

A New Way of Monitoring the Quality of Urban Life

Eduardo Lora

Based on work with
Bernard van Praag, Andrew Powell and Pablo Sanguinetti

Research Department
Inter-American Development Bank

June, 2012



Monitoring the urban QoL: The *global* approach

Examples:

- The “Quality of Life Index”, by Mercer Consulting
- The “Global Cities Index” produced by Foreign Policy with A. T. Kearney and the Chicago Council on Global Affairs.

Method:

- A few, key dimensions (chosen by experts)
- Objective indicators in each dimension, same for all cities
- City rankings are computed using arbitrary weights

Pros:

- Visibility
- Comparability
- Useful for international business

Cons:

- Not a good guide for policy decisions
- Don't reflect the views and needs of the locals

Monitoring the urban QoL: The *local* approach

The screenshot displays the homepage of the 'quality of life' website. At the top left is the logo, which includes icons for a flower, a person, a musical note, and a checkmark, with the text 'quality of life' below. The main content area features a collage of images: a young girl holding a stuffed animal, a woman in a blue shawl, a man in a hard hat, a woman in an orange vest, and several other individuals. The text 'quality of life '08' is prominently displayed in a large, stylized font. Below this, the text 'IN TWELVE OF NEW ZEALAND'S CITIES' is visible. At the bottom, there is a navigation menu with the following items: Home, Quality of Life Report, Quality of Life Survey, Indicators, Key Results, Interactive Graphs, Media, and Contacts.

quality of life

quality of life '08

IN TWELVE OF NEW ZEALAND'S CITIES

Home Quality of Life Report Quality of Life Survey Indicators Key Results Interactive Graphs Media Contacts

Monitoring the urban QoL: The *local* approach

The image shows a screenshot of the 'Rio Como Vamos' website. The top left features the logo 'RIO COMOVAMOS' with a stylized figure. Below it is a navigation menu with categories like 'Educação', 'Saúde', 'Violência e Segurança Pública', etc. The main content area is titled 'Sistema de Indicadores Rio Como Vamos' and includes several news items: 'Lançamento da Comissão Brasileira sobre Drogas e Democracia', 'Rede de Cidades se mobiliza para debater PPA em todo Brasil', and 'Segundo projeção do IBGE, Rio tem 6,2 milhões de habitantes'. On the right, there is a 'Blog' section with a post by Rosiska and an 'Enquete' (poll) about domestic violence. The bottom right has a 'Programa de Metas' section and a 'O que os números dizem' section with a poll about assault cases. The website has a clean, orange and white color scheme.

RIO COMOVAMOS

Como Vamos em: Educação, Saúde, Violência e Segurança Pública, Trabalho, Emprego e Renda, Pobreza e Desigualdade Social, Transporte, Meio Ambiente, Cultura, Câmara dos Vereadores, Orçamento

Nosso Trabalho: Quem Somos, Rede de Cidades, Instituições Parceiras, Junto ao o bô

Sala de Imprensa, **Como o Carica vê o Rio**, **Central de Informações**, **Central de Notícias**, **Rio Como Vamos na Mídia**

Patrocinadores: Santander

Sistema de Indicadores Rio Como Vamos

Lançamento da Comissão Brasileira sobre Drogas e Democracia
Grupo quer debater e propor mudanças nas leis sobre drogas do Brasil

Rede de Cidades se mobiliza para debater PPA em todo Brasil
É o momento do Poder Executivo planejar os próximos quatro anos

Segundo projeção do IBGE, Rio tem 6,2 milhões de habitantes
Leia texto sobre as estimativas populacionais do IBGE

QUALIDADE DE VIDA

Programa de Metas
Confira o projeto que institui metas para o poder Executivo municipal

Rio Como Vamos na Mídia
10/08/2009
Formação política na Maré
08/08/2009
Maré vai sediar curso de formação política com RCV

O que os números dizem

Levantamento mostra que os assaltos a pedestres foram o crime que mais se repetiu na RA Tijuca entre maio de 2008 e o mesmo mês de 2009. Ao todo, foram 889 casos registrados nas delegacias da área. Veja todos os dados do estudo.

