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Quality of Life in Quesnel, British Columbia¹

by

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Abstract

The main aim of this research was to discover and explain citizen beliefs and attitudes about the quality of life in Quesnel, British Columbia based on a random sample of 642 households in the spring of 2000. Highest levels of satisfaction were reported for living partners, family relations and the river-front trail system. Highest levels of dissatisfaction were reported for drug and alcohol abuse in the area, availability of public washrooms and air quality. The best thing about living in Quesnel was the friendliness of the people and worst thing was the air quality. The thing they would change first to improve the quality of their lives was the air quality. About 71% of respondents thought relatively greater shares of their tax dollars should be spent on regional and city road maintenance and repair. Eighty-one percent of respondents thought consideration should be given to using tax dollars to provide new services in post-secondary education and for a north/south highway connector. On the whole, American samples reported relatively more Good Health Days than the Quesnel sample, and the latter was on the whole better than a northern British Columbia sample. Using a standard battery of domain satisfaction items, we were able to explain 37% of the variance in reported happiness scores and to compare results with those from nine other surveys using the same items. Using five satisfaction indexes created from 85 items in the current survey, plus the standard battery, Good Health Days, a General Health measure and household income, we were able to explain 40% of the variance in reported overall happiness, 50% in satisfaction with the overall quality of life and 65% in satisfaction with respondents' standard of living.

1. Introduction

The structure of the essay is as follows. In the next section (2), we describe our sampling technique and questionnaire. Then we move to a description of our sample (3) and descriptive statistics regarding satisfaction levels for a variety of public services and other aspects of life (4). Section (5) summarizes responses to our open-ended questions about the best and worst things about living in Quesnel, and things to change to improve the quality of life there. This is followed by a section (6) in which we review respondents' attitudes toward redistributing their tax dollars and undertaking new initiatives. In the next section (7), we give results of some health status measures and compare them to results from the USA and two provincial surveys. We then (8) explain happiness using domain satisfaction measures that allow us to compare our results with those from nine other surveys. In section (9), we explain three global dependent variable scores (happiness, satisfaction with the overall quality of life and with one's standard of living) from five satisfaction indexes, several domain satisfaction scores, health status and household income. The final section (10) is a brief conclusion.

2. Sampling Technique and Questionnaire

Eight-page questionnaires were mailed out to a random sample of 2500 households in the city and area immediately surrounding the city of Quesnel in April 2000.

The first two and one half pages of the questionnaire listed 85 services and a variety of aspects of people's lives, including such things as family support services, snow removal, the cost of local housing, family relations, health, jobs and so on. The extent to which people were satisfied with these things was measured on a 7-point Likert scale with response categories ranging from "very dissatisfied=1 point", through "an even balance=4", to "very satisfied=7".

Following these questions, there was a question designed to measure the extent to which people were happy with their lives as a whole, ranging from "very unhappy=1 point", through "an even balance=4", to "very happy=7".

This was followed by a page containing a general question designed to measure the extent to which respondents would like to see the distribution of tax funds changed so that relatively less, more or the same amount would be spent on 35 public services. The response categories were "less=1", "same=2" and "more=3".

Then a list was presented of 18 possible new initiatives that the government might undertake with tax dollars (e.g., build a performing arts theatre), and respondents were asked to say whether they thought the initiative "does not merit consideration=1",

“does merit consideration=2” or “is impossible to decide one way or the other=0”.

There were a couple questions asking how respondents would like to be consulted about new initiatives (e.g., through surveys or town hall meetings) and how they usually obtained information about City Council programs and services (e.g., newspapers or television).

These were followed by two open-ended questions asking respondents, first, to describe the “best thing about living in this community”, and then “the worst thing”. Respondents were then asked, “If you could change anything about this community to improve the quality of life here, what would that change be?”

There were then four self-reported health items designed and used extensively by the U.S. Center for Disease Control and Prevention (CDC) in all of the 50 states. An example of one of these items is “Would you say that in general your health is (a) excellent, (b) very good, (c) good, (d) fair or (e) poor?”

After those items there was a page of questions headed “Odds and Ends” that asked about respondents’ shopping habits in and out of Quesnel, about the appropriateness of using municipal tax dollars for things like diversifying the local economy and about services for people living in poverty.

