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Subjective Well-being in Cities: Individual or Collective? A Cross Cultural Analysis.

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Abstract

The paper presents a comparative cross cultural research about domains of subjective wellbeing (SWB) and a global measure of Satisfaction with Life as a Whole-SWLS- in three major cities- Bogotá-Colombia; Belo-Horizonte- Brazil and Toronto-Canada-. The three cities studied were selected for comparative analysis as part of a project about city indicators financed by the World Bank across different nations (Hoornweg, Ruiz, Nuñez, Wills, 2006)[1].For this purpose, the Personal and National Wellbeing Indexes- PWI and NWI developed by the International Wellbeing Group- IWG- (Cummins, 1996, 2002) were applied and validated in these cities. The cities chosen have similar democratic institutions but different cultures and standards of living ("objective" indicators of "development"). This comparative analysis enabled exploration of "collective SWB" in urban environments and the relative contribution of social relationships, social class, spirituality and cultural values. The paper presents the validation of SWLS, PWI and NWI measures at the city level. Significant differences were found across cities for the three indexes as well as significant interaction effects with demographical variables. We propose that individual evaluations of SWB may be determined by dispositional factors (top-down), context (bottom-up domains) and cultural values and their interactions. Three additional domains as contributors for SWB are proposed for future research: i) satisfaction with spirituality and religiosity, ii) social status (objective and subjective social class) and iii) cultural diversity as a way to

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[1] The comparative survey has been financed by the World Bank as part of the project: City indicators: Now to Nanjing

broaden the definition of SWB from the individual to the social by acknowledging the social dynamics that people are embedded in.

1. Introduction

The empirical study of subjective happiness has been growing in prominence over the last 30 years (Diener, Suh, Lucas, and Smith, 1999). The search for antecedents and correlates of well-being promises to enrich perspectives on social welfare that have previously suffered from a purely materialistic bias (e.g. Easterlin 1995). While many studies have looked at happiness as an individual difference, some research has identified stable differences across countries and cultures, suggesting that social context can be a driving factor in people's levels of happiness. For example, Eid & Diener (2004) found differences between individualistic and collectivistic cultures on norms about positive emotions. In addition, Diener (2000) presents country level differences in levels of subjective well-being, suggesting strong links between what country (city) one resides in and how likely one is to experience well-being.

In general, such studies have aggregated well-being to the country or culture level of analysis. However, because one would expect well-being to be most influenced by proximal situational factors, and because these factors are more likely to be displayed at the local or city, rather than national, levels, it seems that the situational study of well-being would focus on the city level of analysis. Unfortunately, little research exists that explores such effects.

Our interest is to understand and develop a concept which can be named as "inter-subjective happiness" or "collective SWB" in cities. One important factor that

comes into play at this level is social inclusion or exclusion. We used perceived social status as a proxy for this variable in explaining SWB. Cultural diversity in cities is another contextual variable that we propose to test for new research based on the results found for the demographic diversity found in these cities. Cultural diversity (which has differing factors and sources in different locations as discussed below) may be related with higher creativity in cities or on the contrary it can produce social exclusion and conflict, therefore having an important effect for SWB. Including social and cultural dimensions may contribute to understanding SWB not only as an outcome of individual traits but also as the result of social relations in which the individuals or citizens are embedded (Grannovetter, 1985).

The paper unfolds as follows: In the first section a conceptual framework about SWB is formulated. It is proposed that SWB of citizens is a multidimensional variable that is composed of evaluations about different domains of satisfaction with life, in a bottom-up (i.e., component-based) approach by which citizens appraise in a cognitive and affective way the evaluations, both positive and negative, of how people experience their lives in a particular city. It is suggested that the results of these indexes for particular cities will vary according not only to personality factors of the citizens appraised but also to the evaluations they have of particular contextual variables plus particular cultural values of the contexts involved. It is suggested that some domains of NWI may be understood as contextual antecedents of PWI and that culture plays an important role in explaining the values obtained for individuals as well as the aggregated results at the collective level of the city. The second section summarizes the comparative results of the application of the PWI and NWI in the three cities of South and North

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American continent. Findings are provided and cultural differences are explored. In the third section it is suggested that PWI should expand to consider a new domain: satisfaction with spirituality, a variable that implies a eudaimonic approach (Ryan & Deci, 2001) to SWB. At the same time, two social variables (social status and cultural diversity) are proposed for additional testing as new domains for NWI. Finally in the fourth section, hypotheses for exploring new research are provided.

2. Conceptual Framework for Research

Our research on subjective wellbeing SWB has been inspired by two main questions: i) to try to understand why SWB is so high among Latin-Americans, particularly Colombians as compared with other countries and to identify which particular Colombian factors (contextual and cultural) can explain such high levels, and ii) how can we parsimoniously develop a conceptual framework to explain SWB as the dependent variable using individual, social and cultural variables as explanatory factors. It is our belief that wellbeing for citizens is the result of individual, social and cultural variables and their interactions.

As a first step in this research we propose to use in an exploratory analysis the indexes developed by the International Well-being Group IWG and test the hypothesis that some domains of NWI may significantly explain part of the variance of PWI found in cities[2]. In this case, some of the variance of the individual SWB expressed by the PWI index may be explained by contextual, social and cultural variables. The IWG has as one of its aims the development of a valid and reliable scale for SWB across cultures. In that relation we discuss the possible contribution of three new domains to satisfaction with life in cities: i) satisfaction with religiosity

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[2] See Appendix A for a detailed summary of PWI and NWI scales

and spirituality, ii) Cultural diversity in cities(based on results of demographic diversity) which in turn may reflect cultural diversity and iii) social status. That is to say, we propose to expand the domains of both PWI and NWI to include social, cultural and contextual variables. In this paper we discuss the results obtained in two studies conducted in Latin America and Canada

In a first study that tested how to expand PWI and NWI domains, Wills (in press) applied a quantitative methodology using both indexes in one city- Bogotá, and obtained statistical evidence for the inclusion of a new domain in the PWI index, namely satisfaction with spirituality and religiosity. This is an important contribution to research since satisfaction with spirituality may be considered as a contextual variable that varies across cultures and gender. Additionally, it is an important contribution to find these results with individuals and cities outside the mainstream research that has been conducted with samples of Europeans, North-Americans and Australians.

In a second study, we used a representative survey at the city level of two South-American cities as well as Toronto. Interesting comparative and significant results emerged form this cross-cultural study. For instance, cultural differences relative to the assessment of domains of life satisfaction in a bottom-up approach versus global measures that assess SWB via a top-down approach are discussed.

