understanding of how to translate internal feelings into a number scale;[4]

3) General satisfaction is interpersonally, cardinally comparable.[5]

Moreover, Ferrer-i-Carbonell and Frijters (2004) find that assuming ordinality or cardinality of happiness scores makes little difference in their estimations of happiness whereas allowing for fixed-effects does change results substantially. They suggest that more research should be carried out into the determinants of the personality traits making up these effects of time-invariant factors. Easterlin (2001) also offers an explanation as to why happiness or life satisfaction scores can be compared across individuals.[6] In addition, Frey and Stutzer (2000) offer a lot of indirect evidence that cardinalism and interpersonal comparability are much less of a problem practically and that the measure of subjective well-being has high consistency, reliability, and validity.[7]

[3] In interviews where respondents were shown pictures or videos of other individuals, they were somewhat accurate in identifying whether the individual shown to them was happy, sad, jealous, etc. (Sandvik et al. 1998; Diener and Lucas 1999).This also holds true when respondents were asked to predict the evaluations of individuals from other cultural communities.

[4] Respondents have been found to translate verbal labels such as "very good" and "very bad" into roughly the same numerical values (Van Praag 1991).The empirical analysis of GS under the ordinal comparability assumption makes use of latent variable models, such as ordered probit and logit.

[5] This assumes that the difference between a satisfaction answer of, say, an 8 and a 9, is the same as the difference between a 4 and a 5 (NG, 1996;1997).When GS is assumed to be a cardinal measure of welfare, the empirical analysis is often realized by means of OLS or similar methods.

[6] In his view, "although each individual is free to define happiness in his or her own terms, in practice, the kinds of things chiefly cited as shaping happiness are for most people much the same– probably because most people everywhere spend most of their lives doing the same types of things. So, if one is concerned with comparing the subjective well-being of sizable groups of people, such as social classes, this similarity in feelings about the sources of happiness gives credence to such comparison."

[7] Some empirical evidence would be, for example, that happy people are more often smiling during social interactions (Fernandez-Dols &Ruiz-Bed 1995). Happy people are rated as happy by friends and family members (Sandvik et al. 1993) as well as by spouses (Costa and McCrae 1988). Furthermore, according to Frey and Stutzer (2000), there is evidence that the measure of subjective well-being has a high degree of stability over time (Headey &Wearing 1989) and are not systematically biased with regard to social desirability (Konow and Earley 1999).

Urban/Rural Social Context of Well-being

This paper focuses on the community's effects on well-being with regard to the urban-rural differential. Frey and Stutzer (2000) propose three main determinants of happiness: (1) Personality and demographic factors; (2) Micro- and macroeconomic factors; and (3) Institutional conditions in an economy and society. Diener et al. (1999) report that a happy person is likely to be "young, healthy, well-educated, well-paid, extroverted, optimistic, worry-free, religious, and married with high self-esteem and modest aspirations." Nevertheless, Heliwell and Putnam (2004) conclude from their review that subjective well-being is best predicted by the breadth and depth of individuals' social connection. Specifically, "people who have close friends and confidants, friendly neighbors and supportive coworkers are less likely to experience sadness, loneliness, low self-esteem, and problems with eating and sleeping."

Urban settings are more stressful with its high crime rates, high competition, substandard housing, sanitation problems, higher congestion, and higher pollution. On the other hand, in rural settings, its people receive less income and are exposed to fewer infrastructure developments and material convenience. Given this common knowledge of possible negative and positive externalities of urban settings, one can expect to observe a difference in the well-being of people living in urban and rural area due to contextual settings. Shields et al. (2007) find that neighborhood measures of social support and interaction and the absence of socio-economic deprivation are positively and significantly correlated with life satisfaction.

A number of studies also suggest that poverty has negative consequences on well-being and quality of life. The poor are more likely to be exposed to unemployment, crime, victimization, stressful life events, and illnesses. They are also likely to live with chronic strains (such as job dissatisfaction and frustrated aspirations), which may lead to lower self esteem and lower sense of control over life (Amato and Zuo 1992). Because the poor usually lack economic resources to maintain their social activities, they have less contact with friends and family, and less involvement in their community (Amato and Zuo 1992). Reviews on the relationship between socio-economic status and psychological well-being reveal a connection between low socio-economic status and high rate of depression, mental illness, and lower psychological well-being (Dohrenwend and Dohrenwend 1974; Haring, Stock, and Okun 1984).

On the effects of poverty on well-being, Amato and Zou (1992) propose that even though a negative association between poverty and psychological well-being has been consistently estimated, the effects of poverty can be different in various settings. They state that the subjective well-being of the urban poor and the rural poor may different due to four main positions:

1) Compared to rural poverty, urban poverty is more detrimental to one's psychological well-being. The urban poor often clusters in congested neighborhood with substandard housing, high crime rates, excessive noise level, and inadequate services. In addition, social networks may be more supportive in rural areas compared to urban areas. Rural networks are denser, more kin-based, and more connected to religious institutions.
2) Rural poverty is more debilitating than urban poverty because of attitudes toward the poor are different in urban and rural communities. According to Amato and Zou's review, the stigma of poverty is greater in rural areas than in large cities. The rural poor sees poverty as shameful and may develop a sense of failure and inadequacy. In addition, rural poor individuals are usually isolated from peers due to a diffused and large geographical area. The rural poor are therefore less likely to build a sense of common fate and positive self-image.
3) Observed differences in the well-being of the urban poor and the rural poor may not be due to the characteristics of urban-rural setting themselves, but due to differences in the two populations in terms of ethnicity, age, family status, and other demographic characteristics.
4) Rural and urban poverty are not related to psychological well-being overall. According to this position, race and family structure may serve as moderators of urban/rural poverty differences.

Thus, this paper aims to test:

1) Urban-rural differentials in various measures of well-being in Thailand;
2) Urban-rural difference in various attributes to well-being;
3) The effects of social context on various well-being measures controlling for socio-demographic factors at individual levels;

4) The differences in the well-being of the urban poor and the rural poor.