Finally, there was a page of demographic questions about respondents’ gender, age, education, employment, income and marital status.

3. Sample Characteristics

By mid-May, 642 (26%) useable questionnaires were returned, which form the working data-set for the survey. A simple random sample of this size should be accurate within plus or minus 4 percentage points 19 times out of 20.

Respondents identifying their gender included 326 (53%) females. Three-hundred and ninety-nine (63%) were married and living with their spouse. The average age was 49, with a range from 20 to 94. Fifty-seven (9%) had some university education, and another 86 (14%) held a university degree. Four hundred and sixty-seven (75%) identified their cultural/ethnic backgrounds as Canadian and another 19% identified their backgrounds in a hyphenated way as, for example, French-Canadian or European-Canadian. Four percent (24) had aboriginal or metis backgrounds. Two hundred and seventy (44%) were employed full-time and 61 (10%) part-time. The average household income before taxes was \$58,019.

According to the 1996 census, which is the last official full population count available from Statistics Canada, 52% of Quesnel’s adult residents aged 15 years or older were female. Eight percent held a university degree, 56% were employed full- or part-time, and the average family income was \$55,225. Broadly speaking, then, our

working sample is fairly representative of the total population of Quesnel, although we have a few more people with university degrees.

4. Satisfaction

Exhibit 1 lists the mean scores for the 85 satisfaction items and the one happiness item. The most satisfying aspects of people's lives were satisfaction with their living partners (*mean*=6.3), the river-front trail system and family relations (5.9 each), friendships (5.8) and city beautification (5.7).

Highest levels of dissatisfaction were expressed for drug and alcohol abuse in the area (2.6), availability of public washrooms (2.8), air quality (2.9), regional road maintenance and repair (3.1), city road maintenance and repair (3.2) and downtown parking spaces (3.2).

Given 85 satisfaction items, it seemed reasonable to undertake some data-reduction strategies in order to get a more manageable set of variables to explain and predict our three global indicator scores (satisfaction with one's overall quality of life, satisfaction with one's standard of living and overall happiness). We conceptually analyzed our items, sorted them into logically coherent clusters and then created indices on the basis of acceptable Cronbach internal-consistency alpha values. Mean scores for each item in an index were summed and the average value of those means was taken as the index score. So each index had a score ranging from 1 to 7, just as the individual satisfaction items. The 5 indices resulting from these exercises with their mean scores, alpha values, constituent items and item-total correlations are also listed in Exhibit 1. Briefly, we created a Leisure Satisfaction Index (16 items, $\alpha = 4.7$, $r = .93$), Education Satisfaction Index (4 items, $\alpha = 4.3$, $r = .89$), Health Services Satisfaction Index (3 items, $\alpha = 4.2$, $r = .86$), Government Services Satisfaction Index (27 items, $\alpha = 4.2$, $r = .94$) and a City Ambiance Satisfaction Index (21 items, $\alpha = 4.1$, $r = .90$).

5. Best Things, Worst Things and Things to Change

The open-ended items were analyzed using NVIVO, a computer program for qualitative analysis. For our respondents, the most frequently mentioned "best thing about living in Quesnel" included the friendliness of the people (27% of all the things mentioned), size of the community (20%), its beauty (9%), financial issues (e.g., secure industrial base, affordable housing and living, 9%) and access to outdoor activities (7%).

The most frequently mentioned "worst thing about living in Quesnel" was the air pollution (30% of all the things mentioned). Following that at some distance, respondents mentioned traffic congestion and retail issues (9% each), substance abuse

(7%), and jobs, crime and health care (6% each).

Having determined the things about life in Quesnel that were especially good and especially bad, we wanted to find out what respondents "would change to improve the quality of life" there. The most frequently mentioned change was in the air quality (17% of all the things mentioned). Then there was a cluster of different things, including the economy, health issues (more doctors, better hospital), social issues (better daycare, control alcohol problem), north-south interconnector and crime (10% each).