> Veja os números

Blog

Blog da Rosiska
Uma pandemia é um revelador. O que ela dá a ver é o desgoverno mundial, a precariedade dos recursos coletivos para fazer face a uma real ameaça.

> Acesse o Blog

Enquete

Você conhece alguma mulher que tenha sido vítima de violência doméstica familiar?

Sim
 Não

Quem era o agressor?

Marido / companheiro
 Namorado
 Ex-marido / ex-companheiro
 Ex-namorado
 Pai

Os filhos também eram agredidos?

Sim
 Não
 Não tinha filhos

O caso foi denunciado à polícia?

Sim
 Não
 Não sei

Entre em que mês:
- seleccione -

enviar

Monitoring the urban QoL: The *local* approach

NOSSA SAO PAULO

english version

- aumentar letra
- diminuir letra
- fim da página
- alto contraste
- layout padrão

Google™ Pesquisa Personalizada

PÁGINA INICIAL | QUEM SOMOS | ORGANIZAÇÕES PARTICIPANTES | PARTICIPE | IDEIAS E PROPOSTAS | PRÁTICAS EXEMPLARES | BIBLIOTECA | LINKS | LOGIN

➤ Eixos do Movimento

➤ Grupos de Trabalho

➤ Ações Nossa São Paulo

➤ IRBEM

➤ Nossa SP na Câmara

➤ Central de Notícias

➤ Observatório Cidadão

➤ Rede de Cidades

➤ Agenda Cidadã

➤ Imprensa

➤ Publicações

➤ Áudio, vídeo e imagem

➤ Material Gráfico

➤ Fale Conosco

➤ Eleições 2008

IRBEM 17/11 Resultado da consulta pública

II Seminário Conexões Sustentáveis faz balanço de um ano da iniciativa

Algumas empresas tomaram medidas concretas depois da pesquisa de 2008. Prefeitura de SP diz que comitê vai começar a acompanhar compras

Mesa da Câmara propõe salário de R\$ 23.216 para prefeito

Participe: resultados do IRBEM serão divulgados em evento na terça-feira

IPTU e precatórios devem gerar mudanças no orçamento de São Paulo

Verba para Assistência social em SP está estagnada

SP terá conferência de comunicação nesta sexta e sábado

Rede social do Dia Mundial Sem Carro

Agenda Cidadã

Agenda Cultural da Periferia

Programa de Metas
Consulte a Agenda 2012 da Prefeitura de SP
Conheça a Lei de Metas

Conselho de Representantes
Apoie a frente parlamentar na câmara municipal

Catraca Livre

Transporte

- Plenária na Zona Leste encerra encontros regionais sobre transporte
- Zona Oeste quer melhoria

Indicadores e Pesquisas

Indicadores / Pesquisas

Monitoring the urban QoL: The *local* approach



Bogotá *Cómo vamos*

CONOZCA LOS PRINCIPALES SECTORES QUE EVALUA BOGOTÁ CÓMO VAMOS

+ QUIÉNES SOMOS

POBREZA Y EQUIDAD	FINANZAS PÚBLICAS	EDUCACIÓN	SALUD	SERVICIOS PÚBLICOS	CULTURA	PARTICIPACIÓN	MÓVILIDAD VIAL	ESPACIO PÚBLICO	MEDIO AMBIENTE	DESCENTRALIZACIÓN	RESPONSABILIDAD CIUDADANA	SEGURIDAD CIUDADANA	GESTIÓN PÚBLICA	DESARROLLO ECONÓMICO	VIVIENDA
-------------------	-------------------	-----------	-------	--------------------	---------	---------------	----------------	-----------------	----------------	-------------------	---------------------------	---------------------	-----------------	----------------------	----------

Monitoring the urban QoL: The *local* approach: “*Cómo Vamos*”

Method:

- As many dimensions as needed to respond to public opinion demands
- Mix of objective and subjective indicators, some common across cities
- No synthetic index of quality of life or city rankings