The Data

Data are obtained from the Development and Testing of Thai Mental Health Indicator (TMHI) Version 2007 by Apichai et al. (2007). Intended to develop a new Thai mental health indicator, the development and testing phase was divided into two stages. The first stage involved a validity study of the interview questions. In the second stage, a survey was carried out using a multi-stage random sampling of the Thai population. Using the Systematic Random Sampling Method, the survey obtained information from only one individual per household who was aged 15 to 60 years and who had resided in the designated area for at least one year. As a result, 3,184 representative samples of Thai individuals were selected and divided according to region, area of residence (urban/rural), and economic status (level 1, 2, or 3). Samples came from 15 provinces in five regions. Various mental health indicators in the TMHI were extensively studied with a focus on validating the compatibility of both the shorter and longer versions of the questionnaires.

The results from the validity and reliability tests of the questions gave a full version of 55 questions and a short version of 15 questions. Both versions contained four domains (mental state, mental capacity, mental quality, and supporting factors). The long version featured 15 sub-domains, where information on various aspects of mental health was obtained. Respondents were asked to answer what most accurately reflected their response to the statement in the question.[8] Using various validity tests and score comparisons, both long and short versions of the

[8] Each answer included four choices:

Never = You have never been in the situation, never felt the symptoms, never had the feelings, or completely disagree with the statement;

Rarely = You have rarely been in the situation, rarely felt the symptoms, rarely had the feelings, or agreed with the statement a little;

Frequently = You have frequently been in the situation, frequently felt the symptoms, frequently had the feelings, or agreed with the statement a lot;

TMHI were assessed and reported to be reliable instruments for assessing the mental health of the Thai population.

Data on socio-demographic, socio-economic, and physical health backgrounds of respondents were collected using a limited set of questions. This paper examines life satisfaction and happiness level (1-10) as measures of subjective well-being, as well as mental health scores and whether the person had ”illness in the past month” as measures of mental and physical well-being. Thus, respondents were asked if they were satisfied with their life on a four-point answer scale. In addition, respondents were asked to report their happiness level (1-10).

In terms of the mental health, a cutoff mental score, which is 157 (out of a total score of 220), for the Thai population is obtained from Apichai et al. (2007). Here, anything equal or lesser than 157 is considered as a “below-average” mental health.

Although “living in an urban area” can be defined in various ways, this paper takes the term to mean as living in a municipal area. This is due to data limitation as the TMHI defines “living in an urban area” as the same as “living in a municipal area”. The survey methodology to identify urban-rural setting here is similar to that done by the National Statistical Office of Thailand for other surveys. Furthermore, the same definition of urban areas was used in the shorter version of the THMI, which was incorporated in the National Thailand’s Socio-economic Surveys later on for consistency.

In Thailand, a district in a city that is the location of the city hall or an area with 10,000 residents or more is called a *municipal area*. In a municipal area, all local government administrative arrangements are governed by a government authority called the *municipal authority*. People outside this municipal authority are usually referred to as *rural residents*. The administrative authority that divides areas into municipal areas and non-municipal areas is valid in this paper’s

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Always = You have always been in the situations, always felt the symptoms, always had the feelings, or completely agree with the statement).

analytical context to study urban-rural differences because the budgets for infrastructure and other local arrangements are of different sources and usage in municipal versus non-municipal areas.

Data used to identify whether an individual is ”poor” are obtained from the Office of National Economic and Social Development Board (NESDB), the central planning agency that develops and monitors national development plans in Thailand. According to the NESDB, the poverty lines in 2007 in urban and rural areas are 1,705 baht and 1,333 baht, respectively. This paper uses urban-rural definition based on the administrative classification by which the data are collected. Municipal areas are defined as *urban* areas while non-municipal areas are considered as *rural* areas. This type of classification reflects potential differences in urban-rural settings that are consequences of different socio-economic status through different community arrangements. This classification is also consistent with the classification used by the NESDB for calculating poverty lines.

Methodology and Empirical Specifications

This paper first aims to provide some descriptive analysis on differences in various measures of well-being of people living in urban and rural areas. The T-test for the equality of the means is used to test the significance of urban-rural differential in five measures of well-being:

(1) The proportion of people who were satisfied with life;

(2) The average mental score;

(3) The proportion of people with below-average mental score;

(4) The average happiness level; and

(5) The proportion of people who had experienced illness in the past month.

T-test is also used to test for contextual differences in social and individual attributes related to urban versus rural settings. To test whether interpersonal resource, social interaction, and support are different in urban and rural areas, three measures are tested for urban-rural differential. The measures are whether

(1) One has friends or others in the community who can help when needed;

(2) One feels secure and safe to live in this community; and

(3) When one needs help, some agency (e.g., organization, club, association, temple) in the community will extend help.

To test for urban-rural differential in the inadequacy of services in the hypothesis, this study is able to test for only the adequacy of health services due to data limitations. Two aspects are measured in this regard: First, whether there is a health facility near one's house that one can utilize; and second, whether the health facility near one's house can give the services when needed.

To test for differences in an individual's sense of failure, inadequacy, and feeling of isolation, five measures are used: (1) Good relationship with one's neighbors: (2) Feeling of disappointed in yourself; (3) One's perception about one's actual social status vis-a-vis the aspiration; (4) Pride in oneself; and (5) One's opinion of value to the family.

Second, to investigate whether the differential in urban-rural well-being is due to the difference in the two populations rather than urban-versus-rural differences, this study quantifies the impact of urbanization on mental and physical well-being using a series of econometric models. Given that subjective well-being is a valid measure for mental well-being and is cardinally measurable and interpersonally comparable, one can model well-being using a baseline econometric model:

$$W_i = \alpha + \beta X_i + \gamma_1 Urban_i + \varepsilon_i$$

Where W_i is life satisfaction, happiness level, mental score, and illness in the past month; and X_i is a set of known socio-demographic and individual-level socio-economic characteristics of individual i. The observed characteristics included in the estimates are age, gender, marital status, religion, region of residence, education, and income. The dummy variable "urban" is used to capture the effects of institutional and social constraints of urbanization on the outcomes.