6. Spending Preferences and New Initiatives

Exhibit 2 lists the percentages of respondents preferring a re-distribution of tax dollars for less, same or more spending in various areas. There were only five areas out of 35 listed in which a majority of respondents indicated that they would like to see an increase in expenditures. Seventy-two percent of those sampled thought that relatively more tax dollars should be spent on regional road maintenance and repair, and 71% thought more should be spent on city road maintenance and repair. Sixty-two percent thought more should be spent on public washrooms in the city, 52% thought more should be spent on police protection and 51% thought more should be spent on regional snow removal from roads.

There were no areas out of the 35 listed in which a majority of respondents indicated that they would like to see a decrease in expenditures. In fact, there was only one item that attracted over twenty percent of respondents favouring decreased spending. Twenty-two percent thought there should be less spending on local government administration.

Exhibit 3 lists the percentages of respondents saying that the idea of providing new services in various areas through government taxation did not or did merit serious consideration, or that it was impossible for them to decide given their current information. Two suggestions attracted 81% of respondents' support for further consideration, namely, expanded post-secondary education opportunities and the Quesnel north/south inter-connector. A community health centre and a hospice house each attracted 78%. On the other hand, 67% of respondents did not think a third ice surface merited further consideration.

In response to the question asking how they would like to be consulted regarding the development of new initiatives, 67% preferred to have broad surveys like the current one. Respondents were allowed to indicate more than one preference, and 46% opted for town hall meetings while 33% opted for presentations by City Council.

Eighty-one percent said they read local newspaper articles for information regarding City Council programs and services, and 63% said they got information

through word-of-mouth. Forty-one percent used the local newspaper City Page Advertisements.

7. Health

In response to the first item from the CDC, about 86% of the people in our sample reported that their general health was good to excellent. This was a higher percentage than the 82% reported for both northern (N=969) and southern (N=499) residents of British Columbia in our survey of December 1999 (Michalos and Zumbo, *tbp*).

The second two items distinguish physical and mental health, and ask people to indicate the number of days out of the past 30 that their health was *not* good. The mean number of 'good health days' in the past 30 days for an individual is then calculated by simply summing the mean number of not good physical and mental health days and subtracting the sum from 30, with the constraint that zero is the least one could score.

Using data from the CDC Behavioral Risk Factor Surveillance System for 1998, we are able to compare results in Quesnel with results from the 50 states of the USA plus Washington, D.C. and with results from British Columbia, according to gender and age. The last row of Exhibit 4 shows that, taking the groups as a whole, the sampled American men and women reported on average relatively more good health days in the past 30 than the sampled men and women of Quesnel. This is also the case for three of the four distinct age groups. For the group aged 50 to 64, the Quesnel figures for men and women indicate that they had about a third of a day more of good health than the Americans. Compared to the results for northern British Columbia, on the whole Quesnel men and women had relatively more good health days, and compared to the southern results, Quesnel men had more good health days while Quesnel women did not (last row). For every age group except those aged 65 years and older, Quesnel men and women had more good health days than other northern British Columbians. Comparisons between the four age groups for Quesnel and southern British Columbians are very mixed. For men and women 65 years and older, southerners had more good health days than those in Quesnel. For men and women aged 35 to 49, those in Quesnel had more good health days than southerners. For women aged 18 to 34 or 50 to 64, those in the south had more good health days than those in Quesnel. For men aged 50 to 64, those in Quesnel had more good health days than those in the south, while for those aged 18 to 34 there was no difference between those in Quesnel and those in the south.

8. Explaining Happiness with Life as a Whole from Selected Domain Satisfaction Items

Exhibit 5 provides some comparative figures from ten surveys taken over 20 years resulting from regressing mean happiness scores on mean scores for satisfaction with various domains of life. The simple linear model used to obtain these figures was one of the first models applied by social indicators researchers and it is still one of the most frequently used models (Michalos 1991). It is based on the idea that people's overall or global levels of happiness are the result of some sort of combination of the satisfaction that they get from different aspects of their lives. The model allows one to precisely measure the impact of satisfaction with, for examples, people's family relations, housing and jobs on their perceived overall happiness with life.