The comparative study done in three cities, led us to consider new conceptual questions to explore for the inclusion of new domains in the NWI Index: i) demographic diversity as a proxy for cultural diversity and ii) social status (Islam & Wills, 2007). Social status was measured from an objective point of view as recorded by the Brazilian census as well as a perceived subjective indicator

obtained from the direct appraisal of participants. These research questions are explored with the additional interest to understand possible interventions of public policy in cities and in local communities to enhance the individual and collective SWB of citizens. As has been stated recently, "measures of SWB can be useful in assessing the need for certain policies and in measuring the outcomes of policy intervention" (Diener, 2006).

We propose that the NWI index includes the appraisals that individuals have about their satisfaction with some contextual conditions of their cities. Contextual refers to such issues as the economic and social conditions, the environment, the government and the possibility of doing business in the city at either the national, regional or local level.

From a parsimonious view of research, we state that it is important to develop new domains for the SWB indexes and broaden the dimension of SWB from an individual to a social point of view. To use individual measures of SWB exclusively fail to fully capture the collective and social dynamics of the relationships in which individuals are embedded (Granovetter, 1985).

Nevertheless, we also state that to use only a quantitative approach to SWB has important limitations for understanding such a complex and holistic concept as subjective or inter-subjective well-being and therefore qualitative approaches should be pursued. For future research quantitative analysis and analysis from narratives of participants could be combined.

3. **Comparative Research on SWB in Bogotá, Toronto and Belo Horizonte**

Three different cities of the Americas were chosen for this comparative research. Each city displays different levels of "objective indicators" of development. We are

interested to know if quality of life and well being from the citizen's point of view, how they feel and think about their well-being correspond to that ranking or not. Toronto in Canada has the highest objective indicators. The average household yearly income is US $ 50000 followed by Bogotá and Belo Horizonte. The application of PWI and NWI intends to test if subjective evaluations of life of the urban population of these cities differ from those objective measures of development.

Cummins et al (2004) and Cummins (1996) have provided both empirical and theoretical arguments for the use of seven domains that comprise PWI including satisfaction with the individual's standard of living, health, achievements in life, personal relationships, security, connectedness with community and future security. In addition, a National Well-being Index (NWI) has been proposed to measure satisfaction with life at the national level. This index can also be used at the regional, local or city level. In this particular study, NWI will be applied at the city level. For PWI and NWI, the domain's scores are averaged to produce a measure of SWB. The National Well-being Index (NWI), applied in this study at the city level is a more distal measure composed of six domains (Satisfaction with the Economic Situation, the State of the Environment, Social Conditions, the Government, Business and Local Security).

3.1 Data Collection Instrument

The data for Toronto (T) and Bogotá (B) was collected by telephone. In (BH) the survey was made face to face in the household of the person involved. Instruments can be seen in Appendix A. The data were collected from a random sample.

Sample Size for each city is shown in Figure 1. The residents were 18 years of age or older. This yielded a statistical sample estimated to produce +/-4% margin of error for (T) and (BH) and +/- 5% for (B)

Table 1 Sample Size by City

City	City Size	Representative ness	Sample size
(BH)	2238536	4%	600
(B)	7056219	5%	830
(T)	2,481,494[3]	4%	605

3.2 Validation and reliability of scales

Validation of the indexes was performed with the following criteria: i) PWI and NWI have significant bivariate correlations with a third variable SWLS in the three cities, ii) the same factor structure can be found for PWI and NWI in the three cities, iii) high reliability indexes measured by Cronbach's alpha in the three cities. Validation of the Indexes was successful in the three cities each of which has different contextual and cultural environments. The analysis of results shows a high reliability and internal validity for the measures- SWLS, PWI and NWI- applied at the city level (See Table 2). The same factor structure for the PWI and NWI items were found for Toronto and Bogotá (See Table 3). Belo Horizonte showed a third factor emerging in the analysis. Bivariate Correlation between SWLS, PWI and NWI were significant at p≤ .00 level in the three cities (See Table 4) and the correlation values were high.

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[3] The population of greater Toronto area is of 4,682,897

Table 2 Cronbach's Reliability for PWI and NWI by City

	B	BH	Toronto
Cronbach's alpha PWI	.756	.727	.824
Cronbach's alpha for NWI	.802	.770	.816
Cronbach's Alpha for SWLS	.812	.876	.805

Table 3

Bivariate Correlations for PWI, NWI and SWLS in the three Cities

	PWI	NWI	SWLS
Bogotá			
PWI	1	.466**	.586**
NWI			.206**
Toronto			
PWI		.517**	.552**
NWI			.310**
Belo Horizonte			
PWI		.534**	.598*
NWI			.357**

Table 4 Factor Analysis with Principal Components with Varimax Rotation for Toronto

Varimax Rotation	Component	
	1	2
Standard of Living	.793	.185
Health	.625	.125
Achieving in Life	.816	.066
Personal relationships	.691	.114
Safe	.475	.410
Feeling part of community	.501	.326
Future security	.688	.315
Economic Situation	.361	.581
State of environment	.034	.733
Social Conditions	.183	.788
Government	.086	.756
Business	.290	.604
Local Security	.244	.672

Inter item correlations between PWI and the seven domains and NWI and the six domains were all significant at p ≤ 0.01 which shows a high construct validity of both scales as can be seen in Table 6.

Table 6 Inter-item correlations for PWI and NWI with SWLS for (T)

PWI	Standard of Living	.776**
	Health	.642**
	Achieving in Life	.768**
	Personal relationships	.703**
	Safe	.610**
	Feeling Part of Community	.629**
	Future Security	.758**

NWI	Economic Situation	.691**
	State of Environment	.713**
	Social Conditions	.799**
	Government	.760**
	Business	.673**
	Local Security	.694**

** Correlation is significant at 0.01 levels

The scales were translated specifically for the current study. They had not been previously tested in a Portuguese-speaking context. The relatively high reliabilities give good evidence that the scales are appropriate for use in their current translated form.   The generally high item-total correlations also suggest this conclusion. Results show that high construct validity is found for both PWI and NWI scales. The strong single factor solutions lend further credence to the unitary nature of the scales, and generally strengthen the argument for their use in their current form.