ε_{it} is the error term that contains measurement errors, as well as unobserved characteristics. The study assumes mistakes in people's answers are random and thus do not bias the estimation results. Life satisfaction and illness in the past month are estimated using Probit models to

obtain marginal effects of the determinants, while happiness level and mental health score are estimated using Ordinary Least Squares. The scores from the answer to 55 questions are translated into a "mental score" using the procedure recommended by Mongkol et al. (2007).

In addition, the problem of endogeneity can be present if the determinant of life satisfaction, happiness, mental, and physical health are simultaneously identified with independent variables in the model. In this study's case, this obvious variable is income. One can argue that the level of income determines the level of physical and mental well-being, while income is also affected by physical and mental well-being. If there would be simultaneity in the model, the results from simple Probit and OLS estimations would not be valid. Thus, another estimation is added to incorporate instrumenting income in the model. To be considered good instrumental variables (IV) in this case, these instruments should relate well to income and should not affect the subjective well-being directly. The average income of individuals in different areas and occupations is used as the exclusion restriction. Samples come from 30 areas and nine occupations.

Finally, due to the four main positions proposed by Amato and Zou (1992), the effects of poverty on well-being can be different between urban areas and rural areas. This study thus tests for the urban/rural differential effects of poverty by adding a dummy variable, poor, indicating whether an individual's income falls below poverty line as well as an urban-poverty interaction term into the baseline model, to allow for the effects of poverty to depend on urban/rural setting:

$$W_i = \alpha + \beta_1 X_i + \gamma_1 Urban_i + \gamma_2 Poor_i + \gamma_3 Urban_i \bullet Poor_i + \varepsilon_i$$

where γ_1 indicates overall difference in well-being between rural and urban residents, γ_2 represents overall difference in well-being between poor and non-poor individuals, and γ_3 shows difference in the effects of poverty on well-being due to urban-rural different settings.
Six empirical models are estimated for each measure of well-being. The first specification is a baseline model where well-being measures are estimated using a simple regression on the "urban" dummy variable. The second specification adds in individual socio-demographic factors to investigate whether the effects of urban setting on well-being remain as is after controlling for

these individual factors. A statistically significant effect of the urban dummy in the second specification implies that contextual difference in urban/rural settings, such as interpersonal resources and social network, matters in the determination of well-being.

The third specification includes income as another explanatory variable to control for economic and social status of the individual at both individual and community levels. The forth specification estimates well-being treating income as an endogenous variable. The fifth specification estimates well-being measures using below-poverty income (poor) instead of income to capture the effects of poverty on well-being. The sixth specification adds the urban poor dummy interaction to test for the difference in the effects of being poor on well-being in different urban/rural contexts.

Estimation Results

Table 1 summarizes statistics on the data from the THMI. Of the 3,184total observed individuals ages 15-60 years old, 52.1 percent are females. About 59 percent of these have primary education, but only 13.6 percent have diploma and tertiary education. The proportions of samples in the 15-30, 31-40, 41-50, and 51-60 age groups are approximately a quarter each. Furthermore, 71.3 percent are married and live with their spouses while 17.2 percent are single. In terms of their religious affiliations, 95.4 percent are Buddhists, with Muslims and Christians as the two minority religious groups. The study was taken from all five regions of Thailand, where the Northeasterners account for the highest proportion of the total sample and about 26.2 percent are from urban areas. This descriptive statistics well resembles the profile of the Thais ages 15-60 years.

Table 1: Observations Classified by Socio-Economic Factors.

Socio-Economic Factors	Number of Observations	Percent
Gender (n = 3,182)		
Female	1,659	52.14
Male	1,523	47.86
Education Level (n=3,180)		
Primary Level	1,881	59.15
Lower-Secondary Level	455	14.31
Higher-Secondary Level	413	12.99
Diploma Level	186	5.85
Tertiary Level	245	7.7
Age (n=3,184)		
15-20 Years Old	172	5.4
21-30 Years Old	422	13.25
31-40 Years Old	779	24.47
41-50 Years Old	954	29.96
51-60 Years Old	857	26.92
Marital Status (n=3,181)		
Single	547	17.2
Married and live together	2,267	71.27
Married but do not live together	82	2.58
Divorced	111	3.49
Widowed	174	5.47
Religion (n=3,109)		

Buddhist	2,966	95.4
Muslim	123	3.96
Christian	20	0.64
Region (n=3,184)		
Bangkok and Vicinity	413	12.97
Central	735	23.08
North	582	18.28
Northeast	1,023	32.13
South	431	13.54
Rural–Urban Area (n=3184)		
Rural	2,351	73.84
Urban	833	26.16

Table 2 shows the measures of interest in the urban-rural differentials of well-being; namely, the proportion of people satisfied with life, the average mental score, the proportion of people with below-average mental score, the average happiness level, and the proportion of people who had experienced illnesses in the past month. T-tests are used to identify the significance of the differentials. Data show that about three out of four Thais are satisfied with life. There is a statistically significant finding that those in urban areas are less satisfied with life than those in rural areas. The average mental score of urban residents is also statistically lower than those of rural residents (169.7 vs. 167.3). Moreover, the proportion of people below the average mental score in urban areas is significantly higher than that in rural areas (25.6 percent vs. 21.9 percent).

Table 2: Urban-rural Differences in Well-being Measures.

Well-being Attributes	**All Sample**			**Poor**		
	Rural	Urban	Difference P-Value	Rural	Urban	Difference P-Value
Proportion of People Satisfied with Life	78.8	73.0	0.0005*	73.1	68.2	0.4028
Average Mental Score	169.7	167.3	0.0006*	166.1	163.8	0.3446
Proportion of People with Below- average Mental Scores	21.9	25.6	0.0325*	31.1	35.2	0.4934
Average Happiness Level (0-10)	6.2	6.1	0.2387	5.9	5.5	0.1075
Proportion of People Who Had Experienced Illness in the Past Month	26.1	31.3	0.0040*	34.9	40.9	0.3345

*statistically significant at 95 % confidence level

The average happiness level of the Thai population is about 6.1- 6.2 (out of 0-10 scale). However, both urban and rural residents do not have a statistically significant difference in their happiness scores. In terms of their physical well-being, which is measured by the incidence of illness in the past month, urban residents are prone to illnesses than those in rural areas (31.3 percent versus 26.1 percent). Overall, data suggest that urban residents have less physical and mental well-being than rural residents, but are equally happy as the rural residents.

