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Well-being in First Nations Communities: A Comparison of Objective and Subjective Dimensions

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Introduction

There has been a growing recognition that public policy should promote well-being as opposed to merely addressing social problems. However, well-being is an elusive concept. What constitutes well-being and the mechanisms underlying it has generated substantial theoretical and empirical work, but little consensus. To date, definitions have been broad and abstract. In 2004, at the Royal Society Discussion Meeting, well-being was defined as "a positive and sustainable state that allows individuals, groups, or nations to thrive and flourish" (Huppert, Baylis, & Keverne, 2004, p. 1331). Despite these fuzzy definitions, this line of research has begun to shed light on how well-being is produced. Public policy itself is an important determinant of a society's well-being (Huppert & Baylis, 2004). In particular, there is evidence to suggest that public policy influences individuals through multiple channels (Helliwell, 2003). As a result, a policy may have a positive effect on well-being via one channel and a negative one via another, which can help to explain why expected outcomes are not always evident. Understanding these possible multiple outcomes can lead to the development of better policies.

One approach to the study of well-being has been the development of composite indicators (Cooke, 2005). Since well-being is not directly measurable, researchers have combined key determinants of well-being that are shared across social groups (Dasgupta, 1999). This method enables researchers and policy makers to make comparisons across groups and locations, and over time. In addition, these indicators provide a way of evaluating policies and their alternatives (Dasgupta, 1999).

In this chapter we use one such measure: the Community Well-being Index (CWB). This index provides a simple and understandable objective measure of basic socioeconomic dimensions of well-being, including education, labour force participation, income, and housing.[1] These dimensions have been recognized as key non-medical determinants of health and well-being (First Nations Inuit Health Branch, 2005). Furthermore, many in Aboriginal communities have stressed the importance of these issues. For example, many Aboriginal people, as well as other

researchers, argue that education is needed to fully participate in Canadian society and achieve self-governance (Abele, 2004; Silver & Mallet, 2002, see also White et al., 2003 and 2007). As Abele (2004) noted, Aboriginal peoples have been affected by many of the macro-level changes in society that have restructured labour markets, increased income inequality, and changed educational needs. As a result, there is a shared interest in creating a society that supports the well-being of its citizens; however, Aboriginal peoples may approach the issue from a different cultural and historical perspective.

The CWB has been used to compare conditions across First Nations, and between First Nations and non-First Nations communities (see Chapter 8). As critics have noted, it does not include measures of the cultural dimension (Ten Fingers, 2005). There are several issues that make the inclusion of culture in indices difficult. First, there is no pan-Aboriginal culture. There is tremendous cultural diversity across First Nations and other Aboriginal groups. In order to add a cultural dimension, we need to find a measure that is equally valid across different cultural groups. A second, and related challenge, is finding a way of quantifying culture that is still meaningful. Obviously, culture is best understood qualitatively, but indices require quantitative data. Language may be a good candidate since it is a primary vehicle for cultural transmission (First Nations Inuit Health Branch, 2005). Norris (1998) and Norris and MacCon (2003), for example, classified Aboriginal languages as extinct, near extinction, endangered, viable with a small population base, and viable with a large population base. This approach provides a way of quantifying a proxy measure of cultural vitality. An additional challenge, if we are interested in seeing how First Nations compare to other groups, is finding an equivalent measure of culture for those other groups. Finally, there is limited data available that would enable such intra- or inter-group comparisons (Cooke, 2005). As data become available, it will be possible to see if culture adds sufficient explanatory power to justify its inclusion in the CWB.

Qualitative research conducted by or in partnership with First Nations is drawing attention to local understandings of well-being and the processes that link culture and well-being (see for example Ten Fingers, 2005). It will be exciting to see, as both lines of research develop, whether they compliment or contradict one another. The reconciliation of these two different perspectives on well-being will likely bring about important advancements in terms of theory, method, and knowledge.

In the study of well-being, there has been growing recognition that measures of objective conditions only provide part of the picture (Biswas-Diener, Diener, & Tamir, 2004; Kahn & Juster, 2002). Individuals interpret their own objective conditions and create their own subjective understandings and evaluations. Subjective well-being refers to an individual's own personal assessment (McBride, 2001). Research has identified three distinct dimensions of subjective well-being: positive affect, negative affect, and life satisfaction (Biswas-Diener et al., 2004). Since the

former two are reactive to short-term changes in external circumstances, most of the research in the field has focused on life satisfaction (Helliwell, 2003).

Existing research has demonstrated that the relationship between objective conditions and subjective evaluations of well-being is complex. In this chapter, we examine the relationship between objective measures of community well-being and the subjective assessments of residents who live in those First Nations. We are interested in determining whether there are patterns in residents' responses depending on whether they live in a below average, average, or above average CWB community. We will address three research questions: 1) What do residents of First Nations communities identify as the top priorities for their communities and do they vary across CWB levels? 2) Is there an association between residents' subjective assessments of their community and its CWB score? 3) Is there a relationship between community well-being, as measured by the CWB, and subjective dimensions of individual well-being? Correspondence with subjective data provides support for the CWB as a proxy measure of community well-being. Where there are discrepancies, we are challenged to find explanations that will advance our understanding about the interplay between external conditions and the assessments of individuals.

Review of Well-being Literature

It is generally agreed that well-being has the following five characteristics. First, it is more than the absence of negative outcomes (Diener, Suh, Lucas, & Smith, 1999; Huppert et al., 2004). Well-being implies a high level or large number of positive outcomes relative to negative ones. Second, it is multifaceted and includes psychological, physical, social, and economic states (Diener et al., 1999; Huppert et al., 2004). Third, processes that produce well-being take place at the individual, community, national, and international levels (Helliwell, 2003). Fourth, well-being has objective and subjective dimensions, which may not be concordant (Diener et al., 1999). Subjective dimensions of well-being are relative and influenced by culture (Diener et al., 1999; Oishi, Diener, Lucas, & Suh, 1999). In other words, to whom we compare ourselves influences how well we think we are and what is most salient to our assessments depends on what our culture tells us is important. Finally, well-being is produced through interaction between individual agency, and structural and cultural constraints (Thoits, 2006). Individuals exercise personal agency in order to seek out opportunities to improve their well-being, avoid or mitigate situations that are deleterious, and cope with or compensate for negative circumstances beyond their control. However, individuals do not have carte blanche. Structured social relations make certain choices and actions difficult or impossible by differentially distributing stressors, resources, demands, obligations, expectations, etc.