Therefore we can conclude that the methodology for PWI and NWI provides a common frame to extend the measures and methodology to other cities of the world. This successful validation of scales at three different contextual cities suggests an interesting explanatory capacity of the measures as well as an

important utility of applying subjective indicators of wellbeing to construct a more integrative index of quality of life of cities. Results suggest that PWI consists of a personal dimension that can be explained through the homeostasis theory of subjective wellbeing (Cummins et al., 2004) as well as cultural and contextual variables related to the socio-cultural environments of each particular city. Empirical results shows that NWI at the city level highly correlates with PWI in a cross- cultural analysis and we propose it as an antecedent of PWI, a hypothesis that will be discussed later and that needs further testing.

3.3 Results for PWI and NWI

Results for PWI, NWI and its domains for each city are shown in Table 7

Table 7 Results for PWI, NWI and its domains by City

Domain	(B)		(T)		(BH)	
	Mean	SD	Mean	SD	Mean	SD
PWI	7.59	1.167	7.35	1.419	6.92	2.434
Standard of Living	7.53	1.828	7.51	1.948	6.58	2.296
Health	7.63	2.003	7.35	2.071	8.24	2.675
Achievements	7.45	1.802	7.20	2.007		2.360
Personal Relationships	8.05	1.634	7.56	2.230	6.94	2.989
Security	7.98	1.572	7.73	1.773	7.61	2.772
Community	7.59	1.957	6.82	2.086	6.12	3.044
Future Security	6.87	1.982	6.95	2.096	7.05	1.634
NWI	5.55		5.87	1.375	5.42	1.86
Economics	5.19	1.496	6.10	1.840	5.96	2.527
Environment	5.30	1.947	5.03	2.044	5.75	2.534
Social Conditions	4.55	1.919	5.56	1.934	5.5	2.869
Government	5.35	1.847	5.45	2.116	5.81	2.752
Business	5.49	2.504	6.61	1.640	5.23	2.752
Local Security	5.84	2.179	6.45	1.838	4.28	2.785
Others						
Spirituality/religiosity	8.65	1.692	7.09	22.58	2.615	

PWI has shown high results for (T) and (B) and relatively low numbers for (BH). This was an expected result. Previous studies have shown that Colombians show high levels of happiness and subjective wellbeing despite lower Gross Per Capita Product and incomes. The city of (B) has made a great effort for the betterment of the urban environment in the last 10 years. These efforts have been highlighted and recognized internationally. Its transportation system based on exclusive lane for public buses, the betterment of public spaces and urban infrastructure and the lowering of very high historical crime rates to record levels have been recognized by their inhabitants who feel much better today in terms of quality of life than ten years ago. (T) showed also very high results. This was expected for the high income per capita of the city and the experienced quality of life of Canadian cities. Results for (BH) showed lower values for PWI perhaps because individuals in this city face increasing challenges such as stress and pain which exceed individual resources such as personal relationships, income or living with a partner. In tracking PWI in the future, it is proposed that the economy of the city should be closely monitored. Increasing unemployment rates, low rates of salary increases, increasing age of retirement could be causes of the diminished individual resources to sustain subjective well being. On the other hand, results for PWI around 75 in a 0-100 range for (B) and (T), with standard deviations around 15 confirm the homeostasis theory i.e. that SWB fluctuates around a in-built set point for each person, so that people who go through life-altering events return to their homeostatic level, which is mainly determined by personality (Brickman et al., 1978, Kahnemann, 1999) for subjective well being (Cummins et al., 2004)..

Some of the most interesting results of the comparative analysis for the different relationships between demographics and PWI and NWI are as follows:

1. A significant difference in the results for PWI, NWI and SWLS indexes was found (F= 39.58; F= 35,93, F= 61,15, p ≤.00) for the three cities (Table 6) , a result that provides an empirical evidence that contextual factors play an important role in explaining the different levels of SWB.

Table 8

Anova Results for NWI, PWI and SWLS by City

		Sum of Squares	GI	Quadratic mean	F	Sig.
PWI	Inter-grup	153.298	2	76.649	39.586	.000
	Intra-grups	3897.705	2013	1.936		
	Total	4051.003	2015			
NWI	Inter-grups	178.752	2	89.376	35.936	.000
	Intra-grups	4959.296	1994	2.487		
	Total	5138.048	1996			
DIENER SWLS	Inter-grups	185.195	2	92.597	61.153	.000
	Intra-grups	3070.756	2028	1.514		
	Total	3255.950	2030			

2. Satisfaction with spirituality and religiosity contributes significantly to satisfaction with life as a whole scale, with a significant change in Δr^2 ≤0.05 in Bogotá (Wills, in press). Hierarchical regression analysis in which the seven domains of PWI were regressed against satisfaction with life as a whole, as a first block of independent variables, and satisfaction with spirituality as a second block, shows a significant change in R squared.

These results contradict other international studies where spirituality has not show any significant contribution to PWI as in the case of Australia (Cummins et al, 2004). This is a very important result that should be further researched.

3. A significant gender difference was found for satisfaction with spirituality in the three cities (F= 46.95 ≤0.05), being the result of such satisfaction significantly higher for women than for men.

4. A significant difference by city was obtained for satisfaction with life as a whole as a single and composite measure (F= 91.98, p≤0.00, F= 61.15, p≤0.05). However comparative values vary for PWI, NWI and SWLS by city. In the first case, Bogotá (B) showed the highest results followed by Toronto (T) and Belo Horizonte (BH). For NWI, T showed the highest results followed by BH and B. For Satisfaction with Life as a Whole SWLS, Toronto showed the highest results followed by B and BH. This interesting result suggest that they may be cultural differences in the appraisal of SWB when it is measured in a top-down approach (SWLS) as compared when it is measured in bottom-up approach (PWI).

5.Social status showed a significant difference by level with PWI for BH where this hypothesis was proposed (F= 8.65,p ≤ 0.05) showing that the higher the perceived social status of the respondent the higher its PWI. This results confirms that income level is one of the most powerful determinants of subjective well being: PWI increases with income, perceived social class or socioeconomic level in (B) and (T). (BH) does not show this trend clearly. Policies oriented to secure income level and economic stability will eventually increase the subjective well being of citizens in the future.

6.(B) and (BH) show that the younger the population the higher the PWI index, contrary to the international evidence. Young adults feel more optimistic about their future in these cities than in Australia and Portugal, where PWI increases with the age percentile, being lowest with the young population. For (T) no clear evidence was found in the relationship between PWI and age. Younger population represents a higher percentage of total population in South American countries whereas in Canada older population is majority. The result that the younger population has higher PWI in South American cities is an important finding which contradicts the international evidence for other countries, particularly the Australian surveys.