Table 2 also tests the differences of the various well-being measures among poor residents in rural and urban areas. Compared to the non-poor in both the rural and urban areas, the poor are less satisfied with life, have lower average mental score, and experience lower happiness levels. There is also a higher proportion of the poor who had experienced some illness in the past month as well as garnered below-average mental scores. There seems to be no significant difference in these well-being measures between the urban poor and the rural poor.

Given the differences in urban-rural settings discussed earlier, social and individual attributes to mental well-being are expected to be different between residents in urban areas and those in rural settings. Table 3 shows and tests urban-rural differentials in (1) interpersonal resource, social interaction, and support[9]; (2) the inadequacy of services[10]; and (3) the sense of failure, inadequacy, and feeling of isolation[11] using T-tests. Results show that interpersonal resources, social interaction, and support are significantly lower in urban settings than in rural settings. For example, only 54.2 percent of urban residents feel that they have friends or others to help when needed (compared to 63.7% in rural areas).

In terms of adequacy of services, contrary to usual expectations, results show that health services are less available and less accessible in urban areas than in rural areas. This may be due to

[9] Three measures are (1) whether one has friends or others in the community who can help when needed; (2) one feels secure and safe to live in the community; and (3) when one needs help, some agency (e.g., organization, club, association, or temple) in the community will extend some help.
[10] Two measures are (1) whether there is a health facility near once house that one can utilize; and (2) whether the health facility near one's house can give services when needed.
[11] Fives measures are whether (1) one has good relationship with neighbors; (2) one feels disappointed with oneself; (3) One thinks one lives in a social status expected; (4) One is proud of oneself; and (5) one feels valuable to one's family.

service congestion, which may then cause inferior service quality in urban areas. Meanwhile, results of tests on the sense of failure, inadequacy, and feeling of isolation are mixed. Compared to rural residents, urban residents tend to have significantly less relationships with neighbors and feel that they do not live within the social status that they expect. However, there is a similar sentiment among those in rural and urban areas with regard their level of disappointed in themselves, pride in themselves, and their perceived value to their families.

Table 3: Urban-rural Differences in Attributes to Mental Well-being.

Attribute	Percent of All Samples			Percent of Poor Sample		
	Rural (N=2,290)	Urban (N=808)	Difference P-Value	Rural (N=193)	Urban (N=88)	Difference P-Value
You have friends or others in your community to help you when needed.	63.7	54.2	0.0000*	61.7	50	0.0667
You feel secure and safe to live in this community	85.6	75.3	0.0000*	86.5	78.4	0.0858
When you need help, some agency (e.g., organization, club, association, temple) in your community will give you some help.	93.8	91	0.0056*	89.6	85.2	0.2886
There is a health facility near your house that you can utilize.	83.4	72.2	0.0000*	86	80.7	0.2559
Health facility near your house can give you services when needed.	79.5	68.3	0.0000*	80.3	71.6	0.1048
You have a good relationship with your neighbors.	93.2	89.9	0.0019*	89.1	88.6	0.9051
You feel disappointed in yourself.	7.8	9.7	0.1002	10.9	15.9	0.238
You think you live in a social status that you expected.	65.1	60.1	0.0098*	53.4	52.9	0.9391
You are proud of yourself	90.8	89.3	0.2112	88.5	87.5	0.8027
You feel you are valuable to your family.	88.1	87.8	0.7982	80.8	88.6	0.1046

*statistically significant at 95 % confidence level

Table 3 also tests the urban-rural differentials of the above attributes among the poor. Data show that the poor have better interpersonal resource, social interaction, and support than the non-poor. Interestingly, the poor find that health facilities are more available and more accessible than did the non-poor. The poor are, however, less likely to have a good relationship with neighbors, feel more disappointed in themselves, are less likely to live within the social

status that they expect, feel less proud of themselves, and (for the rural poor) feel less valuable to their family. However, the T-tests of significant differences between the urban poor and the rural poor show that both groups are not significantly different in all the attributes tested.

Table 4-7 shows results of the multivariate estimations of life satisfaction, happiness level, mental score, and illness in the past month, respectively. Six empirical models are estimated for each measure of well-being. The first specification is a baseline model where well-being measures are estimated using a simple regression on the ”urban” dummy variable. The second specification adds in individual socio-demographic factors. The third specification includes income as another explanatory variable to control for economic and social status of the individual at both individual and community levels. The fourth specification estimates well-being by treating income as an endogenous variable. The fifth specification estimates well-being measures using below-poverty income (e.g., the poor) instead of income to capture the effects of poverty on well-being. The sixth specification adds in urban poor interaction to the fifth specification to test if the well-being of the urban poor and the rural poor are significantly different.

Urban-rural differential in life satisfaction

Table 4 estimates whether an individual is satisfied with life using Probit models. The coefficients shown are the estimated marginal effects. In all specifications, urban residents are shown to be less likely than the rural residents to be satisfied with life. Controlling for individual socio-economic factors in the second model does not significantly change the estimated urban coefficient, suggesting that social urban-rural settings have some significant effects on life satisfaction. In the third model, income has a statistically significant effect on life satisfaction, but when the endogeneity of income in model 4 is controlled, the effects of income disappear.

The result from model 4 shows that urban residents are 16 percent less likely than the rural residents to be satisfied with life. Results from model 5 and 6 show that the poor have statistically lower life satisfaction than the non-poor, but the urban poor and the rural poor are

not at all different in terms of their life satisfaction levels. The poor are about 7.3 percent less likely than the non-poor to be satisfied with life.

