

Chapter 4

How's the job?

Are Trust and Social Capital Neglected Workplace Investments?

John F. Helliwell, Haifang Huang, and Robert D. Putnam¹

This chapter investigates trust and social capital as potentially beneficial yet neglected investments in the workplace. We define social capital as networks together with shared norms, values and understandings that facilitate co-operation within or among groups. We use subjective measures of life satisfaction to value the climate of trust in the workplace, set in the context of life as a whole. Using data from two separate Canadian surveys, and one large US survey, we find that the climate of trust in the workplace is strongly related to subjective well-being, even after allowing for individual personality differences. For example, results from one of the surveys suggests that moving one point on a 10-point scale of workplace trust affects life satisfaction about the same amount as a 40% change in income. The size of these effects, often referred to as compensating differentials, suggest unrecognized opportunities for managers and employees to increase satisfaction and productivity by building better workplaces. Throughout the chapter, we examine the determinants of workplace trust and explore differences among sub-groups of workers. We also consider why such large unrecognized opportunities for improving

¹ Helliwell is with the Canadian Institute for Advanced Research and the University of British Columbia, Huang with the Department of Economics at the University of British Columbia, and Putnam with Harvard University and the University of Manchester. We are grateful for invaluable access to GSS and EDS data provided through the UBC Research Data Centre supported by Statistics Canada, the Social Sciences and Humanities Research Council, and UBC. This paper is part of the 'Social Interactions, Identity and Well-Being' research program of the Canadian Institute for Advanced Research, and the research is also supported by grants from the Social Sciences and Humanities Research Council of Canada.

the quality of workplace social capital remain, and suggest some plausible investment strategies for capturing this potential.

Introduction

The chapter began with the recent finding that workplace trust and other measures of the quality of life on the job have strikingly high income-equivalent values (Helliwell and Huang 2005). These values are so great that they suggest the existence of many unexploited opportunities for investment in the workplace. This chapter examines these possibilities in more detail. First, we discuss our methodology to attach values to trust and social capital in the workplace. Then we consider the latest evidence of the values of non-financial aspects of the job, with special attention to trust on the job, often taken a key indicator of the quality of workplace social capital.

We use the OECD definition of social capital as “*networks together with shared norms, values and understandings that facilitate co-operation within or among groups*” (OECD 2001, 41). Because there are many established survey measures of trust in general and within specific domains, many previous attempts to establish the implications of social capital have used trust as an independent variable, particularly where economic growth rates are the variable to be explained². We also give trust a central role, partly because it has such well-measured and clearly defined linkages to subjective well-being, but also because it has strong empirical and conceptual links to ‘trustworthiness’ which in turn deserves to rank foremost among norms that facilitate social capital, and thereby co-operation within or among groups³.

Methodology

Most previous attempts to value non-financial aspects of jobs have focussed on job hazards, and have used wage equations with safety as the independent variable and wages or incomes as the dependent one. The most obvious estimation problem is that posed by unmeasured

² See, for example, Knack and Keefer (1997), Helliwell (1996).

³ See Putnam (2000) and Halpern (2005).

differences in employee ability and training. With the usual assumption that safety is a normal good, more able or better-trained workers are in a position to choose jobs that produce more income and more safety. Such formulae often follow an approach similar to the one below. In this equation, where y_i is the earnings level for worker i , X_i is a vector of job characteristics, applicable to worker i 's job, the compensating differentials – the prevailing market valuations of job attributes – are estimated by the coefficient vector β . The Z_i are measured characteristics of worker i , and the Zu_i are unmeasured characteristics of the worker, the job, or the local marketplace. The ε_i are the assumed error terms.