4. Contextual Domains of NWI as antecedent of PWI

Based on the previous arguments, we tested the hypothesis that NWI (more distal and contextual) is not only highly correlated with PWI (a more proximal measure) but that it can explain part of the variance found in PWI as the dependent variable. We consider that NWI, a bottom-up constructed measure takes into consideration the cognitive evaluation of specific domains (objects) of cities and that therefore it should be interpreted not only as core affect (Russel, 2003) but also as a cognitive evaluation of domains. As it is possible that SWLS, a top-down measure may explain the variance found in PWI, we tested the significant contribution of the NWI domains above the contribution of SWLs to PWI. Significant contributions were found for four domains of the NWI index in the three cities. Additionally, Islam (2007) stated for (BH) that with regards to the relationships between the single item indicators and the scales for the PWI and NWI constructs, the multiple regressions

tend to show stronger overlap in the case of the PWI, and less overlap in the case of the NWI. This is a result corroborated for (B) and (T). The adjusted R squared of .396 in predicting the single item measure with the scale suggests that the two are related, but not so much as to conclusively prove construct homogeneity.

More research establishing the exact nature of the relationship between personal and national well being would help to clarify how these two constructs work together, but one may note the high correlation between the two in the current study (.577). As an illustration, bivariate correlations between domains of PWI and NWI for (T) are shown in the following Table. All are significant at the 0.01level[4]

Table 9 Correlation of Life as a Whole and all domains for Toronto

	Life	PWI	NWI	1	2	3	4	5	6	7	8	9	10	11	12	13	14
life		.70	.36	.58	.44	.62	.60	.34	.37	.44	.36	.17	.24	.25	.33	.23	.25
PWI			.54	.77	.64	.77	.70	.61	.63	.76	.47	.29	.42	.33	.42	.43	.28
NWI				.40	.30	.32	.31	.46	.41	.46	.69	.72	.80	.76	.68	.70	.23
1					.40	.62	.46	.41	.32	.59	.46	.21	.30	.21	.34	.27	.17
2						.50	.32	.28	.27	.34	.24	.17	.23	.21	.22	.27	.08
3							.47	.29	.39	.47	.30	.13	.28	.18	.29	.22	.18
4								.34	.35	.44	.29	.18	.22	.22	.24	.19	.28
5									.30	.43	.36	.27	.33	.22	.31	.51	.15
6										.41	.27	.21	.34	.28	.36	.33	.32
7											.39	.27	.37	.29	.31	.37	.16
8												.41	.41	.39	.46	.37	.17
9													.56	.45	.28	.34	.15
10														.57	.45	.46	.18
11															.39	.43	.16
12																.46	.17
13																	.15

** All significant at 0.01 level

Multiple regressions with Life as a whole for (T) are shown in the following Table

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[4] It is possible to consider that NWI and SWLS show high colineality as independent variables of PWI. However the analysis of tolerance and the Index of colineality which shows values less than 15 do not support this.

Table 10 Multiple Regressions with Life as a whole for Toronto

PWI	Life as A whole	1	2	3	4	5	6	B	β	t
Constant								1.062		3.70**
1.Standard	0.582							0.207	0.216	5.35**
2.Health	0.437	0.399						0.087	0.097	2.95**
3.Achive	0.619	0.620	0.501					0.242	0.262	6.62**
4.Relations	0.598	0.453	0.325	0.472				0.270	0.323	9.63**
5.Safe	0.344	0.419	0.284	0.289	0.338			0.035	0.033	1.03
6.Community	0.373	0.327	0.271	0.390	0.348	0.302		0.055	0.062	1.93
7. Future Security	0.443	0.597	0.344	0.474	0.439	0.438	0.413	-0.022	-0.024	-0.65

Adjusted R^2 = .54
Anova F= 101.72**
**significant at 0.01

NWI	Life as a whole	1	2	3	4	5	B	β	t
Constant							4.202		12.55**
1.Economic Situation	0.357						0.245	0.240	5.29**
2.Environment	0.166	0.406					-0.038	-0.042	-0.89
3.Social	0.241	0.410	0.558				0.032	0.033	0.62
4.Government	0.253	0.386	0.454	0.567			0.075	0.086	1.78
5.Business	0.329	0.462	0.274	0.442	0.391		0.197	0.174	3.75**
6. Local Security	0.222	0.367	0.334	0.461	0.429	0.450	0.018	0.018	0.40

Adjusted R^2= .161
Anova F= 20.15**

Consideration was given that some domains of NWI can be interpreted as antecedents of PWI. For this purpose, NWI is an index that is interpreted as the evaluation of citizens about their satisfaction with different contextual variables of the cities where they live. In a hierarchical regression, PWI was used as the dependent variable and the domains of NWI were introduced stepwise in each city as descriptive and explanatory different blocks to analyze if significant changes in ΔR^2 occurred when each contextual variable was introduced. Interestingly the same domains in each city showed a significant contribution: satisfaction with economic conditions, satisfaction with social conditions, security and business. The ΔR^2 for each domain was significant which means that they produce a significant contribution to the description of the dependent variable PWI. Additionally, the new

domain of satisfaction with spirituality and religiosity as an eighth domain of PWI showed significant contribution to the PWI index. This is an interesting and important result: It shows that PWI is not only explained by dispositional variables of individuals but that contextual variables of cities describe also part of its variance. The state of the economy, of social relationships, security and possibilities of doing business are important factors to explain the personal wellbeing of citizens. This result is derived from a bottom-up approach to SWB so that it implies that each citizen interprets in its own term which is the importance and significance of being satisfied with the economy, social relationships, security of the city where she lives. The interesting and important result obtained from this exploratory cross-cultural research is that contextual variables, of the city in this case, matter significantly for the citizen's wellbeing. Which is the contribution of each variable and by which mechanisms do it contribute will need to structure a conceptual and empirical agenda for research in the future.

The following Table illustrates how four domains of NWI contribute to the change in variance of SWB for the case of the three cities.