Table 4: Life Satisfaction (Probit and Two-step Probit: Marginal Effects).

	(1)	(2)	(3)	(4)	(5)	(6)
Urban	-0.0585***	-0.0416**	-0.0502***	-0.162***	-0.0458**	-0.0477**
	[0.0175]	[0.0183]	[0.0187]	[0.0613]	[0.0187]	[0.0198]
Income	-	-	0.001***	0.000	-	-
	-	-	[0.0001]	[0.0001]	-	-
Male	-	0.021	0.013	0.070	0.0175	0.017
	-	[0.0155]	[0.0157]	[0.0555]	[0.0157]	[0.0157]
Poor	-	-	-	-	**-0.0675****	**-0.0730****
	-	-	-	-	[0.0297]	[0.0356]
Urban Poor	-	-	-	-	-	0.015
	-	-	-	-	-	[0.0525]
Age (Reference: 15-20 Years Old)						
21-30 Years Old	-	-0.182***	-0.177***	-0.512***	-0.187***	-0.187***
	-	[0.0554]	[0.0575]	[0.162]	[0.0585]	[0.0585]
31-40 Years Old	-	-0.132***	-0.136**	-0.371**	-0.133**	-0.133**
	-	[0.0507]	[0.0531]	[0.163]	[0.0534]	[0.0534]
41-50 Years Old	-	-0.205***	-0.208***	-0.579***	-0.205***	-0.204***
	-	[0.0514]	[0.0535]	[0.165]	[0.0538]	[0.0538]
51-60 Years Old	-	-0.216***	-0.219***	-0.613***	-0.213***	-0.212***
	-	[0.0538]	[0.0561]	[0.168]	[0.0562]	[0.0563]
Marital Status (Reference: Single)						
Married and live together	-	0.0711***	0.0566**	0.256***	0.0661**	0.0664**
	-	[0.0255]	[0.0258]	[0.0888]	[0.0260]	[0.0261]
Married but do not live together	-	-0.016	-0.013	0.021	-0.00601	-0.006
	-	[0.0506]	[0.0521]	[0.177]	[0.0513]	[0.0513]
Divorced	-	0.038	0.023	0.119	0.03	0.030
	-	[0.0402]	[0.0424]	[0.159]	[0.0416]	[0.0416]
Widow	-	0.053	0.049	0.199	0.0496	0.050
	-	[0.0339]	[0.0344]	[0.137]	[0.0345]	[0.0345]
Education Level (Reference: Primary Level)						
Lower-Secondary Level	-	-0.013	-0.023	-0.024	-0.0111	-0.011
	-	[0.0237]	[0.0247]	[0.0853]	[0.0241]	[0.0241]
Higher-Secondary Level	-	0.0885***	0.0731***	0.353***	0.0890***	0.0893***
	-	[0.0207]	[0.0223]	[0.0993]	[0.0210]	[0.0210]
Diploma Level	-	0.104***	0.0785***	0.440***	0.0991***	0.0995***
	-	[0.0251]	[0.0287]	[0.141]	[0.0257]	[0.0257]
Tertiary Level	-	0.112***	0.0658**	0.502***	0.114***	0.115***

	-	[0.0221]	[0.0300]	[0.166]	[0.0223]	[0.0223]
Region (Reference: Bangkok and Vicinity)						
Central	-	0.122***	0.125***	0.453***	0.120***	0.120***
	-	[0.0202]	[0.0205]	[0.0913]	[0.0208]	[0.0208]
North	-	0.147***	0.157***	0.565***	0.148***	0.148***
	-	[0.0194]	[0.0192]	[0.105]	[0.0198]	[0.0198]
Northeast	-	0.0860***	0.0962***	0.282***	0.0849***	0.0848***
	-	[0.0224]	[0.0229]	[0.0930]	[0.0231]	[0.0231]
South	-	0.122***	0.115***	0.463***	0.117***	0.117***
	-	[0.0207]	[0.0215]	[0.102]	[0.0215]	[0.0215]
Religious (Reference: Buddhist)						
Muslim	-	-0.017	0.014	0.012	0.0044	0.004
	-	[0.0402]	[0.0395]	[0.143]	[0.0405]	[0.0405]
Christian	-	-0.169	-0.164	-0.452	-0.159	-0.159
	-	[0.112]	[0.119]	[0.316]	[0.118]	[0.118]
Constant	-	-	-	0.624***	-	-
	-	-	-	[0.167]	-	-
Observations	3,182	3,099	3,017	3,002	3017	3,017

Standard errors in brackets
*** p<0.01, ** p<0.05, p<0.1

Other control variables that have statistically significant effects on life satisfactions are age, marital status, and region. Those in the 31-40 age range tend to be the least satisfied with life, but life satisfaction increases after one reaches 40 years of age. Similarly, life satisfaction increases with educational level, where people with primary schooling have the same life satisfaction as those who with lower-secondary education, but life satisfaction increases with the educational level starting from higher secondary level. People in Bangkok and surrounding areas are the least satisfied with life compared to those in the other Thai regions. The Northerners, on the other hand, are the most satisfied with their lives. Also, people who are married and live with their spouses are more satisfied with life than those who do not. Results from the estimations show there is no difference in life satisfaction between males and females, and among people of different religious beliefs.

Urban-rural differential in happiness

Table 5 shows that urban and rural residents do not have statistically different happiness levels. Income tends to have a positive effect on happiness level even after controlling for the endogeneity of income. Being poor reduces happiness level by about 0.4 levels. Results from the last specification suggests that when the "urban poor" dummy is added to the estimation, the effects of being poor disappears, and the urban poor and the rural poor show different happiness levels at 90 percent confidence level. Here, the urban poor on average have a happiness level that is 0.5 lower than that of the rural poor.

Table 5: Happiness Level (Ordinary Least Square and Two-stage Least Square).