A typical estimation form is:

$$(1) \ln(y_i) = \alpha - \beta X_i + \gamma Z_i + \theta Zu_i + \varepsilon_i$$

However, multiple econometric and other difficulties exist with this approach. Cross-sectional data often underestimate the compensating differentials - the estimation of β^4 . This occurs because the unobservable earning potential becomes part of the error term, thus making the error term (ε_i) correlated with both the dependent wage variable (y_i) and the job characteristics (Z_i). Intuitively, this happens because people with greater ability will generally use their market attractiveness to acquire jobs that have both high wages and good working conditions. This creates a positive association between more enjoyable jobs and higher wages, thereby masking the trade-off between pay and work environment that workers face.

These econometric difficulties suggest it may be more promising to use subjective well-being as a direct measure of utility. In this case, compensating differentials would be the ratio of the well-being effects of job characteristics over the well-being effect of income. In the equations

⁴ This is demonstrated more explicitly by Hwang, Reed and Hubbard (1992) and Helliwell and Huang (2005).

below, μ and δ are measures of marginal utility and the compensating differentials (β) reflect the ratio of μ , the job characteristics coefficient, over δ , the coefficient on the log of income.

Our specific approach has three steps: first, to create a linear general utility function $U(y, X)$ at the equilibrium point; second, to estimate the marginal contributions of job characteristics and income to life satisfaction; and third, to calculate the compensating differentials directly from these estimated coefficients, as ratios of the job characteristics coefficients to the coefficient on the (log of) income. To the extent that jobs are actually available with the characteristics in question, these ratios should reflect the prevailing market valuations of job attributes⁵.

In its general form, the proposed strategy has LS stand for life satisfaction, $\Phi_y(y)$ is the functional form of income, $\Phi_x(X)$ is the functional form of job attributes, Z_i are all other controls. The compensating differentials β from equation (1) are then derived using equation (3). The transformations with $\Phi()$ are needed in some cases to have uniform coefficients δ and μ , which denote marginal utilities, across heterogeneous agents. These functional forms accommodate a concave utility.

The proposed strategy is as follows:

$$(2) \text{ LS}_i = \delta\Phi_y(y_i) + \mu\Phi_x(X_i) + \gamma Z_i + \varepsilon_i$$

$$(3) \beta = \mu / \delta$$

We have built multiple elements into the equations so that they can cover a variety of situations. First, by measuring income in its log form instead of its level - with $\Phi_y(y)=\log(y)$ - we are able to estimate compensating differentials as proportions of income. This approach reflects both standard economic assumptions and the many empirical results suggesting that less affluent agents derive greater utility from extra income. Second, for job attributes, we initially adopted a simplistic view that their per unit contribution to workers is the same regardless of

⁵ A very similar approach has been used by Frey and Stutzer (2004) to value commuting time in Switzerland., and by Van Praag and Baarsma (2005) to estimate compensating differentials for aircraft noise in the neighbourhoods surrounding Amsterdam Airport.

income or level of X , so that $\Phi_x(X_i) = X_i$. Third, we use Z_i to control for many observed heterogeneities across agents, including, in some tests, personality differences. We also search for, and find, evidence that marginal valuations of income and other job characteristics might differ among groups of workers; namely, that those found in low-quality working environments might, on average, care less about the non-financial aspects of their jobs.

Evidence on the Value of Workplace Trust and Social Capital

Our results are based on two recent Canadian surveys and one US survey. The two Canadian surveys are the 2003 second-wave SSHRC-supported Equality, Security, and Community survey (ESC hereafter), and the 2003 General Social Survey-17: Social Engagement Survey (GSS hereafter). The US survey is the 2000/01 Social Capital Community Benchmark Survey (US Benchmark hereafter).

Our sample includes all those respondents who are currently employed and on whom we have observations on the other key variables. The sample size is about 2,500, 10,500 and 16,500 for the three surveys, respectively. The main results will be based on the Canadian ESC survey because its second wave was specifically designed to assess some aspects of workplace relations, while also measuring their importance for life satisfaction. This survey also examined trust in management that had the largest effect on life satisfaction. The other two surveys measured trust among colleagues, instead of trust in management, and covered fewer other aspects of the job.