Well-being is related to, but not synonymous with, economic prosperity (Diener et al., 1999). Most studies find only a modest correlation between personal income, and various measures of subjective well-being (e.g., happiness, life satisfaction)

(Diener & Biswas-Diener, 2002; Diener et al., 1999). When relative income norms increase, subjective well-being tends to decrease (McBride, 2001). On the one hand, having a low personal income substantially increases the risk of negative outcomes such as unhappiness, distress, and disorder (Diener & Biswas-Diener, 2002). In addition, concentrated disadvantage in neighbourhoods is associated with a wide range of negative outcomes including higher mortality rates, poorer health, crime, accidental injury, and suicide (Sampson, Morenoff, & Gannon-Rowley, 2002). On the other hand, there are strong positive correlations between national wealth and mean subjective well-being probably due to the indirect benefits of living in a wealthy nation (e.g., better infrastructure, clean drinking water, government funded education, etc.) (Diener & Biswas-Diener, 2002; Diener et al., 1999). Helliwell (2003) called these spill-over effects. Research has also shown that meeting basic needs predicts subjective well-being across cultures; however, higher order goals vary by culture (Oishi et al., 1999). The relatively high rates of poverty in the Aboriginal population suggest that basic needs are not being met in many communities (Abele, 2004). Research has also found evidence of diminishing returns at both the individual and national levels; that is, increases in wealth have a larger effect on subjective well-being among low-income individuals and citizens of poor nations, but level off as wealth increases (Diener & Biswas-Diener, 2002).

There are small, but significant correlations between an individual's education level and subjective well-being (Diener et al., 1999; Witter, Okun, Stock, & Haring, 1984). Consistent with findings on income, the effects of education are stronger among individuals with low incomes and those living in poorer nations (Diener et al., 1999). Helliwell (2003) found a strong positive effect between the average level of education in a nation and life satisfaction. He concluded that, for the most part, education affects well-being indirectly through increases in "participation, health, perceived trust, and higher incomes" (p. 351). Indeed, part of the effect is due to overlap with income and occupation; however, education may have benefits beyond higher income and a better job. A study by Steverink, Westerhof, and Bode (2001) showed that physical decline, continuous growth, and social loss were particularly relevant to the subjective well-being of adults past middle age. Individuals with higher income and education, along with better self-rated health and lower levels of loneliness, reported less physical decline and social loss and higher levels of continuous growth. In their analysis of distress in the off-reserve Aboriginal population, Wingert and White (2006) found that individuals with higher levels of education had a stronger sense of mastery, which contributed to lower levels of distress. Individuals with high levels of mastery may be better able to create conditions that are beneficial for well-being. However, education may have a negative effect on subjective well-being when it leads to goals that cannot be achieved (Diener et al., 1999). For example, if an individual cannot translate higher education into tangible benefits, such as a high paying job that uses his or

her skills, higher levels of distress may occur. This may be the case on reserves with limited economic opportunities.

Work has received less attention in the subjective well-being literature. Kahn and Juster (2002) stated:

> Work is a source of income, which in turn determines housing, neighbourhood, and the many other aspects of life that are in some degree monetized. A person's employment demands a significant part of his or her time and energy. For most people it is also a source of friendships, and for many it provides a means of utilizing valued skills and abilities. For all these reasons, work (employment) ranks high among the determinants of overall life satisfaction. (pp. 634-635)

Research has shown a connection between unemployment and negative mental health outcomes (Avison, 2001). In addition to health, employment opportunities and income have been associated with neighbourhood stability, pessimism, viability, and social functioning (Christakopoulou, Dawson, & Gari, 2001).

Existing research suggests that many of the dimensions of community well-being that the CWB captures are associated with a wide range of outcomes that directly or indirectly affect the subjective well-being of individuals. In the next section, we compare what residents at different CWB levels say about their communities and their own well-being.

Method

The analyses are based on two waves of a panel telephone survey by EKOS Research Associates, Inc. between February and June 2005. The sampling frame was derived by identifying postal codes from the ten provinces associated with Census subdivisions that contain a reserve or Band office. This exhaustive list of postal codes was used to find telephone numbers from all telephone books from those areas. Telephone numbers were selected at random.

Survey respondents met three eligibility criteria: 1) they were a member of an Indian band or First Nation; 2) aged 16 or older; and 3) resided on a reserve in Canada for at least part of the year preceding the survey. Survey respondents were asked to name their First Nation community, which was matched to its corresponding CWB score.[2] CWB scores were missing for respondents who did not provide the name of their community. These cases were excluded, leaving a final sample of 2,065 individuals. There were 785 individuals who completed wave 1 only, 745 in wave 2 only, 513 in both waves, and 22 missing cases. Weights for each wave were calculated based on age, gender, and region for the First Nations population living on-reserve, according to Statistics Canada figures.

Sample Description by CWB

The CWB scores, which range between 0.42 and 0.90, were divided into three groups. The "average" group had scores that were within one standard deviation

Figure 10.1: Percentage of Respondents in CWB Categories

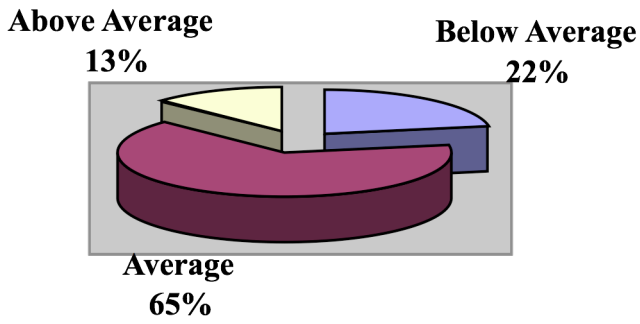


Figure 10.2: Age Structure by CWB

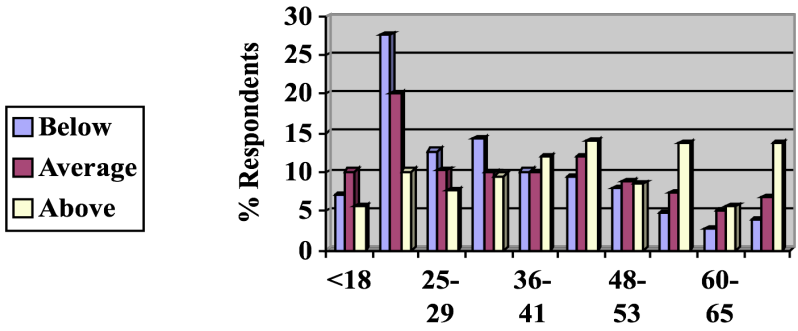
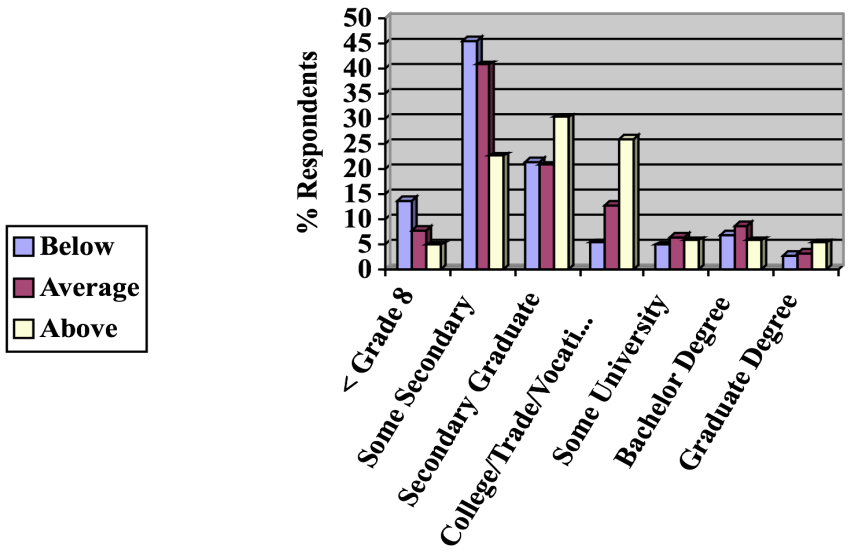