	(1)	(2)	(3)	(4)	(5)	(6)
Urban	-0.090	-0.028	-0.017	-0.023	0.0023	0.050
	[0.0761]	[0.0786]	[0.0792]	[0.0794]	[0.0796]	[0.0837]
Income	-	-	0.001***	0.001***	-	-
	-	-	[0.0001]	[0.0001]	-	-
Male	-	-0.049	-0.081	-0.097	-0.0585	-0.056
	-	[0.0684]	[0.0690]	[0.0703]	[0.0690]	[0.0690]
Poor	-	-	-	-	-0.365***	-0.226
	-	-	-	-	[0.121]	[0.143]
Urban Poor	-	-	-	-	-	-0.461*
	-	-	-	-	-	[0.253]
Age (Reference: 15-20 Years Old)						
21-30 Years Old	-	-0.469***	-0.436**	-0.436**	-0.502***	-0.512***
	-	[0.181]	[0.189]	[0.189]	[0.191]	[0.191]
31-40 Years Old	-	-0.672***	-0.709***	-0.733***	-0.724***	-0.736***
	-	[0.180]	[0.188]	[0.190]	[0.190]	[0.190]
41-50 Years Old	-	-0.661***	-0.700***	-0.722***	-0.702***	-0.713***
	-	[0.183]	[0.190]	[0.194]	[0.192]	[0.192]
51-60 Years Old	-	-0.605***	-0.659***	-0.682***	-0.649***	-0.664***
	-	[0.188]	[0.195]	[0.199]	[0.197]	[0.197]
Marital Status (Reference: Single)						
Married and live together	-	-	0.098	0.043	0.013	0.091
	-	-	[0.106]	[0.108]	[0.115]	[0.108]
Married but do not live together	-	-	-0.186	-0.190	-0.222	-0.148
	-	-	[0.227]	[0.233]	[0.235]	[0.233]
Divorced	-	-	-0.472**	-0.494**	-0.522**	-0.446**
	-	-	[0.203]	[0.205]	[0.208]	[0.205]

Widow	-	-	-0.290	-0.311*	-0.321*	-0.302*
	-	-	[0.180]	[0.180]	[0.181]	[0.180]
Education Level (Reference: Primary Level)						
Lower-Secondary Level	-	-	0.139	0.039	0.018	0.0975
	-	-	[0.105]	[0.107]	[0.111]	[0.106]
Higher-Secondary Level	-	-	0.374***	0.245**	0.213*	0.336***
	-	-	[0.108]	[0.110]	[0.120]	[0.109]
Diploma Level	-	-	0.446***	0.224	0.162	0.383**
	-	-	[0.147]	[0.152]	[0.170]	[0.149]
Tertiary Level	-	-	0.783***	0.460***	0.346*	0.763***
	-	-	[0.132]	[0.147]	[0.204]	[0.134]
Region (Reference: Bangkok and Vicinity)						
Central	-	-	0.674***	0.720***	0.735***	0.694***
	-	-	[0.116]	[0.119]	[0.120]	[0.119]
North	-	-	0.839***	0.942***	0.981***	0.874***
	-	-	[0.126]	[0.128]	[0.135]	[0.128]
Northeast	-	-	0.446***	0.526***	0.556***	0.474***
	-	-	[0.115]	[0.118]	[0.124]	[0.118]
South	-	-	0.902***	0.906***	0.899***	0.920***
	-	-	[0.130]	[0.132]	[0.132]	[0.132]
Religious (Reference: Buddhist)						
Muslim	-	-	-	-0.164	-0.072	-0.054
	-	-	-	[0.175]	[0.181]	[0.183]
Christian	-	-	-	-0.973**	-0.912**	-0.925**
	-	-	-	[0.414]	[0.433]	[0.434]
Constant	6.155***	5.985***	5.885***	5.877***	6.041***	6.042***
	[0.0389]	[0.189]	[0.199]	[0.200]	[0.204]	[0.204]
Observation	3,182	3,099	3,017	3,002	3017	3,017
R-Square	0.000	0.051	0.058	0.057	0.052	0.053

Standard errors in brackets
*** p<0.01, ** p<0.05, p<0.1

Other variables that have statistically significant effects on the happiness level are age, marital status, education, region, and religion. Unlike results from the life satisfaction estimation, people ages 31-40 years have the highest level of happiness while those ages 21-30 years tend to have the lowest happiness level. Married couples who live together do not have a statistically different level of happiness from those who are single or married but do not live with their spouses. However, being divorced or widowed has negative effects on their happiness.

Education has the same effect on the happiness level as on life satisfaction. People with higher education seem to be happier than those with primary or lower-secondary education only. Also, similar to the results of the life satisfaction estimation, residents of Bangkok and its vicinity have lower happiness levels than those in other Thai regions. Males and females, on average, have similar levels of happiness. Christians have lower happiness levels than the Buddhists and Muslims.

Urban-rural differential in mental scores

Table 6 shows results from the estimations of mental scores. Here, the effects of the "urban" dummy variable are present in the first specification as well as the second specification, where other socio-economic variables are controlled. However, when income is controlled, the effect of the urban dummy seems to disappear. In the fourth specification, where the endogeneity of income is taken cared of, the effects of income and urban setting both disappear. Being poor lowers mental scores by about 4.1, but note that there is not much difference in the mental scores of the poor in both urban and rural settings.

Table 6: Mental Scores (Ordinary Least Square and Two-stage Least Square).