None of the surveys asks both about trust among co-workers and trust in management. As a result, we cannot address directly some of the interesting differences among bonding, bridging and linking social capital (OECD 2001, 42) in the workplace. We can utilize informal triangulation to suggest hypotheses for future research. For example, Canadian ESC data show that respondents who are union members are far less likely to rate their workplaces high on the extent to which management can be trusted. US Benchmark and Canadian GSS data show that union members and non-union employees rate trust in colleagues similarly. These findings

suggest that the type of bonding social capital unions provide is more likely to be associated with trust among colleagues than between labour and management. These results also suggest that trust of management is likely to be high when high levels of bridging and linking social capital exist. By contrast, linking social capital may be lower in union shops. This may be because workers in jobs marked by low-quality relations between themselves and management are more likely to approve unionization, and because the bonding social capital fostered in a union environment may encourage solidarity against management.

We start by presenting our ESC data on life satisfaction and trust in management. Figure 1 divides the ESC respondents according to how highly, on a scale of 1 to 10, they “would rate the level of trust that workers have in management at your workplace”. Respondents’ ratings of the workplace trust environment are mapped against their average life satisfaction (see Figure 1). The respondents are drawn randomly from the whole working population, and hence include workers and managers. In principle, these two groups could both answer the question in the same way, because it specifically addresses not the respondent’s own level of trust in management, but the general climate of trust between workers and management. The bars in the charts show by their height the average level of life satisfaction recorded, again on a scale of 1 to 10, by those giving each of the possible answers to the workplace trust question. It is noteworthy that the average level of workplace trust is quite high, and that there are very few who rate trust at 5 or below on the 10-point scale. The number is small enough that we gathered all these respondents together for the purposes of Figure 1.

There is a very strong positive relation between assessments of workplace trust and average measures of life satisfaction. An increase in workplace trust equal to 1 standard deviation (2.3 on the 10-point scale, as shown in Appendix 1) produces an increase of .33 points in life satisfaction (see Table 1). Thus an increase of one point in the 10-point trust scale is associated with an increase of life satisfaction of .17 points in life satisfaction.

How big is this effect? One way to measure it is to divide respondents by income class, and see how much life satisfaction rises with income, with and without accounting for all of the other variables. The ESC results reported in Helliwell and Putnam 2005, Figure 17.2d suggest that moving from the bottom (<\$20,000 annual household income) to the top (>\$100,000) is matched by an increase of less than 0.3 points on the 10-point life satisfaction scale, roughly of the same magnitude as the benefit from an increase in workplace trust of one standard deviation, or equivalently a jump in ranking that covers about one-third of the sample, starting from the middle.

For our current research we are mainly using personal income in logarithmic form so that we can interpret the estimated compensating differential as proportional changes of income. In Table 1, we include estimates from the ESC2, the GSS, and the US Benchmark Survey. These surveys use different scales for their workplace trust variables. For comparability across surveys, we use the standardized score instead of the survey response to the questions⁶. All three surveys show that workplace trust is an important factor in explaining interpersonal differences in happiness or life satisfaction. The ESC results suggest that if typical employees move from one job to another, and their rating of trust rises by 2.3 points, then their life satisfaction will also rise as long as their new income was more than two-fifths as large as before. In the original 1-10 point scale, a one point increase in trust in management is associated with an approximate 40% change in income. The results in the other two larger surveys ask about workplace trust among co-workers are directionally similar (see Table 1). Although the type of trust being asked about is

⁶ The original survey response from ESC2 has a ten-point scale. The GSS has a five-point scale. The US Benchmark has a four-point scale. After standardization, all these trust variables have zero mean and a standard deviation of one. The ratio of the coefficient of the standardized trust measures to that of income is the estimate of the income equivalent (or compensating differential) for a movement of one standard deviation. Starting from the mean, such a movement covers about 35% of the sample.

conceptually different, employees attach just as much or more value to trust than in the ESC survey⁷.