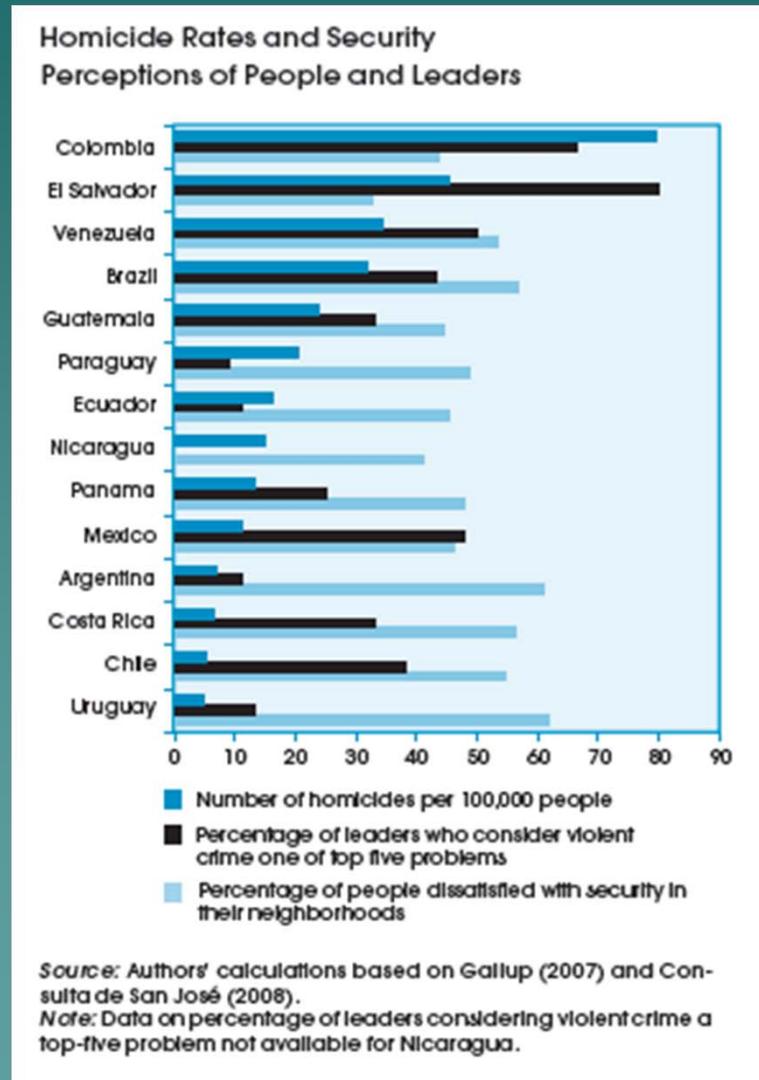
Pros:

- Visibility (local)
- Can reflect the views and needs of the locals
- An input for public policy debates

Cons:

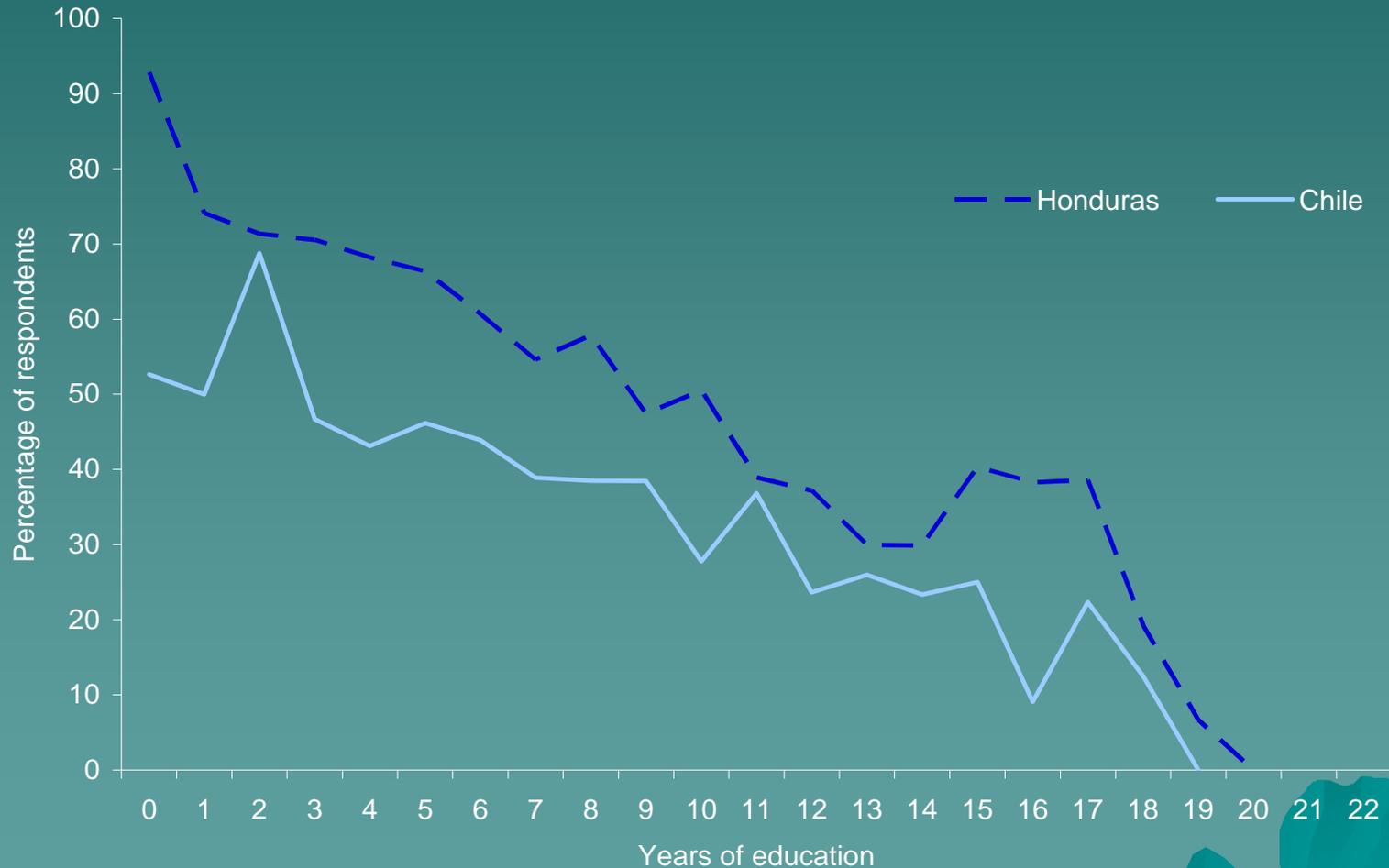
- Too many topics but no criteria to rank needs/problems
- No criteria to compare zones within the city of interest
- Very limited comparability across cities
- No conceptual framework to make good use of subjective data...