	(1)	(2)	(3)	(4)	(5)	(6)
Urban	-2.376***	-1.430**	-1.207*	-1.157	-1.039	-0.988
	[0.688]	[0.714]	[0.720]	[0.723]	[0.719]	[0.756]
Income	-	-	0.000142***	0.000	-	-
	-	-	[0.001]	[0.000120]	-	-
Male	-	2.100***	2.024***	2.138***	2.114***	2.118***
	-	[0.618]	[0.623]	[0.636]	[0.620]	[0.621]
Poor	-	-	-	-	-4.247***	-4.103***
	-	-	-	-	[1.098]	[1.283]
Urban Poor	-	-	-	-	-	-0.504
	-	-	-	-	-	[2.328]
Age (Reference: 15-20 Years Old)						
21-30 Years Old	-	-2.545	-2.024	-1.917	-2.960*	-2.971*
	-	[1.642]	[1.706]	[1.714]	[1.725]	[1.726]
31-40 Years Old	-	-1.883	-1.806	-1.382	-2.461	-2.473
	-	[1.634]	[1.701]	[1.737]	[1.716]	[1.717]

41-50 Years Old	-	-0.199	-0.317	0.160	-0.913	-0.927
	-	[1.661]	[1.728]	[1.775]	[1.741]	[1.742]
51-60 Years Old	-	-1.068	-1.354	-0.898	-1.769	-1.787
	-	[1.707]	[1.773]	[1.817]	[1.778]	[1.781]
Marital Status (Reference: Single)						
Married and live together	-	2.495**	2.279**	2.601**	2.322**	2.316**
	-	[0.970]	[0.988]	[1.048]	[0.982]	[0.982]
Married but do not live together	-	-0.164	-0.834	-0.526	-0.798	-0.800
	-	[2.063]	[2.084]	[2.114]	[2.080]	[2.080]
Divorced	-	-1.274	-1.457	-1.250	-1.297	-1.295
	-	[1.825]	[1.838]	[1.866]	[1.834]	[1.834]
Widow	-	-0.355	-0.345	-0.288	-0.403	-0.401
	-	[1.635]	[1.637]	[1.650]	[1.635]	[1.636]
Education Level (Reference: Primary Level)						
Lower-Secondary Level	-	-0.042	-0.131	0.152	0.129	0.119
	-	[0.953]	[0.969]	[1.011]	[0.961]	[0.963]
Higher-Secondary Level	-	3.884***	3.116***	3.602***	3.512***	3.502***
	-	[0.972]	[0.996]	[1.089]	[0.977]	[0.979]
Diploma Level	-	2.305*	1.181	2.029	1.907	1.892
	-	[1.344]	[1.384]	[1.567]	[1.347]	[1.349]
Tertiary Level	-	6.424***	4.625***	6.188***	6.054***	6.044***
	-	[1.175]	[1.320]	[1.876]	[1.189]	[1.190]
Region (Reference: Bangkok and Vicinity)						
Central	-	-	7.722***	8.280***	8.062***	8.180***
	-	-	[1.077]	[1.095]	[1.114]	[1.091]
North	-	-	9.189***	10.00***	9.504***	9.783***
	-	-	[1.154]	[1.178]	[1.254]	[1.166]
Northeast	-	-	7.705***	8.513***	8.087***	8.408***
	-	-	[1.068]	[1.094]	[1.160]	[1.086]
South	-	-	8.897***	8.981***	9.055***	9.042***
	-	-	[1.187]	[1.204]	[1.210]	[1.203]
Religious (Reference: Buddhist)						
Muslim	-	-	1.094	1.736	1.449	1.561
	-	-	[1.605]	[1.677]	[1.700]	[1.672]
Christian	-	-	-1.894	-1.649	-1.511	-1.625
	-	-	[3.600]	[3.766]	[3.779]	[3.761]
Constant	-	169.7***	159.5***	158.5***	158.7***	160.2***
	-	[0.350]	[1.715]	[1.797]	[1.807]	[1.836]
Observations	2,945	2,864	2,795	2,782	2795	2,795
R-squared	0.004	0.054	0.057	0.054	0.059	0.059

Standard errors in brackets

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

Other factors that have statistically significant effects on mental scores are gender, marital status, education, and region. Males tend to have about 2.1 mental scores higher than females. Similar to the results of the life satisfaction estimation, people who are married and live together have higher mental scores than those with other marital status. People with tertiary education have about 6.0 mental scores higher than those with primary education only. Bangkok residents have the lowest mental score compared to residents in other Thai regions. Again, people from the North on average have the highest mental scores. Meanwhile, age and religion have no effect on mental scores.

Urban-rural differential on illness

Table 7 shows result from the estimations on the occurrence of illnesses in the past month. From the baseline model, one can observe the statistically significant effects of urban setting on illness, but when other socio-economics factors are controlled for, the effects of urban setting disappear in all other specifications, suggesting that the urban setting has no significant effects on the occurrence of illnesses. In the third specification where income is added to the estimation, income tends to lower the likelihood of being ill even after controlling for the endogeneity of income in the fourth specification. Just like in the results found in life satisfaction estimations, being poor impacts the likelihood of illness, regardless of whether one lives in the urban areas or the rural sites.

Table 7: Occurrence of Illness in the Past Month (Probit and Two-step Probit: Marginal Effects).

	(1)	(2)	(3)	(4)	(5)	(6)
Urban	0.0519***	0.017	0.018	0.064	0.0126	0.009
	[0.0184]	[0.0193]	[0.0196]	[0.0609]	[0.0195]	[0.0205]
Income	-	-	-0.0001***	-0.0001***	-	-
	-	-	[0.0001]	[0.0001]	-	-
Male	-	-0.102***	-0.100***	-0.306***	-0.102***	-0.102***
	-	[0.0164]	[0.0166]	[0.0545]	[0.0166]	[0.0166]
Poor	-	-	-	-	0.135***	0.122***
	-	-	-	-	[0.0338]	[0.0397]
Urban Poor	-	-	-	-	-	0.037
	-	-	-	-	-	[0.0643]