Figure 10.3: Highest Level of Education by CWB



above or below the mean. Scores that were more than one standard deviation below the mean were labelled "below average," and more than one standard deviation above was "above average." **Figure 10.1** shows the percentage of respondents in each CWB category. As one would expect, close to two-thirds were in the average range.

Looking at the age structure of the sample, according to the Kruskal-Wallis test, there are significant differences in median age between CWB categories in both wave 1[3] and wave 2.[4] **Figure 10.2** shows the percentage of respondents in each CWB by age category averaged across both waves of data. A series of Mann-Whitney tests with Bonferroni adjustments were used to compare each pair of CWB categories for significant differences. Compared to below-average communities, average[5] and above average[6] communities had significantly higher mean ranks, which indicates an older population. Above-average communities had a significantly higher mean rank relative to average communities.[7] We would expect that below-average communities have higher birth and death rates, which contribute to a population that is younger on average.

In wave 1 and wave 2, respondents were asked to indicate their highest level of education. Given that two components of the CWB are based on educational attainment, functional literacy (proportion of the community population over the age of 15 with at least a grade 9 education), and high school plus (proportion of the community population that has at least a high school diploma) (McHardy & O'Sullivan, 2004), we would expect to find significant differences in respondents' educational attainment across CWB groupings if this sample is representative of the population at each community level. **Figure 10.3** shows the percentage of respondents by CWB level in each educational category. In general, we can see that respondents in below-average communities are overrepresented in the less than secondary categories while above-average communities have a higher percentage of residents in the secondary graduate, college, trade, vocational, and graduate degree categories. Interestingly, more residents in average communities had some university or a bachelor's degree compared to the other two categories. Results confirmed that there are differences in median educational level.[8] These differences were significant between respondents in below-average and average communities with average communities having a higher mean rank.[9] Compared to average communities, above-average communities had a higher mean rank.[10] Finally, the difference between below- and above-average communities was also statistically significant.[11] Therefore, we can conclude that there is no response bias based on education in this sample because the pattern mirrors the CWB, which is based on population data from the Census.

The CWB also uses a measure of income per capita in the community. Here we examine whether there are differences in household income (waves 1 & 2) across the three CWB groups. **Figure 10.4** (page 216) shows the income distribution of the sample by CWB averaged across both waves of data. The distribution is as expected, with below-average communities having a higher proportion of individ-

Figure 10.4: Household Income by CWB

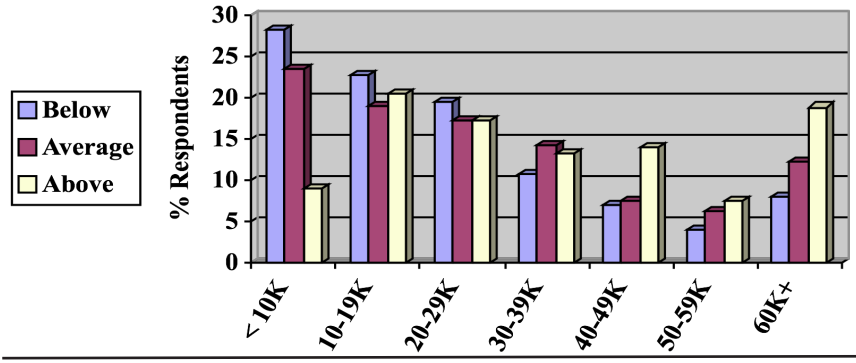
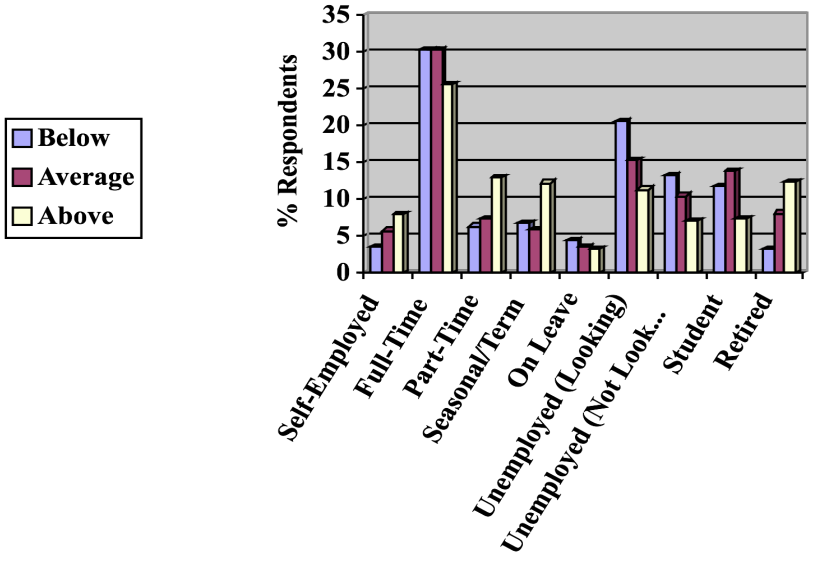


Figure 10.5: Employment Status by CWB



uals with lower incomes and above-average communities being overrepresented at the upper end of the scale. Furthermore, we verified that there were statistically significant differences in the expected direction across the three groups.[12] Average communities have a higher median income compared to below-average communities.[13] Above-average communities had higher household incomes compared to average communities.[14] Finally, residents in below-average communities had significantly lower household incomes than those in above-average communities.[15] Again, it is important to note that given that the CWB includes income measures, if our sample is representative, this is an expected outcome.