Table 11. Hierarchical Regression Analysis for PWI as Dependent Variable with NWI Domains

City	Model	R	R squared	Corrected R square	Estimation Error	Change Statistics				
						Change in R square	Change in F	gl1	gl2	Sig. del cambio en F
BH	1	.456(a)	.208	.207	1.040	.208	217.185	1	828	.000
	2	.483(b)	.233	.231	1.024	.025	27.107	1	827	.000
	3	.495(c)	.245	.242	1.016	.012	13.439	1	826	.000
	4	.503(d)	.253	.249	1.012	.008	8.294	1	825	.004
Toronto	1	.467(a)	.219	.217	1.255	.219	165.811	1	593	.000
	2	.545(b)	.297	.294	1.191	.078	65.921	1	592	.000
	3	.568(c)	.323	.319	1.170	.026	22.574	1	591	.000
	4	.578(d)	.334	.330	1.161	.011	10.161	1	590	.002
Bogota	1	.406(a)	.165	.163	1.494	.165	109.892	1	557	.000
	2	.474(e)	.224	.222	1.441	.060	42.748	1	556	.000
	3	.511(f)	.261	.257	1.408	.036	27.406	1	555	.000
	4	.527(g)	.278	.273	1.392	.017	13.178	1	554	.000

a Predictive variables: (Constant), Economic Situation
b Predictive variables: (Constant), Economic Situation, Security in City
a Predictive variables: (Constant), Economic Situation
b Predictive variables: (Constant), Economic Situation, Security in City
c Predictive variables: (Constant), Economic Situation, Security in City, Social Relationships
d Predictive Variables: (Constant), Economic Situation, Security in City, Social Relationships, Business
e Predictive Variables: (Constant), Economic Situation, Social Relationships
f Predictive Variables: (Constant), Economic Situation, Social Relationships, Security in City
g Predictive variables: (Constant), Economic Situation, Social Relationships, Security in City, Business

1= Belo Horizonte
2= Toronto
3= Bogotá

As can be seen satisfaction with economic conditions of the city, with social relationships, security in the city and possibilities of doing business in the city did contribute significantly to the model with significant changes in r squared , p≤.05. For Toronto, satisfaction with social relationships did not show a significant change in R squared , which implies that this domain is significant for the two South-american countries but not for Toronto. In relation to the regression coefficients the following results were obtained:

Table 12

NWI regressed against PWI

Ciudad	Modelo		Non standardized Coefficients		Standardized Coefficients	T	Sig.
			B	Error típ.	Beta		
1	1	(Constant)	6.141	.105		58.606	.000
		Economic Situation	.273	.019	.456	14.737	.000
	2	(Constant)	5.953	.109		54.449	.000
		Economic Situation	.233	.020	.388	11.707	.000
		Security in City	.091	.018	.173	5.206	.000
	3	(Constant)	5.744	.123		46.867	.000
		Economic Situation	.206	.021	.344	9.839	.000
		Security in City	.069	.018	.131	3.754	.000
		Social Relationships	.083	.023	.132	3.666	.000
	4	(Constant)	5.626	.129		43.722	.000
		Economic Situation	.194	.021	.324	9.124	.000
		Security in City	.055	.019	.104	2.909	.004
		Social Relationships	.069	.023	.109	2.973	.003
		Business	.055	.019	.102	2.880	.004
2	1	(Constant)	5.101	.179		28.471	.000
		Economic Situation	.362	.028	.467	12.877	.000
	2	(Constant)	4.122	.209		19.767	.000
		Economic Situation	.276	.029	.357	9.625	.000
		Security in City	.233	.029	.301	8.119	.000
	3	(Constant)	3.934	.209		18.857	.000
		Economic Situation	.236	.029	.304	7.994	.000
		Security in City	.181	.030	.233	5.973	.000
		Social Relationships	.139	.029	.189	4.751	.000
	4	(Constant)	3.640	.227		16.058	.000
		Economic Situation	.207	.031	.267	6.765	.000
		Security in City	.155	.031	.200	4.973	.000
		Social Relationships	.118	.030	.161	3.977	.000
		Business	.114	.036	.132	3.188	.002
3	1	(Constant)	5.360	.162		33.080	.000
		Economic Situation	.263	.025	.406	10.483	.000
	2	(Constant)	4.793	.179		26.827	.000
		Economic Situation	.184	.027	.283	6.777	.000
		Social Relationships	.188	.029	.273	6.538	.000
	3	(Constant)	4.603	.178		25.820	.000
		Economic Situation	.157	.027	.242	5.820	.000
		Security in City	.121	.023	.205	5.235	.000
		Social Relationships	.156	.029	.226	5.413	.000
	4	(Constant)	4.447	.182		24.488	.000
		Economic Situation	.142	.027	.219	5.247	.000
		Security in City	.096	.024	.162	3.992	.000
		Social Relationships	.135	.029	.197	4.660	.000
		Business	.090	.025	.150	3.630	.000

a Dependent Variable: PWI

Satisfaction with economic situation in Toronto is the domain that shows a higher significant correlation in all hierarchical models, followed by the domain of security, spirituality, the environment and business. These results suggest that four domains of NWI (economic situation, security, social relationships and business) may be proposed as contextual antecedent of PWI in cities, Surprisingly and interestingly, the new domain of satisfaction with spirituality is significantly regressed with PWI. These are promising results that correlate how more distal domains about contextual variables may be causes of PWI at the city level.

5. Other variables

5.1 Cultural Diversity in Cities

Toronto, Belo Horizonte and Bogotá show three different types of cultural diversity in their cities: i) strong racial integration or "mestizaje" in the Brazilian city (Da Matta, 1997), ii) high indexes of within country diversity in Bogotá as the result of a huge migration process from individuals from different cultural regions in the country to its capital city and iii) multiculturalism in Toronto as the result of huge international migration that involves different ethnicities and languages(Statistics Canada, Census of Population by selected origins, by census metropolitan areas (2001 Census) Toronto; accessed November 29, 2006). Therefore we explore if this variable could be proposed as a new domain for NWI in cities. Although the numbers were small for many of the ethnic groups, two exploratory results that were obtained indicate further research is merited: Two exploratory results were obtained: Descriptive results for PWI varied significantly in Toronto according to the ethnic origin of the respondent to the survey. However, with such a small sample size it is difficult to make a statistical argument for mean differences according to

origin here Citizens from Latin origins showed the highest results whereas Koreans and irish showed the lowest results.

5.2 Social Status

On the other hand, in Belo Horizonte, Islam & Wills (2007) measured social status (class) objectively and subjectively. Satisfaction with Life as a Whole Scale SWLS showed a significant relationship with income.   Two different measures of social class were used: objective social class (OSC) and subjective social class (SSC), or the "feeling" of being in a high, middle or low class. Past literature comparing psychological effects of income versus social class have emphasized that the latter is more reflective of lifestyle differences (e.g. Schaningler, 1981). According to Islam & Wills (2007) "Objective social class was measured using official census measures (based on a representative array of consumer goods indices used by the federal government statistical association [IBGE]), and subjective class was measured by a questionnaire item asking respondents to classify themselves between class A-E (a common colloquial way to speak about class in Brazil). Low scores indicated higher social class (i.e. 1st class, 2nd class, etc)."