People are often sceptical of these results. If workplace trust is so valuable to workers, and is probably also good for productivity, why are there any workplaces that exhibit low levels of trust? This is a good question, and one that we shall try to address. But first, to deal with some of these issues, Helliwell and Huang (2005) employed a large number of tests to ensure that these values are not an artefact of some special features of the particular survey, of the nature of life satisfaction data, of individual personality differences, or of correlations with some critical omitted variables affecting life satisfaction. The study presented consistent results from three Canadian surveys: the 2003 Ethnic Diversity Survey, the GSS and the ESC. The GSS contains questions designed to capture features of the respondent's personality, many of which might make them more inclined to report high life satisfaction and also to see the bright side of their work. One such personality indicator in GSS is what Statistic Canada labels as the "mastery scale". This index is based on a principal component analysis of the extent of agreement with the following statements: "I have little control over the things that happen to me"; "There is really no way I can solve some of the problems I have"; "There is little I can do to change many of the important things in my life"; "I often feel helpless in dealing with the problems of life"; "Sometimes I feel that I'm being pushed around in life"; "What happens to me in the future depends mainly on me"; "I can do just about anything I really set my mind to do".

⁷ There are some other non-comparabilities among the three surveys, as the ESC2 and the GSS measure well-being using a 10-point assessment of life satisfaction while the Benchmark Survey employs a 4-point assessment of happiness. Helliwell and Putnam (2005) show that happiness and life satisfaction questions do produce slightly different response patterns, when asked of the same subjects, although the signs and sizes of most of the estimated coefficients are similar. Using ratios of standardized coefficients deals reasonably well with the issue posed by using different scales for the answers to the trust questions in these surveys. The ESC sample excludes the self employed, an adjustment that was not possible for the Benchmark sample. Furthermore in ESC2, we use the preferred measure of personal income, but in US Benchmark, the only income measure is the household income. In GSS, we use household income for consistency with our earlier papers.

Although these individual measures of personality were, as expected, strong determinants of reported life satisfaction, they did not materially affect the key coefficients of interest, and as the result, the compensating differentials were robust across personality differences. In Table 1, we add the personality measure to the last column. The results show that even though the mastery scale enters strongly and significantly, the estimated compensating differential, which is measured by the ratio of coefficients, drops only marginally from 1.3 to 1.2.⁸

In Table 2 we turn to more fully specified models for life satisfaction in the ESC and GSS surveys for Canada and happiness in the US Benchmark survey. Workplace trust continues to exhibit significant well-being effects in regressions that add basic demographic information and numerous controls. While the coefficients drop somewhat when measures of general trust and trust in other domains are included, this is to be expected. Personality and other unmeasured differences among respondents might lead them to be optimistic or dyspeptic in their assessments of trust.

Table 2 – which is made up of three sub-tables, one for each survey – depicts the results using life satisfaction in the ESC and GSS surveys and happiness in the US Benchmark survey. The first column in each sub-table is always for the largest possible sample of working population, which is our focus for now.

⁸ We adjusted the mastery scale to remove its correlation with income. We had observed that the effects of income on life satisfaction are much smaller when the unadjusted mastery scale is included in the equation. This may be because those with better coping personalities are more able to find and hold higher-paying positions. It may also be because those who have higher incomes, from any source, may feel better placed to deal with whatever comes their way. The coefficient on non-financial job satisfaction, on the other hand, is unchanged by addition of the mastery scale. Combined with the lower estimated effects of income, this means that making explicit allowance for individual personality differences raises rather than lowers the size of the resulting estimates of compensating differentials. We wish our estimates of these differentials to err if anything on the conservative side (because they are likely to be thought surprisingly large), so we base our results on a measure of mastery scale adjusted to remove its correlation with income. This restores the income coefficient to what it was without the inclusion of the mastery scale. This also makes it easier to compare the GSS results with those from the other surveys, since the ESC and the EDS do not have personality variables.