On average, for the ten samples represented in Exhibit 5, we were able to explain 37% of the variance in reported happiness from some subset of the 16 predictor variables listed in the exhibit. Our best success came from the sample of southern British Columbians in 1999 (column I), at 47%. When all variables are standardized to have means of zero and standard deviations of one, the standardized regression coefficients (Betas) measure the percent of movement in the dependent variable when a predictor variable moves one full unit and every other predictor in the set is held constant. For example, under column I one finds that the Beta value for self-esteem is $\beta = .29$, which means that for every full standard deviation increase in satisfaction with one's own self-esteem, one's happiness increases about 30% of a standard deviation. Figuratively speaking, this means that for every full step increase in how good one feels about one's own self, one's overall happiness goes up nearly a third of a step. Inspection of the other figures in that column reveals that satisfaction in no other domain had as great an impact on overall happiness for the 348 southern British Columbian respondents.

Reading across the row to the right from $\beta = .29$, one sees that satisfaction with one's own self-esteem was also the strongest predictor of happiness for the 370 residents in the Quesnel sample (column J, $\beta = .23$), for the 713 residents in the northern British Columbian sample (column H, $\beta = .38$), for the 210 Jasper residents in the 1997 sample (column G, $\beta = .25$), for the 466 Prince George residents sampled in 1997 (column F, $\beta = .27$) and for the sample of 296 University of Guelph students in 1984 (column D, $\beta = .31$). That Guelph sample was part of a global student sample whose results are listed in column E. Inspection of that column shows that satisfaction with one's living partner was the strongest predictor of happiness for the 5036 students in the global sample (column E, $\beta = .18$).

For the other three samples, satisfaction with one's self-esteem was also not as

powerful a predictor as (had less explanatory power than) satisfaction with one or more other domains. For the 312 sampled members of the office, clerical and technical staff of the University of Guelph (column A), satisfaction with one's family relations had the greatest explanatory power ($\beta=.38$). For the 273 sampled rural seniors in Turnberry Township, Ontario (column B), satisfaction with their living partners had the strongest predictive strength ($\beta=.30$) and for the 328 residents of Cochran, Ontario (column C), satisfaction with their financial security had the greatest explanatory power ($\beta=.21$).

The figures just reviewed clearly illustrate the fact that different groups of people with different life circumstances, resources and constraints use different mixtures of ingredients to determine their happiness. The explanatory model used here allowed the groups represented in Exhibit 5 to draw satisfaction from roughly the same set of 16 domains. Analytically speaking, some groups used more and some used fewer of these domains to build their happiness. The Jasper group used only 3 of the 12 possibilities open to them, the Quesnel group used 5 of 15 and the rural seniors used all 12 of 12 open to them.

It is worthwhile to mention also that although 9 of the 10 surveys included religious or spiritual fulfilment satisfaction in the list of potential predictors, this variable had a statistically significant impact on happiness for only 3 of the samples. Religious satisfaction was most influential in the Quesnel sample (column J, $\beta=.15$), and quite a bit more influential than it was in the Cochrane sample (column C, $\beta=.03$) and the rural seniors sample (column B, $\beta=.01$).

9. Explaining Happiness, Satisfaction with the Quality of Life and Satisfaction with One's Standard of Living from Selected Satisfaction Items and Indices

Exhibit 6 gives the results of regressing the three dependent global variables (i.e., happiness, satisfaction with the quality of life and with one's standard of living) on the 5 satisfaction indices, 13 domain satisfaction items (marked with 'x' in Exhibit 1), Good Health Days, General Health (single CDC item) and household income. We were able to explain 40% of the variance in reported overall happiness, 50% of the variance in reported satisfaction with the overall quality of life, and 65% of the variance in reported satisfaction with one's standard of living.

Perhaps the most interesting discovery from these regressions is the fact that only satisfaction with one's financial security had a significant role to play in explaining all three dependent variables. That means that our statistical analyses revealed that people drew on different aspects and domains of their lives to construct their overall happiness, satisfaction with the quality of their lives and with their standard of living.

In other words, as people reflected on their whole lives from the point of view of what they regarded as happiness or the quality of life or living standards, different aspects of their lives entered the picture and became the building blocks with which they constructed their overall views.