The study showed that "the effect of income on SWLS was mediated by both objectively measured and subjectively measured social class.   In a stepwise regression, SWLS was regressed on income, showing a significant linear relation (β = .186, t = 2.719, p <.01).   In the second step, social class measures were regressed on income, showing a strong relation for both objective and subjective social class (OSC: β = -1.198, t = -25.498, p <.01; SSC: β = -. 594, t = -13.198, p <.01).   In the third step, both objective and subjective social class were significantly related to SWLS (OSC: β = -.117, t = -2.825, p <.01; SSC: β = -.304, t = -.5601, p

<.01). Finally, to show mediation, SWLS was regressed on income, as in the first step, but controlling for social class. Controlling for OSC, the income-SWB relationship was non-significant (β = -. 097, t = .964, p = .335). In the case of SSC, the relationship was also non- significant (β = .002, t = .027, p =.978. These effects reinforce, extend, and internationally generalize the person x situation perspective elaborated by Diener et al., (1999) "

Perceived social status may be one of the collective variables that may contribute considerably to the variance of PWI in Latinamerican cities where social class and socioeconmic status generate social injustice and a skew income distribution. Skewed income distribution may have very negative effects on satisfaction with health and goal achievements, two of the domains of PWI. Discrimination against social classes is also a common issue on these countries. Therefore this variable may entail part of the explanation found for PWI across different levels of income. Additionally, there are not available studies about the distribution of well being across groups. For Latin-American cities, distribution of well-being across social class or social status will undoubtedly contribute to our understanding of well-being.

6. Discussion. Agenda for Research

 The majority of studies done so far in relation to levels of happiness or its close correlate Subjective Wellbeing in countries, in particular Inglehardt & Baker work (2000) shows that Latin-american countries, but Colombia in particular, have high levels of happiness, despite their poorer objective conditions (income per capita, GDP per capita, income distribution, poverty and social unrest) as compared with

other countries. This leads a researcher to think that there are possibly hidden methodological design considerations either methodological problems in measurement or as well as the existence of other contextual or cultural variables in these countries that had not been considered in previous research that may explain those high levels of happiness or SWB. In this research, SWB of citizens has been used as the dependent variable rather than happiness because SWB entail an evaluation of how people think and feel about the positive or negative evaluations about how people experience their lives distinct to hedonic or instant happiness. SWB has been measured by evaluations of individuals about their personal well-being PWI and their evaluation of other contextual variables included in the NWI Index. Evaluations of factors associated with personal wellbeing PWI as well as evaluations of satisfaction with contextual variables in cities entailed by the different NWI domains have also been validated across cultures.

From the results of the two exploratory studies presented in this paper, we reaffirm and propose interesting new ideas for research: i) conceptually, we reaffirm that SWB should be seen as a multidimensional variable whose antecedents include individual traits, social and cultural variables. This proposition has been advanced also by other well-being researchers (Mc Gregor, 2006; Gough, Mc Gregor & Camfield, 2006). In this relation, we propose that the more distal index developed by Cummins et al (2004) – the NWI index, may be understood as the subjective appraisal of satisfaction of citizens with contextual variables including economic conditions, social relationships, state of the natural environment, government, business and security in the city. We hypothesize that some domains of NWI can be interpreted as a contextual antecedent of PWI which is a more personal-linked

index for individuals. Although these two indexes have been tested in different cities by the International Wellbeing group, domains of NWI have not been researched as antecedents of SWB before this study. The comparative results of this cross-cultural analysis show that the same domains of NWI describe and may explain some of the variance found in the PWI index which gives a first idea for validating this hypothesis. The rationale for explaining the contribution of four domains of NWI to PWI variance in cities is as follows: The NWI Index can be interpreted as the aggregation of contextual variables in cities as evaluated directly by their inhabitants. These contextual variables provide a framework to obtain increasing or diminishing resources for citizens to adjust their decisions related to their quality of life. For instance, citizens evaluate and appraise increasing resources allowed by the contextual variables comprised in the NWI index and they state how they feel and think about their satisfaction with these variables. This evaluation will widen or restrict the possibilities for individual's choices and elections (see Gugh, Mc Gregor & Camfield , 2006). Increasing alternatives for citizens to choose and elect, or what Sen (1989, 2000) has named in his view of development as freedom, increases in individual's functioning's, heightens the possibilities for greater achievements in life (See for instance, Welzel, Ingelhardt, Klingelmann, 2002). An achievement in life is an important domain of PWI and it has shown to add significant statistical contribution to explaining satisfaction with life as a whole SWLS (Diener, 1983). Achievements in life can be framed in a prospective or preventive focus (Higgins, 1994). From a prospective view, greater achievements in life can occur due to increased choices and elections. From a preventive point of view, achievements can occur due to the adaptation of

individuals to contextual conditions, particularly in those environments where deprivation and social unrest occur. Some authors have explained this relationship in terms of adaptive preferences, treadmill effect (Brickman, 1978) or homeostasis theory (Cummins and Nistico, 2002, Parducci, 1995). Homeostasis theories (Cummins, 1996) states that people's levels of SWB fluctuate around a in-built set point for each person , so that people who go through life-altering events return to their homeostatic level, which is mainly determined by personality (Brickman et al., 1978, Kahnemann, 1999). The proper functioning of this homeostatic level is crucial for each individual's well being. At normal levels of well being (around 75 according to Cummins, 1996) people feel good about themselves, and are optimistic and willing to take risks to achieve personal goals. Therefore it is expected to find differences in SWB across cities and nations. Cummins and colleagues (2004) have provided the following explanation: When the homeostatic level fails, due to improper provision of material and psychological goods in cities, the essential qualities of life may be compromised. According to Cummins and colleagues (2004) this can result from circumstances created by distress, chronic pain, failed personal relationships, failed security and failed relations with the community in which the person lives. In these cases, we hypothesize that higher (lower) values of NWI are expected to correlate with higher (lower) values of PWI. In this later view, adversity as a characteristic of the context of a particular city may contribute to higher resilience (See Gugh et al., 2006) and the expression of more realistic goals and by this way, the attainment of the goal may lead to higher satisfaction despite adversity as compared to unrealistic goals that individuals pursue in more richer objective environments. This mechanism involves the