The CWB measure of labour force activity captures the percentage of the adult population that is in the labour force and the percentage that are employed. In both waves of the EKOS survey, respondents were asked whether they were self-

employed, employed full-time, part-time, seasonally, in a term position, on leave (sick, disability, maternity, or parental), unemployed looking for work, unemployed not looking for work, a student, or retired. **Figure 10.5** shows the percentage of respondents in each CWB category (averaged across the two waves) in each employment category. According to the chi-square test, there was a statistically significant association between CWB level and employment status for both waves.[16] Adjusted residuals tell us where there are statistically significant differences between the observed and expected frequencies. We find that a higher proportion of respondents in below-average communities were unemployed looking for work[17] and unemployed not looking for work.[18] On the other hand, fewer people in these same communities were retired,[19] self-employed,[20] or working part-time.[21] Average communities had fewer seasonal or term[22] employees and a higher number of students.[23] There were fewer full-time workers,[24] unemployed but looking,[25] and students[26] in above-average communities; yet, there were more part-time,[27] seasonal and term,[28] and retired[29] persons than expected. This more detailed measure confirms that more residents in below-average communities are affected by unemployment than in average and above-average communities; however, in terms of employment, there are some unexpected findings. For example, we might have expected average communities to have a higher proportion of residents who are working, but in less stable forms of employment such as seasonal, term, or part-time, which might explain why they have lower average incomes compared to those in above-average communities. However, above-average communities are characterized by these types of employment. The older average age in above-average communities may help to explain why a lower percentage of residents were students and a higher proportion was retired. It may also be that economic opportunities in and around above-average communities allow residents to work part-time or seasonally while pursuing higher education.

In wave 1, respondents who indicated that they were employed were asked whether they were employed on-reserve, off-reserve, or both, as well as their occupational category (labourer; semi-skilled; skilled trade; sales, service, or clerical; professional or management; or administrative). When we look at where respondents were employed, the vast majority across CWB levels were employed on-reserve (**Figure 10.6** — page 218). However, analyses showed a significant association between CWB and employment location.[30] A higher proportion of residents in below-average communities were employed on-reserve while fewer were employed off-reserve. The opposite relationship was found for above-average communities. There was no association between CWB and occupational category. It appears that part of the advantage of above-average communities may be proximity to other centres, which become a source of economic opportunities.

In waves 1 and 2, respondents were asked what language they first learned as a child and still understand (meaning that if a child learned an Aboriginal language but subsequently lost it, it wouldn't count). In order to ensure adequate cell sizes, responses were recoded into English or French, and Aboriginal

Figure 10.6: Employment Location by CWB

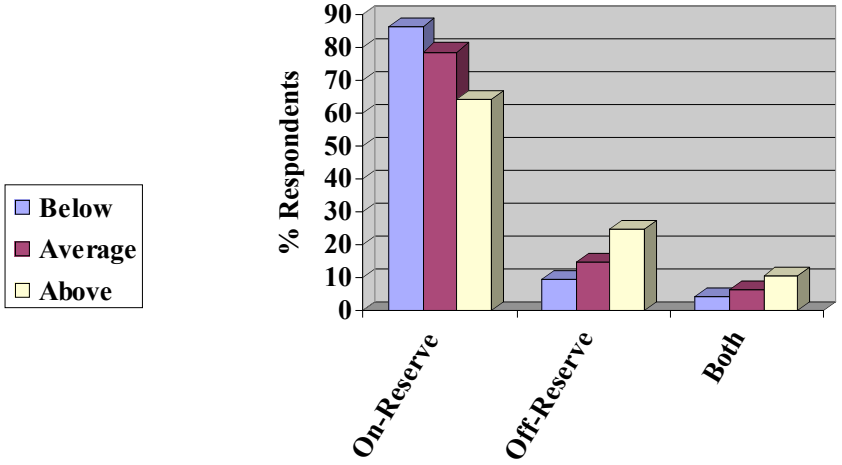
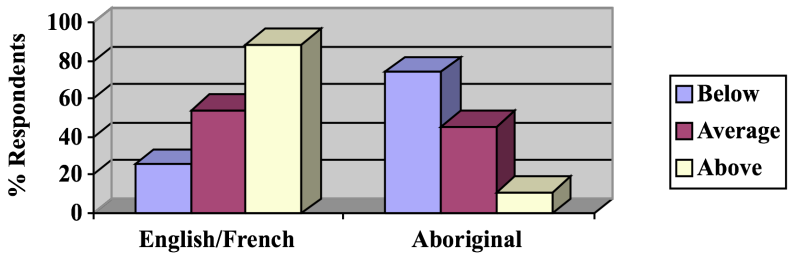


Figure 10.7: Language First Learned by CWB



languages. Results are presented in **Figure 10.7**. We can clearly see there is an association between first language and CWB.[31] Respondents in below average CWB communities were much more likely to have learned an Aboriginal language[32] as their first language while those in average[33] and above-average[34] communities were more likely to have learned English or French. In wave 1, respondents were asked to rate on a five-point scale how important it was to keep, learn, or relearn their Aboriginal language. There were no differences by CWB level, with the vast majority in all three groups reporting it was very important. Respondents in wave 2 were asked whether they had participated in any traditional or cultural activities over the past 12 months. There was a significant association with CWB[35] with respondents in below-average communities being less likely to have participated.[36]

Based on the data available here, it appears there is a complex relationship between culture and CWB. With respect to first language, we may be seeing a spurious relationship because Cree, one of the most prevalent Aboriginal languages, is concentrated across the prairie provinces, which also have a disproportionate number of below average CWB communities (McHardy & O'Sullivan, 2004).

However, there may indeed be a relationship between first language and economic integration, which means those without proficiency in English or French may be more likely to experience economic disadvantage. It is also unusual that the vast majority of residents in below-average communities cite an Aboriginal language as their mother tongue, but were less likely to have participated in traditional activities. This finding runs counter to the language as a vehicle for culture argument. Boldt (1993) asserted much of the cultural revitalization among Aboriginal peoples has been in an expressive-ritualistic form as opposed to reasserting traditional values and norms that are encoded in language. If language is indeed a vehicle for culture, traditional livelihoods may be an integral part of life in below-average communities. However, respondents may not think of traditional ways of living as traditional activities, which may be conceptualized as specific events. However, it is also possible that there is a disconnect between language and cultural activities. It may be that communities with more resources are able to provide organized, large scale, and more formalized traditional activities for their residents. It may also be the case that while the majority of residents in average and above-average communities learn English or French first, some may subsequently acquire their traditional language and enjoy the best of both worlds.