Regarding overall happiness, the relative number of Good Health Days in the past 30 had the greatest influence ($\beta=.25$), followed closely by satisfaction with one's self-esteem ($\beta=.23$), and then a cluster including satisfaction with one's spiritual fulfilment ($\beta=.14$), family relations and financial security ($\beta=.13$ each). Least influential (of those that were statistically significant at all) was the City Ambiance Index ($\beta=.10$).

For satisfaction with the overall quality of life, financial security satisfaction and the City Ambiance Index were equally influential ($\beta=.23$ each). These were followed by satisfaction with self-esteem ($\beta=.19$), family relations ($\beta=.16$), health ($\beta=.13$) and Good Health Days ($\beta=.10$).

For satisfaction with one's standard of living, as one might have expected, financial security satisfaction dominated the set of significant predictors by a wide margin ($\beta=.48$). Traditionally, the economists' idea of a standard of living seems to have been connected to material or consumer goods that could only be obtained if one had some financial resources. Five of the six significant predictors of standard of living satisfaction are directly related to financial resources. The other four are satisfaction with one's health ($\beta=.17$), housing ($\beta=.12$), neighbourhood ($\beta=.11$) and household income ($\beta=.08$). It is remarkable that spiritual fulfilment satisfaction found its way inside this relatively materialist conceptual net ($\beta=.15$).

When sociologists and psychologists began doing research on the quality of life in the 1960s, they believed that the idea of a standard of living was much too narrow to capture the broad range of things that were important to people. The results displayed in Exhibit 6 clearly reveal the accuracy of the sociologists' and psychologists' intuitions. Insofar as one thinks about conceptualizing or summarizing one's life in terms of a standard of living, one does tend to neglect very personal and important things like one's own self-esteem and family relations, and the ambiance of the city in which one spends so much of one's time.

10. Conclusion

The main aim of this research was to discover and explain citizen beliefs and attitudes about the quality of life in Quesnel, British Columbia based on a random sample of 642 households in the spring of 2000. We explored people's satisfaction with a wide variety of aspects of their community and their lives. Highest levels of satisfaction were reported for living partners, family relations and the river-front trail

system. Highest levels of dissatisfaction were reported for drug and alcohol abuse in the area, availability of public washrooms and air quality. In respondents' own words we discovered that the best thing about living in Quesnel was the friendliness of the people and worst thing was the air quality. The thing they would change first to improve the quality of their lives was the air quality. About 71% of respondents thought relatively greater shares of their tax dollars should be spent on regional and city road maintenance and repair. Eighty-one percent of respondents thought consideration should be given to using tax dollars to provide new services in post-secondary education and for a north/south highway connector. On the basis of health items borrowed from the U.S. Center for Disease Control Behavioral Risk Factor Surveillance System, we were able to compare the Quesnel sample to American norms and to samples of northern and southern British Columbians by age and gender. On the whole, the American samples reported relatively more Good Health Days than the Quesnel sample, and the latter was on the whole better than the northern British Columbia sample. Using a standard battery of domain satisfaction items, we were able to explain 37% of the variance in reported happiness scores and to compare results with those from nine other surveys using the same items. Using five satisfaction indexes created from 85 items in the current survey, plus the standard battery, Good Health Days, a General Health measure and household income, we were able to explain 40% of the variance in reported overall happiness, 50% in satisfaction with the overall quality of life and 65% in satisfaction with respondents' standard of living.

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Exhibit 1. Mean satisfaction scores and index* item-total correlations