Age (Reference: 15-20 Years Old)						
21-30 Years Old	-	0.053	0.076	0.205	0.104	0.105
	-	[0.0573]	[0.0638]	[0.184]	[0.0660]	[0.0661]
31-40 Years Old	-	0.129**	0.155**	0.454**	0.174***	0.175***
	-	[0.0572]	[0.0632]	[0.181]	[0.0643]	[0.0643]
41-50 Years Old	-	0.265***	0.296***	0.860***	0.315***	0.316***
	-	[0.0578]	[0.0629]	[0.182]	[0.0633]	[0.0633]
51-60 Years Old	-	0.386***	0.415***	1.181***	0.429***	0.430***
	-	[0.0586]	[0.0632]	[0.184]	[0.0632]	[0.0632]
Marital Status (Reference: Single)						
Married and live together	-	0.006	0.030	0.139	0.0331	0.034
	-	[0.0272]	[0.0274]	[0.0937]	[0.0274]	[0.0274]
Married but do not live together	-	0.069	0.113*	0.366**	0.120*	0.120*
	-	[0.0608]	[0.0659]	[0.180]	[0.0664]	[0.0664]
Divorced	-	-0.015	0.001	0.052	-0.000394	0.000
	-	[0.0477]	[0.0500]	[0.160]	[0.0499]	[0.0499]
Widow	-	0.0780*	0.0990**	0.311**	0.106**	0.106**
		[0.0471]	[0.0487]	[0.135]	[0.0492]	[0.0492]
Education Level (Reference: Primary Level)						
Lower-Secondary Level	-	0.028	0.043	0.157*	0.0374	0.038
	-	[0.0264]	[0.0276]	[0.0854]	[0.0272]	[0.0273]
Higher-Secondary Level	-	-0.0712***	-0.0571**	-0.134	-0.0675***	-0.0669***
	-	[0.0244]	[0.0260]	[0.0979]	[0.0250]	[0.0250]
Diploma Level	-	-0.044	-0.031	-0.010	-0.0478	-0.047
	-	[0.0338]	[0.0363]	[0.136]	[0.0340]	[0.0341]
Tertiary Level	-	-0.0927***	-0.046	0.012	-0.0809***	-0.0803***
	-	[0.0271]	[0.0345]	[0.162]	[0.0283]	[0.0284]
Region (Reference: Bangkok and Vicinity)						
Central	-	-0.0437*	-0.0498*	-0.182**	-0.0480*	-0.0488*
	-	[0.0260]	[0.0264]	[0.0899]	[0.0263]	[0.0264]
North	-	-0.109***	-0.119***	-0.474***	-0.115***	-0.116***
	-	[0.0250]	[0.0250]	[0.104]	[0.0249]	[0.0249]
Northeast	-	-0.121***	-0.129***	-0.474***	-0.129***	-0.129***
	-	[0.0246]	[0.0252]	[0.0946]	[0.0250]	[0.0250]
South	-	-0.0771***	-0.0791***	-0.261***	-0.0815***	-0.0821***
	-	[0.0270]	[0.0274]	[0.101]	[0.0272]	[0.0272]
Religious (Reference: Buddhist)						
Muslim	-	0.0882*	0.0854*	0.217	0.0910*	0.0913*
	-	[0.0463]	[0.0486]	[0.137]	[0.0489]	[0.0489]
Christian	-	0.156	0.170	0.488	0.168	0.166
	-	[0.113]	[0.121]	[0.312]	[0.121]	[0.121]
Constant	-	-	-	-0.907***	-	-
	-	-	-	[0.182]	-	-

Observations	3,180	3,097	3,016	3,001	3016	3,016

Standard errors in brackets
*** p<0.01, ** p<0.05, p<0.1

Other variables that have statistically significant effects on illness are gender, age, marital status, education, and region. In the sample, females are about 10 percent more likely to be ill than males. Couples who are married but do not live with the spouse are more likely to be ill compared to people with other marital status. Widowers, though, tend to have a high chance of being ill---31.1 percent higher than the single ones. Also, the likelihood of being ill increases with age.

The effects of education on the occurrence of illnesses are as expected: That is, people with higher educational levels have a lower chance of being ill. Bangkok residents have the highest chance of falling ill compared to those in other regions.

Conclusion

This paper has aimed to investigate whether urban settings have effects on well-being measures. Four main well-being measures were used in the study: life satisfaction, happiness level, mental score, and illness in the past month. Findings show that urban residents have lower life satisfaction and lower average mental score. Also, a higher proportion of the urbanites have below-average mental scores and experienced illnesses in the past month. However, these urban residents are as equally happy as their rural counterparts.

Because various theories suggest that urban-rural differentials in individual and social attributes may affect the well-being measures, this paper has also tested whether these various attributes differ between urban and rural settings. Results suggest that urban residents seem to be inferior in terms of their interpersonal resource, social interaction, and support. Contrary to the general

belief that urban areas are likely to offer adequate service, results indicate that health services are less available and less accessible to urban residents, which may be due to congestion.

Urban residents also have less ties with neighbors and are less likely to feel that they live within the status level that they expect. After comparing well-being measures and various individual and social attributes, this study finds that there is no significant difference in all measures between the urban poor and the rural poor.

Various multivariate analyses have been carried out to estimate the urban-rural differentials in the four well-being measures and to find out if there are differences in the calculations of these well-being measures between the urban poor and the rural poor. After controlling for individual socio-economic factors, findings prove that the urban settings still have some effects on life satisfaction. In this regard, urban residents are less likely to be satisfied with life compared to rural residents. Also, urban settings have no statistically significant effects on happiness level, mental score, and the likelihood of falling ill. Finally, individual factors matter in the estimation of well-being as the effects of urban settings disappears after controlling for individual socio-economic factors in the estimation of mental scores.

The study finds that income has significant effects on happiness and the likelihood of being ill, but does not have significant effects on life satisfaction and mental scores. Moreover, it concludes that the effects of income on well-being measures can be misleading if the estimation ignores endogeneity of income because the effects of income often disappears after controlling for the endogeneity.

This paper also tests the effects of being poor (i.e., below poverty line) on well-being. Findings suggest that being poor has statistically significant effects on all four measures of well-being. Although being poor has significantly negative effects on well-being measures, the score of the urban poor and the rural poor do not differ in all of the four well-being measures. This result contradicts the hypothesis that urban poverty is more detrimental to an individual's psychological well-being while rural poverty is more debilitating than urban poverty because of

the differences in the attitudes toward the poor in urban and rural communities. The finding, on the other hand, conforms with the hypothesis that the observed differential in the well-being of the urban poor and the rural poor may not be due to the characteristics of the urban-rural setting themselves, but due to differences in the two groups in terms of ethnicity, age, family status, and other demographic characteristics. Thus, these characteristics may serve as moderators of urban/rural poverty differences.

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