Results

In wave 1, respondents were asked what areas of their First Nations community most urgently needed attention to improve the lives of residents. They were not read a list of choices and could give up to three answers. **Figure 10.8** (page 220) shows the percentage of respondents who said each category was a priority for their community, by CWB level. The results provide support for the contention that the CWB taps into key dimensions of well-being. More or better housing, education, and jobs were among the top three priorities. Fewer respondents living in below-average communities said that healthcare was a priority.[37] On the other hand, significantly more residents in these communities listed infrastructure.[38] Residents in average communities were more likely to say housing needed urgent improvement.[39]

Survey respondents were also asked what the Government of Canada's priority for First Nations should be (**Figure 10.9** — page 220). Respondents were not read a list of choices and were asked to give one answer. Living conditions in the community, education, and health and social services were the top three responses. When we compare responses across CWB levels, we also find a significant relationship.[40] A higher proportion of residents in below-average communities said that living conditions should be a government priority.[41] On the other hand, residents of above-average communities were much less likely to cite living conditions.[42] Governance, rights, and funding were seen as the priority by many more residents in above-average communities.[43]

Figure 10.8: Areas Needing Urgent Improvement by CWB

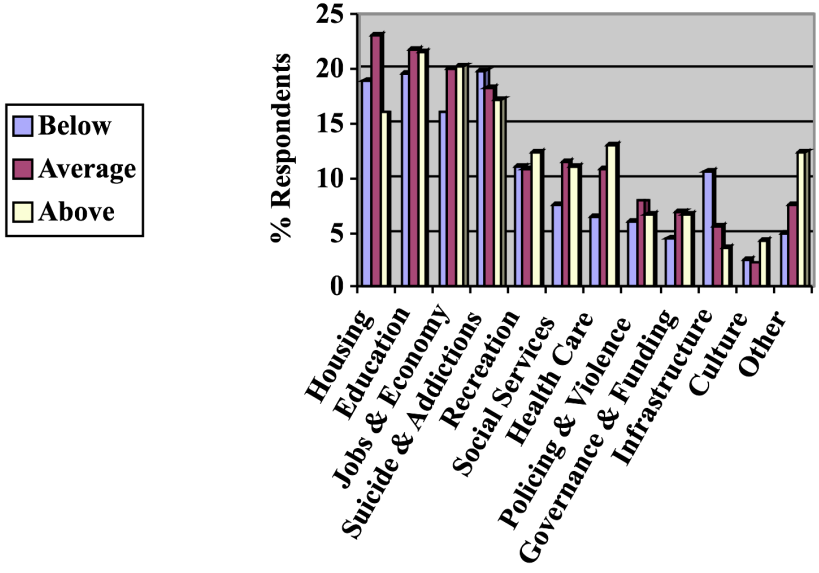
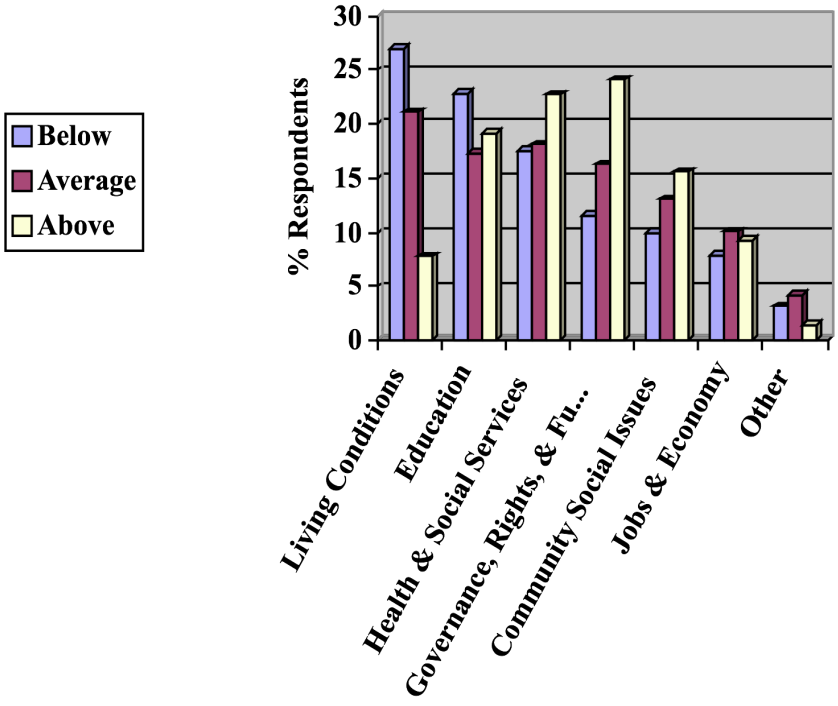


Figure 10.9: Government of Canada's Priorities for First Nations by CWB



When we compare these responses with those about community priorities, we see that jobs and the economy is a community priority, but not one on which the federal government should focus. On the other hand, issues of governance, rights, and funding are a lower priority for First Nations communities, but are areas where Federal Government involvement was seen as important. On the one hand, residents in below-average communities tended to see living conditions and infrastructure, including water, as priorities. On the other hand, residents in above-average communities were more likely to focus on issues at the centre of the Aboriginal rights movement, including land claims, self-government, funding for reserves, and government accountability.

Next, we wanted to know whether there were differences in respondents' subjective assessments of their communities across CWB levels. In other words, do residents' own opinions mirror the objective information from the CWB score? Respondents were asked to rate on a five-point scale (1 = very bad and 5 = excellent) education (kindergarten through grade 12), health care (amount and quality), safety, housing (amount and quality), drinking water, social support from friends and family, jobs and the economy in their community. The availability of social support and health care showed no significant differences. It may be that since these variables are less connected to socio-economic conditions that they are distributed randomly across CWB levels. However, there were significant differences with respect to education,[44] safety,[45] quality of housing,[46] drinking water,[47] jobs,[48] and economy.[49] **Figure 10.10** (page 222) shows the mean ranks for the statistically significant variables with higher scores, indicating higher ratings on average compared to the other groups.

Below-average and average communities differed significantly on the quality of housing available[50] with respondents in average communities giving higher ratings. Respondents from above-average communities rated safety,[51] quality of housing,[52] quality of drinking water,[53] amount and quality of jobs,[54] and the community economy[55] higher than those living in average communities. When below- and above-average communities were compared, there were significant differences across all six variables.[56] With the exception of education, residents in above-average communities gave more favourable ratings. It is interesting that residents in below-average communities reported that the quality of education was better compared to those in above-average communities. It may be that residents in above-average communities have higher expectations with regard to education and as a result, provide less favourable ratings. Other studies have found a similar pattern. White, Spence, and Maxim (2005) reported that among Aboriginals in Australia, children, families, and communities took more interest in schooling in regions where education could lead to employment. It is also possible that initiatives to improve educational quality have been targeted toward the communities with the greatest need.