possibility to individuals to adapt their expectations and goals to their objective or real conditions of life so as to frame their goals according to the possibility of achieving them. Through the operation of this mechanism it is possible to generate a level of satisfaction that otherwise could not be fulfilled. The evaluation of contextual variables as expressed in the NWI index (how individuals think and feel about them) provides a basis to understand SWB from a collective or social point of view. These explanatory domains are complementary to the dispositional variables, particularly personality and optimism, which play an important role in explaining the SWB of individuals. When individual evaluations of SWB are aggregated at city levels they express how SWB is assessed at that level and differences in the results of PWI across different contexts can be found. Nevertheless, aggregation of scores about what an individual feels and thinks over the different domains of wellbeing at the city level may generate what methodologically is called an ecological fallacy. This is a recognized error in interpretation of data that can lead to false generalizations about the level of SWB of individuals based on the average obtained for the city. That is to say, the fact that in average the level of SWB was significantly higher in Bogotá as compared to Toronto and Belo Horizonte does not exclude the possibility that many individuals in Bogotá have lower levels for SWB in the same city. Therefore, inferences should not be made at that level of analysis.

Methodologically, we suggest that future research explore issues of individual versus city-based SWB using multilevel models. In this study, we go about establishing city-based effects. However, since individual effects are nested within citites, which in turn are nested within countries, and since both individual

differences and country level effects have been established in the past, future research should try to separate more cleanly these three levels of analysis. One way to do this would be to sample from different cities with each country. An related line of research would be to explore whether the antecedents of SWB are identical or divergent at the individual, city, and country levels.

Four domains of NWI, the same for the three cities showed significant contributions to PWI. These results are particularly interesting and important if one considers that SWB is not exclusively determined by personality factors but considers on the contrary that cultural and historical factors in nations and cities play an important role for explaining differences between societies. Four contextual domains were found to contribute significantly to NWI: i) the economic condition of the city, ii) the quality of social relationships, iii) security in the city and iv) the possibility of doing business. Nevertheless, the quality of social relationships did not show a significant contribution in the R square change for the case of Toronto, pointing those cultural differences between Latin countries and the Canadian city may exist in relation to the importance each individual gives to the quality of her social relationships contributing for their SWB. The high quality of close social relationships with families and social networks in Brazil and Colombia provide the needed feeling of security and new possibilities to overcome social vulnerabilities that objective conditions in those cities do not provide. For more collectivistic countries as Brazil and Colombia (Hofstede, 2005), the quality of social relationships, the extent and strength of social networks and possibly the extent of trust (although, other studies have shown contradictory results in term that trust levels are very low in Latin America) should weight more in those cities than for the citizens of Toronto-

Canada, a country that displays higher levels of individualism according to Hofstede (2005).

For future research, It is also possible to explore other contextual variables, including culture which may contribute to describe and explain part of the variance of the values of PWI in citizens. Culture, history, endowments, etc may also play an important role in determining SWB which leads to a second stream for future research:

ii)cultural diversity may be seen as an additional variable to the NWI index and as such, contribute in explaining the levels of PWI found in cities. The three cities of our study share a particular contextual variable that has not been fully explored in subjective wellbeing research: their ethnic or cultural diversity (see Michalos, 2002). For instance, the high diversity indexes of Colombia (high biodiversity, since Colombia is the second largest bio-diverse country in the world, as well as its cultural and regional diversity, seen as a product of the history and geography of the country may express in language diversity, arts and creativity). It is possible to find high indexes of diversity of the capital city Bogotá as a product of a huge urbanization process in the country in the last 40 years which attracted individuals from the different regions of the country to its capital. On the other hand, Brazil shows higher levels of "mestizaje", ethnic and racial mixture which gives way to another type of cultural diversity in brazilian cities (DaMatta, 1997). Canada is a country that has pursued an official policy of multiculturalism and openness to international migration. Toronto is the most multicultural city of the world. This type of diversity may lead to more or less integration and social cohesion which in turn could significantly affect the subjective wellbeing of their inhabitants.

A previous finding in the scarce research that was found in that respect shows, perhaps surprisingly, that nations which are homogenous in ethnicity, religion and language do not have higher levels of SWB than heterogeneous nations (Inglehardt, 2002). Therefore, to explore possible correlations between cultural/ethnical diversity and wellbeing and try to understand particularly the direction of those relationships is of interest for SWB research. Literature from different disciplines (sociology (Florida, 2005), and Organizational Behavior (Amabile, 1998)) have shown that if diversity is well understood and managed it can lead to higher levels of creativity at the individual organizational or social level. On the other hand, diversity that is not well understood and managed, can lead to escalating conflict and disturbances at the group or social level. These in turn should have a negative impact for the SWB of citizens. Cultural/ethnic diversity as a contextual variable is related particularly to questions of social inclusion and exclusion, identity and trust at the city level. Different conceptual and empirical approaches have given contradictory relationships between cultural diversity and wellbeing. Cultural diversity may contribute to wellbeing through the formation of a more pluralistic society which fosters SWB. A more pluralistic society will foster integration and more harmonious social relationships. On the other hand, cultural diversity may induce greater in-group bonds and solidarity, creating at the same time exclusion for other out-groups. In this latter case, conflict, prejudice and discrimination may appear with the consequence of lowering the individual sense of wellbeing. These contradictory findings may be obtained because cultural diversity influences SWB through the operation of two different types of social capital: Bonding and bridging. The first one contributes to the establishment of

more homogenous city environments which in turn may strengthen strong linkages between in-groups (particularly family members) but at the same time may exclude other out-groups. The second kind of social capital may give rise to more pluralistic societies through the proliferation of weak ties of networks creating a more inclusive social environment for SWB.

The three cities considered for comparative analysis have different types of cultural/ethnic diversity. Toronto is one of the most multi-ethnic diverse city in the world, where more than 40% of its population has been born outside of Canada. Cultural diversity is the result of international migration. Bogotá is also a highly diverse city but as a result of within country migration. Colombia is a multiethnic, pluri-cultural country with many diverse region and cultural diversity. A huge migration process linked to urbanization has brought people from all over the country to the capital Bogotá. Thirdly, Belo Horizonte, a larger city in Brazil, a country characterized by its ethnic integration- through "mestizaje". It is interesting to further explore how these different types of diversity may correlate on a positive or negative relation with SWB. An ethnic (cultural) group is a distinct category of the population in a larger society whose culture is usually different from its own. It is possible to signal a multiplicity of factors such as language use, religious practice, choice of in-group, participation in ethnic associations, etc… to be found in such diversity. Belonging to a cultural group may build self-esteem and self-confidence, and higher trust in individuals.