	<i>Mean</i>	<i>Item-Total Correlation</i>	<i>Satisfaction Index</i>
Library	4.7	.51	Leisure
City parks	5.1	.57	Leisure
City playgrounds	4.8	.53	Leisure
Social and recreational facilities for seniors	4.6	.55	Leisure
Recreation activities for youth	4.2	.73	Leisure
Recreation activities for adults	4.5	.80	Leisure
Recreation activities for families	4.3	.80	Leisure
Sports facilities	4.7	.65	Leisure
Support for organized athletics	4.6	.62	Leisure
City garbage collection	5.3	.60	Gov. Services
City water supply	5.5	.62	Gov. Services
City sewage treatment	5.4	.69	Gov. Services
Elementary education in the area	4.4	.71	Education
Secondary education in the area	4.4	.79	Education
Post-secondary and adult education in the area	4.3	.80	Education
Post-secondary education campus facilities	3.9	.70	Educatin
Facilities for music, theatre and art	3.6	.59	Leisure
Support for public music and theatre performances	3.6	.58	Leisure
Police Protection	4.6	.57	Gov. Services
Fire Protection	5.3	.62	Gov. Services
City road maintenance and repair	3.2	.56	Gov. Services
City snow control/removal from roads	4.3	.68	Gov. Services
Regional road maintenance and repair	3.1	.49	Gov. Services
Regional snow control/removal from roads	3.7	.57	Gov. Services
City street lighting	4.6	.66	Gov. Services
City storm drainage	4.4	.62	Gov. Services
Land use planning	3.7	.63	Gov. Services
By-law enforcement	3.7	.47	Gov. Services
Condition of city sidewalks	4.2	.62	Gov. Services
Snow removal from city sidewalks	4.6	.66	Gov. Services
Landscaping of city boulevards and other city public lands	5.7	.50	City Ambiance
Promotion of the city	5.1	.51	City Ambiance
City animal control	3.9	.43	Gov. Services
Local government administration	4.2	.58	Gov. Services
Recycling service	4.7	.50	Gov. Services
Museum services	5.3	.39	Leisure
City beautification	5.7	.54	City Ambiance

Your house, apartment or mobile home		5.6	x	
Your neighbourhood as a place to live	5.4		x	
Quesnel as a place to live		5.3	.57	City Ambia
Your family relations, generally	5.9		x	
Your living partner		6.3	x	
Your job		5.4	x	
Your friendships		5.8	x	
Your health		5.5	x	
Your religion or spiritual fulfillment		5.4	x	
Your overall standard of living	5.3		x	
Your financial security	4.7		x	
The physical beauty of Quesnel		5.3	.54	City Ambiance
Air quality in the area		2.9	.49	City Ambiance
Downtown parking spaces		3.2	.41	City Ambiance
Availability of city public washrooms	2.8		.45	City Ambiance
Your recreation activities		4.8	x	
Accessibility of recreation activities for yourself	4.9		.75	Leisure
Accessibility of recreation activities for families	4.7		.77	Leisure
Affordability of recreation activities for families	4.3		.74	Leisure
City river-front trail system		5.9	.42	Leisure
Your self-esteem		5.7	x	
Hospital services		4.0	.75	Health Services
Access to medical clinics		4.6	.71	Health Services
Quality of health care		3.9	.75	Health Services
Friendliness of neighbours		5.2	.51	City Ambiance
Condition of local housing		4.5	.60	City Ambiance
Variety of retail stores		3.9	.61	City Ambiance
Customer services at retail stores		4.1	.60	City Ambiance
Federal government officials		3.6	.55	Gov. Services
Provincial government officials	3.7		.55	Gov. Services
Local government officials		4.1	.65	Gov. Services
Customer services from government agencies		4.1	.62	Gov. Services
Income assistance programs		3.4	.47	Gov. Services
Employment insurance		3.3	.46	Gov. Services
Accessibility to social support services (e.g., drug and alcohol, parenting, victim assistance)		4.1	.49	Gov. Services
Child protection services		3.5	.48	Gov. Services
Your overall quality of life		5.5	x	
Job opportunities		3.3	.46	City Ambiance
Relations between aboriginals and non-aboriginals in Quesnel		3.6	.50	City Ambiance

Promotion of multiculturalism in Quesnel	4.1	.56	City Ambiance
Traffic congestion	3.5	.49	City Ambiance
Noise levels here	4.1	.54	City Ambiance
Drug and alcohol abuse in the area	2.6	.44	City Ambiance
Your personal safety from crime	4.0	x	
The number of motor vehicle accidents	3.7	.50	City Ambiance
The weather most of the time	4.8	.47	City Ambiance
Quesnel's geographical location	4.9	.41	City Ambiance
Airport	4.6	.56	Gov. Services
Your overall happiness	5.6	x	

* Leisure Satisfaction Index (16 items, $\bar{x}=4.7$, $r=.93$), Education Satisfaction Index (4 items, $\bar{x}=4.3$, $r=.89$), Health Services Satisfaction Index (3 items, $\bar{x}=4.2$, $r=.86$), Government Services Satisfaction Index (27 items, $\bar{x}=4.2$, $r=.94$), City Ambiance Satisfaction Index (21 items, $\bar{x}=4.1$, $r=.90$).

x=item used independent of any index.