On a five-point scale (1 = strongly disagree and 5 = strongly agree), respondents were asked to indicate how well their community was run, whether they

Figure 10.10: Ratings of Community Areas by CWB

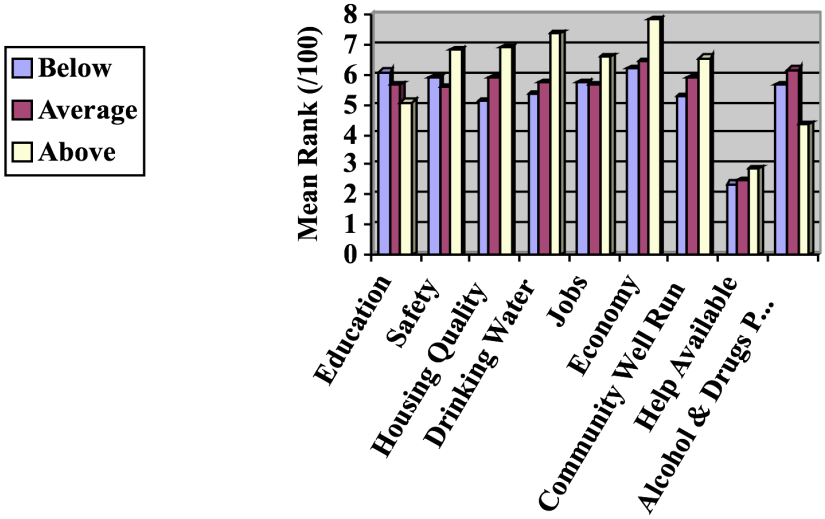


Figure 10.11: Ratings of Subjective Well-being by CWB

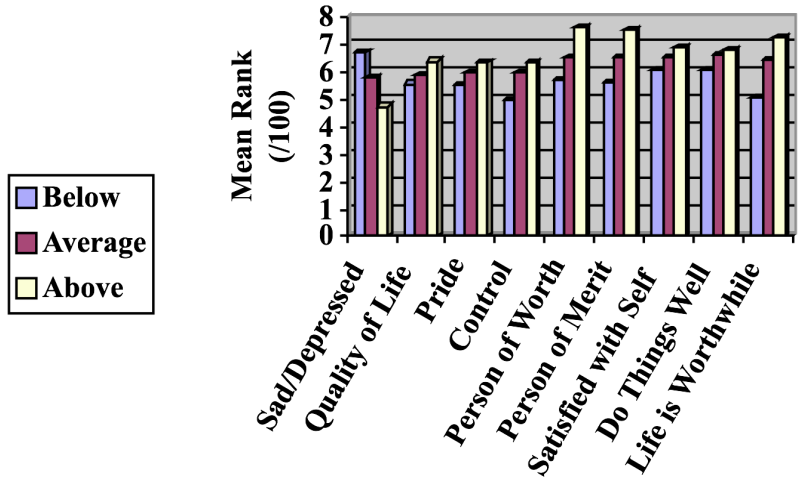
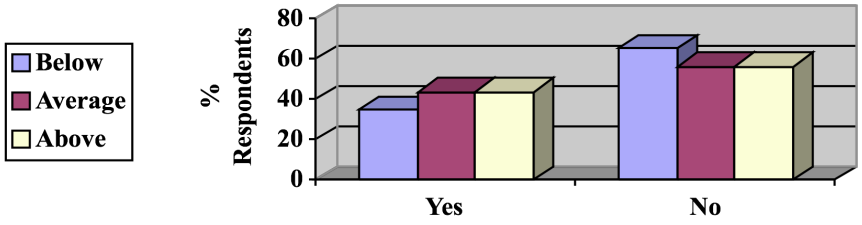


Figure 10.12: Experienced Discrimination/Racism by CWB



had any say in how their community was run, and the extent to which they got the help they needed in their community (**Figure 10.10**). There were significant differences between CWB levels in ratings for getting help in the community[57] and how well the community was run[58] (**Figure 10.10**). Differences were significant between below-average and average,[59] average and above-average,[60] and below- and above-average[61] for ratings of how well the community was run. It appears, not surprisingly, that residents in above-average communities gave higher marks compared to the other two groups. There was a statistically significant difference between respondents' ratings in below-average and above-average communities with respect to getting help.[62] Other research has found a positive relationship between socio-economic status and social support (Wingert & White, 2006).

Respondents were also asked to rate how big a problem domestic violence, and drugs and alcohol were in their community (1 = no problem at all and 5 = a very big problem). There were no significant differences with respect to domestic violence, but there was a relationship between CWB and drugs and alcohol[63] (**Figure 10.10**). Residents in average communities had the highest mean rank, which means drugs and alcohol were seen as a bigger problem in these communities. Pairwise comparisons indicated that ratings for drug and alcohol were significantly different between average and above-average,[64] and below- and above-average communities.[65] In both cases, above-average communities had a lower mean rank indicating drugs and alcohol were seen as less of a problem. These analyses do not allow us to look at the causal direction of this relationship. It may be that increases in well-being lead to reductions in substance abuse or the prevalence of these problems may erode community well-being over time. In addition, both processes may be at work. It is clear that even though the CWB does not directly measure many elements of community life, we generally find more positive assessments as we move up the CWB ladder.

Our third research question asks whether there is a relationship between CWB level and residents' assessments of their own personal well-being. In wave 1, respondents were asked to rate their quality of life (1 = very bad and 5 = very good). In addition, they were asked how strongly they disagreed or agreed with the statements: I often feel sad and depressed; I can meet most of the challenges that come my way; I have a lot to be proud of; and I have control over what happens to me. We found that there were statistically significant differences across CWB groups for quality of life,[66] sadness and depression,[67] pride,[68] and control[69] (**Figure 10.11**). Only "confidence in one's ability to meet challenges" showed no difference. Between below-average and average communities, there were differences in feelings of sadness and depression,[70] pride,[71] and control.[72] People in below-average communities more strongly agreed that they often felt sad and depressed and that they felt much less pride and control. Between average and above-average communities, only feeling sad and depressed was statistically significant[73] with people in average communities experiencing more sadness and

depression. When we compare below and above-average communities, all of the variables are statistically significant.[74] Respondents in below-average communities more strongly agreed they often felt sad and depressed, while those in above-average communities felt more pride, control, and that they had a good quality of life.