In previous research, it has been shown that social capital or the quality of the social relationships is an important causal variable explaining SWB. Here, a bonding type of social capital is understood (strong ties with family members and

close neighborhoods). But, cultural diversity in a city may also generate bridging social capital: weak ties or loose networks of weaker linkages between different groups with different identities. So, it is possible that homogenous societies or cities may tend to have more social exclusion of certain groups. On the other hand, a more pluralistic, diverse society may have less social exclusion across ethnic groups. It is easier to be included in a society which is less homogenous and which places less emphasis on bonding social capital: togetherness, reciprocal obligations, shared identities among the inner group.

In the globalized world of today, ethnicity and particularly multiculturalism becomes an increasingly important concept, particularly for cities even more than nations, and it manifest its importance in moments or periods of crisis. So a tension emerges: Is high SWB a result of bonding (in-group) social capital or bridging weak ties with other groups. How does cultural diversity add to one or the other? And what kind of social cohesion does make a larger, significant contribution to SWB? Exploratory and preliminary results of this study suggest that this is a new domain for consideration. The concept of ethnic group is almost inescapable for social science because it is full of ambiguity (Weber, 1976). The question Weber posed was how to demarcate ethnicity from other categories (national, racial, cultural, and religious). Does ethnicity and particularly integration of different cultural identities within a city promote an environment for wellbeing or on the contrary does it promote prejudice, discrimination and conflict with negative consequences for quality of life and wellbeing of citizens.

According to Phillips (2006) social order may be the result of values more than interests. If it is so, perceived social cohesion becomes a key concept to SWB and

it can be the result of distinct kinds of cultural diversity in cities. The question becomes if cultural diversity within a city does promote higher levels of social cohesiveness? For example, cohesiveness within a particular ethnic group may lead to prejudice and discrimination. Comfort with the members of one's group may lead to discomfort and prejudices with people outside the group. We propose this hypothesis for future research and it be tested with the use of different indexes of cultural diversity: one emerging from international migration (strong diversity) as in Canadian cities and other index that considers internal migration within a country (weak diversity) as in the case of Colombian cities. For this purpose, indexes of heterogeneity of social networks and homogeneity of culture and xenophobe as indicators of cultural diversity should be developed and validated.

 iii) a new stream of research should extend the result of the significant contribution of satisfaction with spirituality to PWI, a result that was validated in other cultural contexts distinct from the first city-Bogotá- where significant results were obtained, in the case of Toronto and Belo Horizonte. The objective of this research was to develop a valid scale that taps spiritual and religious believes across countries where people hold different world views across different cultural settings. Results showed that the measure had good psychometrics qualities and provide evidence for the importance of these domains for people quality of life and wellbeing (Saxena, O'Conoll & Underwood, 2002). If satisfaction with spirituality is a significant contributor to satisfaction with life as a whole, a question that must be responded empirically, a different approach to hedonic wellbeing is needed. In this debate, the eudaimonic philosophical approach contributes with important elements. Various philosophers from Aristotle on (Adler, 1978) have stressed the

importance of considering a reflective rather than a momentary approach to wellbeing. In this approach, measure of happiness from an hedonic point of view are not sufficient to fully evaluate the quality of life of societies because people have final values and ends to which they ascribe and tend to fulfill in addition to simply avoiding pain or feeling pleasure at particular events. Eudaimonism sees happiness in terms of meaning and self realization and defines wellbeing in terms of how a person is fully functioning (Ryan & Deci, 2005),

From these propositions it is possible to suggest a research agenda to develop a conceptual framework based on an understanding that: i) the value of individual subjective wellbeing aggregated by cities is more and it is different than individual happiness, although closely related, ii) contextual variables, in particular cultural variables play an important role in explaining SWB. That is to say, contextual variables are seen as antecedents of the individual's SWB results and iii) this causal explanatory mechanism operates across cultures.

For testing these assumptions we have a set of valid and reliable measures at both the individual and city level to be applied in cross-cultural comparisons of cities.

Literature on subjective or inter-subjective wellbeing is diverse and interdisciplinary. It is a broad concept studied by different disciplines, particularly sociology, social-psychology, development studies and philosophy. The agenda for research tries to articulate views from sociology (social cohesion, social capital, and cultural diversity) with social psychology (SWB) in order to develop an understanding of SWB both from an individual and social (collective) perspective.

In relation to SWB, a measure in line with an eudaimonic rather than an hedonic approach is proposed. This means that wellbeing from a citizen understanding or

point of view, stresses the human flourishment aspect of it rather than the hedonic instant pleasures from decisions. SWB privileges also a bottom up approach rather than a top-down approach. It is argued in line with Phillips (2006) that subjective wellbeing discussion should be framed under both individual and social (collective) variables stressing that cities are essentially social so that elements such as obligations, norms, solidarity, trust, social cohesion, inclusion and exclusion and others should be considered and understood as antecedents for the subjective and inter-subjective wellbeing of their inhabitants.

Appendix

Ethnic Differences for PWI in Toronto

Informe

PWI

And finally, to which	Media	N	Desv. típ.
Canadian	7.4216	164	1.55785
Chinese	7.3695	29	.95184
Dutch (Netherlands)	7.2857	1	.
East Indian	7.3469	7	1.11226
English	7.4250	40	1.36622
Filipino	7.4286	4	.60609
French	7.0000	4	1.54744
German	7.2143	4	.82890
Greek	7.7679	8	1.59251
Hungarian (Magyar)	7.1429	1	.
Irish	6.9881	12	1.30000
Italian	7.2476	15	1.15108
Jamaican	4.7857	2	1.71726
Jewish	7.8571	15	1.11966
Korean	6.0000	1	.
Latin America	8.0714	2	.10102
Pakistani	7.5238	3	.45922
Polish	4.3929	4	2.77348
Portuguese	8.1190	6	1.17601
Russian	7.1020	7	.75914
Scottish	7.9286	14	1.12311
Spanish	8.1786	4	1.26370
Sri Lankan	8.2857	3	1.07855
Ukrainian	7.7857	6	2.18856
Vietnamese	6.7143	1	.
West Indian	8.2381	3	1.00340
None in particular	5.4571	5	2.56229
Other: [RECORD]	7.1782	222	1.34354
Declined to say	7.3810	12	.79501
Total	7.3110	599	1.41876

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