Exhibit 2. Percentages of respondents preferring a re-distribution of tax dollars for less, same or more spending in various areas.

		<u>Less</u>	<u>Same</u>	<u>More</u>
Library		5.3	62.9	31.8
City parks		5.1	75.5	19.5
City playgrounds		5.5	72.2	22.3
Social and recreational facilities for seniors	5.9	60.4	33.7	
Recreation activities for youth	5.5	44.4	50.2	
Recreation activities for adults	6.1	64.4	29.5	
Recreation activities for families	4.2	51.4	44.4	
Sports facilities	13.5	62.6	23.9	
Support for organized athletics	15.1	67.6	17.3	
City garbage collection	3.7	87.4	8.9	
City water supply		3.0	79.6	17.5
City sewage treatment	3.0	83.1	13.9	
Facilities for music, theatre and art	11.7	47.5	40.8	
Support public performances music/theatre	12.0	55.6	32.4	
Police Protection		1.9	46.5	51.7
Fire Protection	1.0	72.0	26.9	
City road maintenance and repair		0.7	28.8	70.5
City snow control/removal from roads	1.2	62.5	36.3	
Regional road maintenance and repair	1.2	27.1	71.7	
Regional snow control/removal from roads	1.2	47.7	51.1	
City street lighting		2.3	70.0	27.7
City storm drainage		2.8	84.4	12.8
Land use planning		7.8	68.2	24.1
City by-law enforcement		7.6	65.9	26.5
Condition of city sidewalks	2.3	69.9	27.9	
Snow removal from city sidewalks	2.1	76.7	21.2	
Landscaping of city boulevards and other city public lands		7.3	77.7	15.0
Promotion of the city	10.8	66.4	22.8	
City animal control		5.6	64.0	30.4
Local government administration		21.9	72.1	6.0
Recycling service		6.2	66.4	27.4
Museum services		6.7	81.7	11.5
City beautification		5.0	74.1	20.9
Availability of city public washrooms	3.8	34.7	61.5	
Airport	4.4	80.7	14.9	

Exhibit 3. Percentages of respondents saying that the idea of providing new services in various areas through government taxation does not or does merit

serious consideration, or that it is impossible for them to decide given their current information.

	<i>Does not merit consideration</i>	<i>Does merit consideration</i>	<i>Impossible to decide</i>
Public transit	21.7	73.5	4.9
Seniors' centre	40.0	44.3	15.7
Community health centre	14.0	78.2	7.8
Improved access for disabled people	11.0	74.8	14.2
Improved city cleaning	39.6	46.3	14.1
More child care services	35.3	49.2	15.5
Licensed day care services	36.7	45.9	17.3
Child drop-off centre	40.1	42.7	17.1
Expanded post-secondary education opportunities	11.5	80.6	7.9
Post-secondary education campus facility expansion	15.6	72.3	12.1
Performing arts theatre	36.0	48.2	15.8
A third ice surface	67.3	21.8	10.9
More mountain bike trails	40.0	46.8	12.8
A hospice house	13.7	77.5	8.8
Quesnel north/south interconnector	14.4	81.1	4.5
More outdoor sports fields	54.6	28.6	16.8
Extended river front walking trails and bike paths	28.6	64.7	6.7

Exhibit 4. Average number of good health days in the past 30 days for samples from USA, North and South British Columbia and Quesnel, by gender and age.*