In wave 2, respondents were asked how strongly they agreed or disagreed that they were a person of worth, person of merit, satisfied with themselves, do things as well as most, and that life was worthwhile. Significant differences emerged between CWB categories on all of these variables[75] (**Figure 10.11 —** page 222). The differences in mean rank were significant between respondents in below-average and average communities for person of worth,[76] person of merit,[77] doing things well,[78] and life is worthwhile.[79] Respondents in average communities had relatively higher scores across the board. The respondents from above-average CWB communities felt more self-worth,[80] merit,[81] and that life was worthwhile[82] compared to respondents from average communities. Finally, compared to respondents in below-average communities, those in above-average communities had much more positive assessments of themselves and their lives.[83]

Research has shown that experiencing discrimination or racism can be deleterious to well-being (Whitbeck, McMorris, Hoyt, Stubben, & LaFramboise, 2002). In wave 2, respondents were asked whether they had experienced discrimination or racism in the past two years because of their Aboriginal heritage. **Figure 10.12** (page 222) shows responses to this question as a percentage within each CWB level. Over half of respondents in each category indicated that they had not experienced discrimination or racism. However, there was an association between CWB level and having a negative experience related to ethnicity.[84] Those in below-average communities had a lower frequency of experiencing discrimination or racism.[85] On the other hand, those in average communities had a significantly higher rate.[86] The association was not statistically significant for above-average communities. McHardy and O'Sullivan (2004) examined average CWB scores by geographic zone classification (urban, rural, remote, and special access). Special access communities had the lowest average CWB score (.60), followed by rural (.65), remote (.68), and urban (.71). It may be that residents in low CWB communities experience less racism and discrimination because they have less contact with non-Aboriginal communities. On the other hand, if respondents in below-average communities have a stronger connection to culture, there may be a buffering effect that may mitigate the negative effects of discrimination, which makes the experience less memorable.

Finally, we looked at a measure of health. Respondents in wave 2 were asked if they had a physical or mental condition that impaired their daily functioning. The results were not statistically significant. It may be that this measure of health is too narrowly defined to detect differences. Less than one-third of respondents indicated that they had a functional impairment. Self-rated health may be a more sensitive measure.

Conclusions

This chapter has aimed to expand our knowledge of well-being in First Nations communities by looking at how subjective assessments relate to objective conditions. A central issue is whether the CWB taps into dimensions of well-being that community residents deem important or if it imposes a view that is markedly discrepant from local perspectives. The first research question asked whether community priorities vary by CWB level. Here, it was evident that the CWB captures key issues for community residents across all three levels, since housing, education, jobs, and the economy were the most commonly cited. Health and social services are lower priorities for below-average community residents. What warrants further investigation is whether residents are happy with the level of service or there are more pressing issues in the community. It appears that one of those pressing issues is basic living conditions and infrastructure, which were more likely to be a top priority for residents in below-average communities. Given that other research has found the most dramatic gains in subjective well-being when improvements are made in the poorest areas and among the poorest people, it seems that addressing basic needs and community capacity in the communities with the lowest CWB scores would be the most efficacious use of resources. Responses about community versus government priorities seem to suggest that respondents saw community building as the responsibility of local governments while the federal government's role was to assist communities less able to achieve or maintain adequate living conditions, as well as providing high quality education, social services, and ensuring Aboriginal rights are protected.

Next, we looked at whether subjective assessments mirrored the information provided by the CWB. In general we find the expected pattern, with above-average community respondents providing more favourable assessments (with the exception of education). Further investigation is needed to uncover whether the quality of education is relatively poor in high CWB communities or whether there are higher expectations. Another issue is whether average communities have the highest drug and alcohol abuse rates or whether residents in these communities are simply more aware of or bothered by the current level. It may be that widespread recognition of the problem is necessary to motivate the community to address the problem. In addition, compared to below-average communities, average ones may have the resources needed to provide treatment and support. It is also not clear whether rates of domestic violence are randomly distributed across CWB levels or whether there is less recognition of the problem where it is prevalent. It may be that drug and alcohol use more often takes place in a group setting or public place, making it more visible, while domestic violence is more likely to occur in private, rendering it less visible. The spill over effects of drugs and alcohol may also be more disruptive to other community members compared to domestic violence.

Finally, we looked at how CWB levels related to assessments of personal well-being. The pattern was quite clear with respondents in higher CWB categories

reporting more positive perceptions of themselves and their lives. These findings are in line with the large body of research connecting socio-economic conditions and psychological well-being (for review, see Yu & Williams, 1999). Here, we see that the CWB corresponds with a range of individual outcomes that it does not directly measure. This finding supports the contention that the CWB measures key determinants of community well-being that are in turn associated with dimensions of personal well-being.

Perhaps the most intriguing questions are raised around the relationship between CWB and culture. Aboriginal peoples have emphasized that their culture is central to their individual and collective well-being. There is widespread acceptance for the contention that the history of cultural oppression and marginalization is a major contributing factor to present levels of inequality. Relatively few studies have examined the role of culture in the production of well-being, but studies examining mental health outcomes have found positive effects. For example, Whitbeck et al. (2002) found that among American Indians living on reservations, engaging in traditional practices was protective against the deleterious effects of discrimination. Studies have reported lower levels of psychological distress among individuals who spend more time in the bush (Kirmayer, Boothroyd, Tanner, Adelson, & Robinson, 2000). Culture ranked very low on the list of community priorities. Again, there is no way of knowing why fewer respondents cited it as a priority. There are a number of possibilities. It may be that respondents are satisfied with the availability of cultural activities in their communities or it may be that other initiatives are believed to have a wider or more profound impact on the lives of residents. It may also be that since cultural activities generally do not require the cooperation of government, communities have more direct control over provision. The context in which cultural activities occur may also matter. The positive effects of culture may be off-set by the negative effects of socio-economic deprivation. For example, the relatively high rates of Aboriginal languages as a mother tongue in below-average communities do not seem to translate into positive self-perceptions and affect, or life satisfaction. As Kirmayer, Brass, and Tait (2000) argued, "attempts to recover power and maintain cultural traditions must contend with the political, economic, and cultural realities of consumer capitalism, technocratic control, and globalization" (p. 616).

We predicted that there would be a complex relationship between objective measures of community well-being and subjective assessments. Certainly, research examining the processes and mechanisms connecting the two will undoubtedly uncover tremendous complexity. However, these analyses show definite patterning. Generally, residents in communities with better socio-economic conditions were focused on community building, as opposed to meeting basic needs, and had more positive assessments of their communities, themselves, and their lives. These analyses support the contention that there is concordance between the CWB and other dimensions of well-being.

Endnotes

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1 In this chapter, communities have been grouped by score into three broad categories: below average, average, and above average.

2 CWB scores have been calculated by researchers at Indian and Northern Affairs Canada (INAC) and the University of Western Ontario (UWO) for all communities in Canada that were completely enumerated in the 2001 Census (McHardy & O'Sullivan, 2004).