The limitations of subjective data: Gaps between perception and reality



The limitations of subjective data: The aspiration paradox

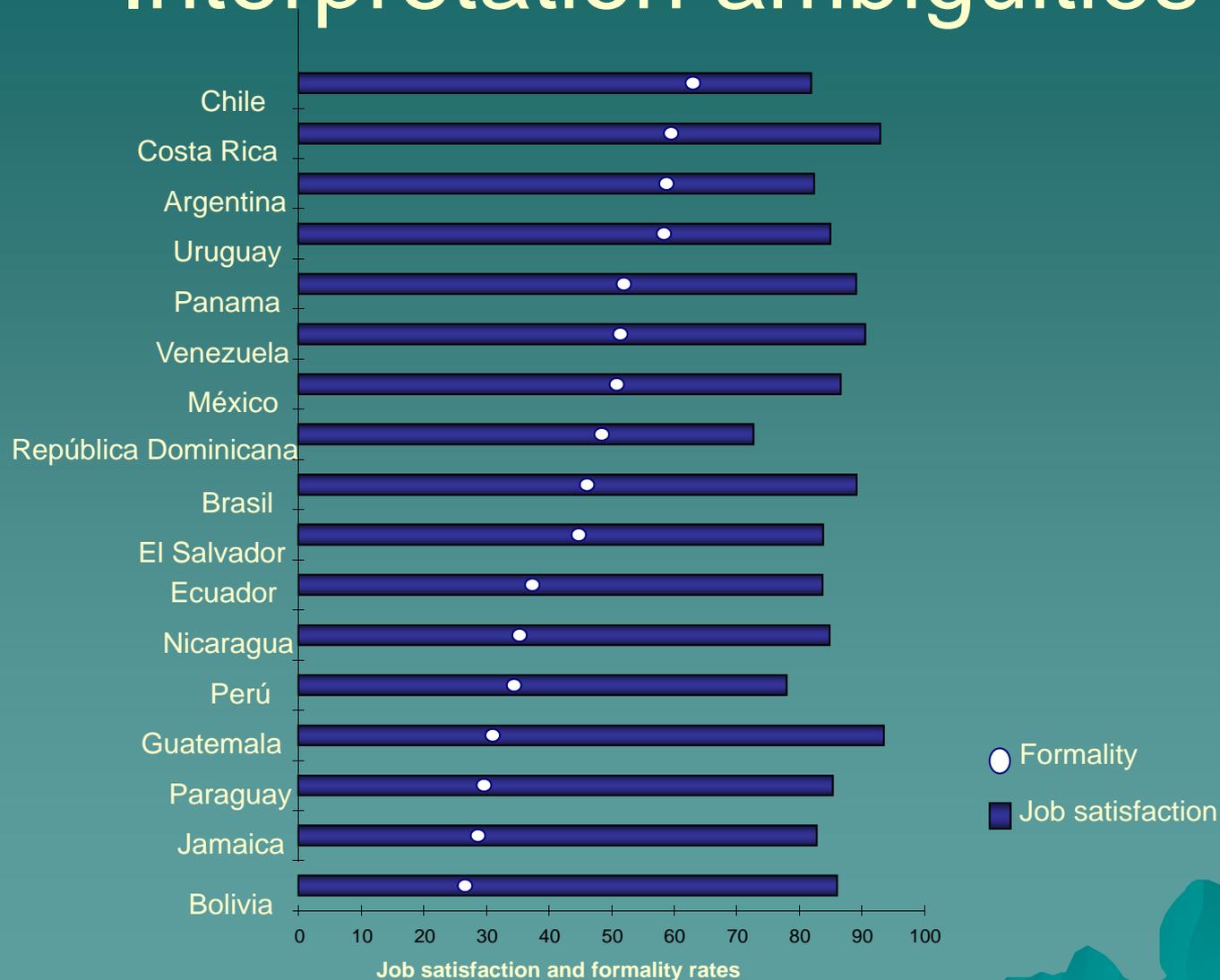
People Who Think the Majority of the Children Receive a Good Education



Source: Authors' calculations based on Quality of Life Modules of household surveys.

Note: the sample corresponds to adults 18 years old or older.

The limitations of subjective data: Interpretation ambiguities



Monitoring the urban QoL: The *local* approach improved... The *neighborhood* approach

- ◆ Level of observation truly local: neighborhood
- ◆ Emphasis on public goods, services and amenities with spatial dimension
- ◆ Organized use of objective and subjective data
- ◆ Relative importance of QoL dimensions or their components not imposed on the data
- ◆ ...but elicited with the help of two simple methods:
 - What the market recognizes as valuable: the hedonic price method
 - What affects people's subjective well-being: the life satisfaction method

The essence of the two methods

□ The hedonic price method:

House prices (p) depend on housing features (H) and neighborhood features (Z)

$$\ln p_{ij} = \text{constant} + \gamma_1 H_i + \gamma_2 Z_j + v_{ij},$$
$$v_{ij} = \delta_j + \eta_i$$

□ The life-satisfaction method:

Life satisfaction (LS) depends also on H and Z , plus individual-level variables (income, age, family size)

$$LS_{ij} = a + b y_{ij} + c \text{age}_{ij} + d \text{age}_{ij}^2 + e \text{fs}_{ij} + g H_{ij} + h Z_j + v_{ij}$$

The essence of the two methods

For any neighborhood feature:

	Influences housing prices: market attaches a value to it	Does not influence housing prices: market does not attach a value to it
Has (separate) influence on well-being		
Does not have (separate) influence on well-being		

The essence of the two methods

For any neighborhood feature:

	Influences housing prices: market attaches a value to it	Does not influence housing prices: market does not attach a value to it
Has (separate) influence on well-being		
Does not have (separate) influence on well-being	Markets function well: access/distance to downtown or shopping center	

The essence of the two methods

For any neighborhood feature:

	Influences housing prices: market attaches a value to it	Does not influence housing prices: market does not attach a value to it
Has (separate) influence on well-being	Conditions are changeable: safety Huge consumer surplus: basic services	
Does not have (separate) influence on well-being		

The essence of the two methods

For any neighborhood feature:

	Influences housing prices: market attaches a value to it	Does not influence housing prices: market does not attach a value to it
Has (separate) influence on well-being		Market signals don't function: access to culture and recreation
Does not have (separate) influence on well-being		

The essence of the two methods

For any neighborhood feature:

	Influences housing prices: market attaches a value to it	Does not influence housing prices: market does not attach a value to it
Has (separate) influence on well-being		
Does not have (separate) influence on well-being		Potentially problematic: air quality, traffic (!)

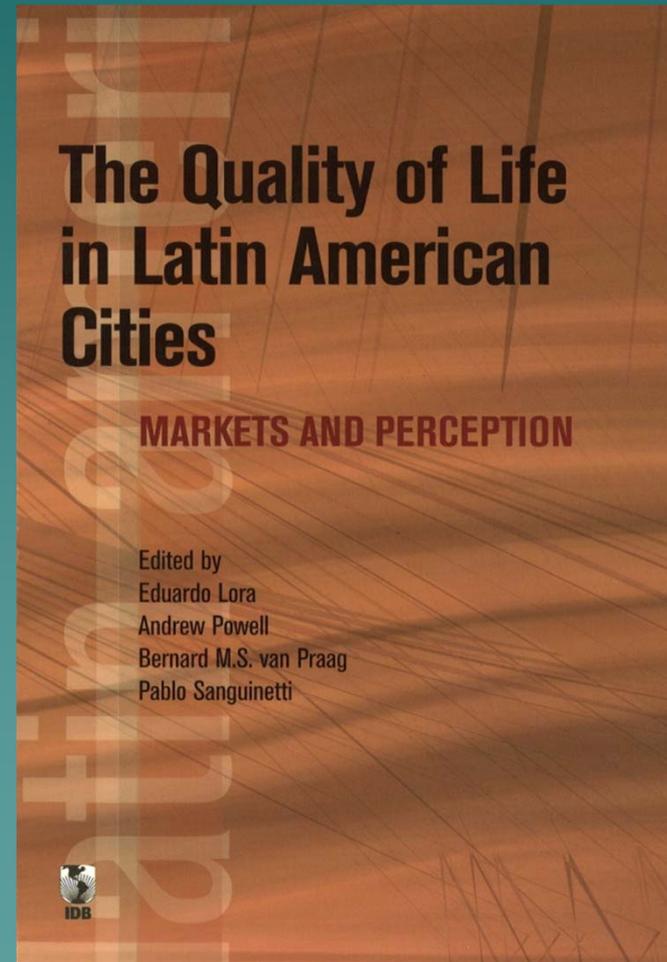
The essence of the two methods

For any neighborhood feature:

	Influences housing prices: market attaches a value to it	Does not influence housing prices: market does not attach a value to it
Has (separate) influence on well-being	Conditions are changeable: safety Huge consumer surplus: basic services	Market signals don't function: access to culture and recreation
Does not have (separate) influence on well-being	Markets function well: distance to downtown, or shopping center	Potentially problematic: air quality, traffic (!)