<i>Age</i>	<i>USA</i> <i>Means (N)</i>		<i>BC, North</i> <i>Means (N)</i>		<i>BC, South</i> <i>Means (N)</i>		<i>Quesnel</i> <i>Means (N)</i>	
18-34 yrs	M	25.9 (17354)	M	20.4 (93)	M	23.4 (38)	M	23.4 (33)
	W	24.0 (22581)	W	20.6 (114)	W	22.4 (55)	W	20.7 (71)
35-49 yrs	M	25.7 (19994)	M	23.6 (188)	M	23.1 (83)	M	24.2 (93)
	W	23.9 (26751)	W	21.6 (160)	W	22.5 (66)	W	23.0 (119)
50-64 yrs	M	25.1 (12158)	M	24.5 (173)	M	22.8 (91)	M	25.4 (104)
	W	23.3 (16787)	W	21.6 (88)	W	24.8 (30)	W	23.7 (67)
65+ yrs	M	24.6 (9443)	M	24.6 (73)	M	21.8 (77)	M	19.9 (40)
	W	23.2 (17606)	W	22.0 (39)	W	20.8 (43)	W	20.7 (44)
Totals	M	25.5 (58949)	M	23.5 (527)	M	22.7 (289)	M	23.9 (270)
	W	23.7 (83725)	W	21.4 (401)	W	22.4 (194)	W	22.3 (301)

* American data covering the 50 states and Washington, D.C. of the USA were kindly provided by David Moriarty from the CDC Behavioral Risk Factor Surveillance System 1998; British Columbia data from Michalos and Zumbo (tbp).

Exhibit 5. Comparison of happiness regressions from 10 surveys

	1979 A ^a	1981 B	1982 C	1984 D	1985/86 E	1997 F	1997 G	1999n H	1999s I	2000 J
Percent of variance explained in happiness	45	32	36	39	28	38	27	45	47	35
Predictors										
Satisfaction with:	Standardized Regression Coefficients									
Health	.12	.12	.18	.17	.09	b	b	.10	b	b
Financial security	.09	.06	.21	b	.13	.14	.19	.09	b	.19
Family relations .38	-.03	.09	.14	.06	.14	b	b	b	.14	
Job	.03	c	.09	.18	b	b	b	.14	.20	b
Friendships	.23	.23	.01	.21	.10	.09	b	b	.21	b
Housing	.01	-.01	.10	b	.07	b	b	b	b	b
Area lived in	b	.01	.05	b	c	b	b	c	c	b
Recreation activity	.03	.04	.05	b	.07	b	b	b	b	.14
Religion	c	.01	.03	b	b	b	b	b	b	.15
Self-esteem	.07	.09	.14	.26	.13	.27	.25	.38	.29	.23
Transportation .05	.05	b	b	b	b	c	c	c	c	
Gov. services	c	.08	.03	c	c	.09	b	c	c	b
Living partner	c	.30	c	c	.18	.22	.22	.13	.17	b
Education	-.03	c	c	b	.10	c	c	c	c	b
Fed.Gov.Off.	c	c	c	c	c	c	c	.10	b	b
Personal safety c	c	c	c	c	c	c	.08	.16	b	

P<.01, a: A=Clerical staff (N=312), B=Rural seniors (N=273), C=Cochrane residents (N=328), D=Guelph students (N=296), E=world students (N=5036) , F=Prince George residents (N=466), G=Jasper residents (N=210), H=B.C. northerners (N=713), I=B.C. southerners (N=348), J=Quesnel (N=370). b: Significance level too low to enter equation. c: Not in questionnaire. Sources of the surveys are identified in the References using the letters heading each column; e.g., A=Michalos (1980).

Exhibit 6. Explanations of Happiness, Satisfaction with One's Standard of Living and Satisfaction with the Overall Quality of Life

Happiness

<i>Predictors=</i>	<i>Beta</i>
Good health days	.25
Self-esteem satisfaction	.23
Spiritual satisfaction	.14
Family relations sat.	.13
Financial security sat.	.13
City Ambiance Index	.10
<i>Variance Explained</i>	40% (N=370)

Satisfaction with Standard of Living

<i>Predictors=</i>	<i>Beta</i>
Financial security sat.	.48
Health satisfaction	.17
Spiritual satisfaction	.15
Housing satisfaction	.12
Neighbourhood sat.	.11
Household income	.08
<i>Variance Explained</i>	65% (N=370)

Satisfaction with Overall Quality of Life

<i>Predictors=</i>	<i>Beta</i>
Financial security sat.	.23
City Ambiance Index	.23
Self-esteem satisfaction	.19
Family relations sat.	.16
Health satisfaction	.13
Good health days	.10
<i>Variance Explained</i>	50% (N=370)