3 $H = 40.61$, $p < .001$

4 $H = 33.54$, $p < .001$

5 Wave 1 $Z = 3.69$, $p < .001$; wave 2 n.s.

6 Wave 1 $Z = 6.29$, $p < .001$; wave 2 $Z = 5.97$, $p < .001$

7 Wave 1 $Z = 4.42$, $p < .001$; wave 2 $Z = 4.77$, $p < .001$

8 Wave 1 $H = 39.91$, $p < .001$; wave 2 $H = 29.25$, $p < .001$

9 Wave 1 $Z = 4.49$, $p < .001$; wave 2 $Z = 3.12$, $p < .01$

10 Wave 1 $Z = 3.42$, $p < .01$; wave 2 $Z = 3.55$, $p < .001$

11 Wave 1 $Z = 6.17$, $p < .001$; wave 2 $Z = 5.48$, $p < .001$

12 Wave 1 $H = 22.32$, $p < .001$; wave 2 $H = 26.42$, $p < .001$

13 Wave 1 $Z = 2.53$, $p < .02$; wave 2 $Z = 2.40$, $p < .02$

14 Wave 1 $Z = 3.43$, $p < .01$; wave 2 $Z = 3.84$, $p < .02$

15 Wave 1 $Z = 4.72$, $p < .001$; wave 2 $Z = 5.18$, $p < .001$

16 Wave 1 $\chi^2 = 36.39$, $p < .01$; wave 2 $\chi^2 = 74.70$, $p < .001$

17 Wave 1 adjusted residual = 2.8, $p < .01$, wave 2 adjusted residual = 2.1, $p < .05$

18 Wave 1 adjusted residual = n.s.; wave 2 adjusted residual = 2.3, $p < .05$

19 Wave 1 adjusted residual = -3.3, $p < .001$; wave 2 adjusted residual = -2.9, $p < .01$

20 Wave 1 adjusted residual = n.s.; wave 2 adjusted residual = -1.9, $p < .1$

21 Wave 1 adjusted residual = n.s.; wave 2 adjusted residual = -1.9, $p < .1$

22 Wave 1 adjusted residual = n.s.; wave 2 adjusted residual = -2.6, $p < .01$

23 Wave 1 adjusted residual = n.s.; wave 2 adjusted residual = 2.9, $p < .01$

24 Wave 1 adjusted residual = n.s.; wave 2 adjusted residual = -2.4, $p < .05$

25 Wave 1 adjusted residual = n.s.; wave 2 adjusted residual = -2.4, $p < .05$

26 Wave 1 adjusted residual = -2.2, $p < .05$; wave 2 adjusted residual = -2.1, $p < .05$

27 Wave 1 adjusted residual = 1.8, $p < .1$; wave 2 adjusted residual = 3.5, $p < .001$

28 Wave 1 adjusted residual = n.s; wave 2 adjusted residual = 4.2, $p < .001$

29 Wave 1 adjusted residual = 1.9, $p < .05$; wave 2 adjusted residual = 3.1, $p < .01$

30 $\chi^2 = 14.82$, $p < .01$

31 wave 1 $\chi^2 = 180.16$, $p < .001$; wave 2 $\chi^2 = 154.07$, $p < .001$

32 Wave 1 adjusted residual = 10.9, $p < .001$; wave 2 adjusted residual = -9.2, $p < .001$

33 Wave 1 adjusted residual = 2.6, $p < .01$; wave 2 adjusted residual = n.s.

34 Wave 1 adjusted residual = 9.9, $p < .001$; wave 2 adjusted residual = 10.1, $p < .001$

35 $\chi^2 = 5.66$, $p < .1$

36 Adjusted residual = -2.2, $p < .05$

37 $\chi^2 = 6.23$, $p < .05$

38 $\chi^2 = 11.85$, $p < .01$

39 $\chi^2 = 5.41$, $p < .10$

40 $\chi^2 = 32.00$, $p < .001$

41 Adjusted residual = 2.5, $p < .05$

42 Adjusted residual = -4.0, $p < .001$

43 Adjusted residual = 2.6, $p < .01$

44 $H = 8.59$, $p < .05$

45 $H = 16.42$, $p < .001$

46 $H = 27.44$, $p < .001$

47 $H = 35.13$, $p < .001$

48 $H = 9.20$, $p < .05$

49 $H = 26.16$, $p < .001$

50 $Z = 3.34$, $p < .01$

51 $Z = 3.96$, $p < .001$

52 $Z = 3.318$, $p < .01$

53 $Z = 5.27$, $p < .001$

54 $Z = 3.04$, $p < .01$

55 $Z = 4.75$, $p < .001$

56 Education $Z = 2.97$, $p < .01$; safety $Z = 2.77$, $p < .01$; housing $Z = 5.18$, $p < .001$; drinking water $Z = 5.773$, $p < .001$; jobs $Z = 2.4$, $p < .02$, and the economy $Z = 4.53$, $p < .001$

57 $H = 4.96$, $p < .10$

58 $H = 14.88$, $p < .01$

59 $Z = 2.73$, $p < .01$

60 $Z = 2.11$, $p < .02$

61 $Z = 3.75$, $p < .001$

62 $Z = 2.19$, $p < .02$

63 $H = 40.31$, $p < .001$

64 $Z = 6.34$, $p < .001$

65 $Z = 3.78$, $p < .001$

66 $H = 5.67$, $p < .10$

67 $H = 32.75$, $p < .001$

68 $H = 9.34$, $p < .01$

69 $H = 21.02$, $p < .001$

70 $Z = 3.80$, $p < .001$

71 $Z = 2.196$, $p < .02$

72 $Z = 4.11$, $p < .001$

73 $Z = 3.504$, $p < .001$

74 sad/depressed $Z = 5.54$, $p < .001$; quality of life $Z = 2.32$, $p < .02$; pride $Z = 2.93$, $p < .01$; control $Z = 3.85$, $p < .001$

75 person of worth $H = 33.67$, $p < .001$; person of merit $H = 32.32$, $p < .001$; satisfied with self $H = 6.97$, $p < .05$; do things well $H = 7.82$, $p < .05$; and life is worthwhile $H = 64.96$, $P < .001$

76 $Z = 3.157$, $p < .01$

77 $Z = 3.71$, $p < .001$

78 $Z = 2.37$, $p < .02$

79 $Z = 6.25$, $p < .001$

80 $Z = 4.07$, $p < .001$

81 $Z = 3.557$, $p < .001$

82 $Z = 3.59$, $p < .001$

83 person of worth $Z = 5.78$, $p < .001$; person of merit $Z = 5.38$, $p < .001$; satisfied with self $Z = 2.44$, $p < .02$; do things well $Z = 2.48$, $p < .02$; and life is worthwhile $Z = 7.27$, $p < .001$

84 $\chi^2 = 7.04$, $p < .05$

85 Adjusted residual = -2.7, $p < .01$

86 Adjusted residual = 1.9, $p < .05$

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