Monitoring the urban QoL: The *neighborhood* approach in practice

- ◆ Experimental applications in:
 - Argentina: Buenos Aires
 - Colombia: Bogota and Medellin
 - Costa Rica: San Jose
 - Peru: Lima
 - Uruguay: Montevideo



Monitoring the urban QoL: The *neighborhood* approach in practice **Manizales, Colombia**



**Epicenter of the
traditional coffee
growing area**

Altitud: 2200 m.

Population: 390,000

Survey sample: 6,300

**Average income per-
capita: \$2,786/year**

**Average housing rent
per-capita:
\$630/year, \$52/month**

Source: Velásquez (CRECE), 2011.

Valuing public goods using the hedonic price and the life satisfaction approaches

	Hedonic prices			Life satisfaction		
	Coefficient		Implicit price (US\$/mo)	Coefficient		Implicit price (US\$/mo)
DWELLING FEATURES						
House	-0.056	***	-2.9	0.005		
Number of rooms	0.147	***	7.7	0.011	***	58.0
Floors of good quality	0.183	***	9.6	0.019	***	112.9
Walls of good quality	0.140	***	7.3	-0.035	***	240.8
Front garden	0.068	***	3.6	0.003		
Telephone service	0.114	***	6.0	0.027	***	172.1
Gas service	0.093	***	4.9	0.020	***	116.4
Slope of street	0.001			0.000		
NEIGHBORHOOD FEATURES						
Residential area	0.093	***	4.9	0.031	***	207.3
Paved streets	0.115	***	6.0	-0.005		
Sidewalks	0.061	**	3.2	0.005		
Park besides or in front	0.066	**	3.5	0.018	**	101.3
Green zone besides or in front	0.018			0.005		
Distance to sport facilities (ln)	-0.005			0.002		
Distance to shopping (ln)	-0.031	***	-1.6	0.001		
Distance to cultural center (ln)	-0.017	*	-0.9	-0.005	**	-25.4
Distance to school (ln)	0.004			-0.001		
Distance to church (ln)	-0.005			0.002		
Distance to health center (ln)	0.004			0.001		
Distance to rescue/fire station (ln)	0.019	**	1.0	0.002		
Distance to public transportation stop (ln)	-0.020	*	-1.0	0.000		
Distance to college (ln)	-0.057	**	-3.0	0.005		
Distance to downtown (ln)	-0.091	***	-4.8	-0.011		
Distance to bus terminal (ln)	-0.018			0.000		
Distance to main street	-0.025	***	-1.3	0.000		
Feels safe in neighborhood	0.034	**	1.8	0.014	**	79.1

Source: Velásquez (CRECE), 2011.

Calculating implicit transfers due to the provision of public goods

Implicit transfers per household
(USD/month)

	Average	Lower class	Middle class	Upper class
Implicit transfers through rents				
Paved streets	5.4	2.6	4.1	9.3
Sidewalks	3.0	1.5	2.3	5.0
Park besides or in front	0.6	0.2	0.4	1.1
Security in neighborhood	1.5	0.7	1.1	2.6
Implicit (additional) transfers thru life satisfaction				
Park besides or in front	16.4	2.6	8.4	36.7
Security in neighborhood	65.0	15.9	40.9	133.3

Source: Velásquez (CRECE), 2011.

Uses of the results

- ◆ Ranking and tracking of neighborhoods
 - By housing prices and by satisfaction
- ◆ Ranking and tracking of needs
 - By neighborhood, socio-economic group, etc.
- ◆ Who benefits from public expenditures:
 - By neighborhood, socio-economic group, etc.
- ◆ Valuation of public goods and cost-benefit analysis of public expenditures
- ◆ Analyses of public project finance options:
 - When to use property taxes
 - When to subsidize provision (sidewalks, parks, etc.)

Conclusion

- ◆ Urban monitoring is still in its infancy
- ◆ Systems such as the “Cómo Vamos” have a great potential
- ◆ The “neighborhood approach” presented here can make urban monitoring more useful for urban policy and planning.