The findings are striking. Workplace trust is the single most important trust variable in the Canadian ESC and GSS results and it is rivalled only by trust in police in the US Benchmark survey results. In addition, all of the measures of domain trust are highly significant statistically and contribute substantial fractions of the variation in well-being. Table 4 shows the compensating differentials, which are expressed as the percent change of income that has an equal effect on life satisfaction as occurs when workplace trust moves one-third of a standard deviation, which covers about 10% of the sample when starting from the mean. For the ESC and the US Benchmark survey, the estimates are both about 32%. The estimate is higher for the GSS, reaching 60% of household income.

The effects of other variables – such as age, marital status, health – on well-being are similar to those found by Helliwell and Putnam (2005). Age shows a U-shaped pattern where well-being is higher for the young and the old than for those in the middle. Married persons have higher well-being than divorced ones. People in better physical health have higher well-being. Respondents with more social capital also have higher well-being; social capital is measured in this case by the extent and intensity of involvement in a variety of family, neighbourhood and community networks. Those with stronger religious beliefs tend to report greater life satisfaction in both countries, supplemented in the US Benchmark sample by positive happiness effects from more frequent involvement in church activities. Income's effects are significant enough in both surveys to calculate compensating differentials with a reasonable degree of statistical significance – especially in the ESC data. However, more education appears to have no well-being bonus, once its indirect effects flowing through health, income and social capital are separately accounted for.

In Table 2 we also split our samples in several ways to see if our general findings can be replicated in sub-samples of the working population. The first split is between employees who are

members of unions and those who are not. This split, which is analyzed in more detail in a companion paper (Helliwell and Huang 2006), has much more salience in Canada than in the United States. As shown by the sample and sub-sample properties reported in Appendix 1, in both countries union members have higher incomes, are better educated, and older. They have much lower trust in management (in the ESC, the only survey to ask this question), but do not seem to differ from non-union workers in their degree of trust in their colleagues. Union members are if anything slightly happier, on average, especially in the ESC sample, where the difference is revealed by a significant positive coefficient on the union variable in the first column of Table 2. The union share is far higher in the Canadian sample, reflecting the aggregate differences in unionization in the two countries⁹. The happiness equations for the Benchmark sample split by union status are in all respect indistinguishable, showing that the general specification is equally applicable to union and non-union members¹⁰

The ESC results show more significant differences in coefficients between the union and non-union samples. The most important of these, for our consideration of workplace trust, is that union members attach systematically more importance to income and less to the climate of workplace trust than do non-members. This may reflect to some extent the results of job matching, since the ESC evidence suggests that the union respondents are in general more highly paid, and have lower levels of trust in management than do the non-union respondents. Thus those who care relatively more about income than about the climate of workplace trust are more likely than are other workers to either seek or remain in a union environment. That is one interpretation of the pattern of coefficient differences between the union and non-union workers samples by the ESC. The differences are substantial, as the compensating differential for

⁹ This is so despite the fact that the Benchmark question refers to involvement with a labor organization, while the ESC data are derived from a more specific question about union membership.

¹⁰ The US Benchmark results differ slightly in that the non-union workers show an (insignificantly) greater average income effect than do the union workers.

workplace trust is more than twice as large for the non-union as for the union respondents. It is essentially only for these two key coefficients that the life satisfaction results differ significantly between the union and non-union subsamples of the ESC. Similar patterns are revealed by the GSS results. It is observed that union members assign greater weight on income, and as the result has lower compensating differential for trust in colleagues.

We turn next to samples split by immigration and ethnic status. The Benchmark survey does not include a split based in immigration status, so the only split is based on ethnicity, with non-Hispanic whites in one group and the rest of the population in the other. The ESC sample is split two different ways: immigrant and Canadian-born, and visible minorities (non-whites) and the rest of the sample. In the ESC sample, as shown in Appendix 1, both the immigrant and the visible minority employee sub-samples have lower life satisfaction but equal job satisfaction, and greater trust in management¹¹, than the rest of the population. The immigrant and visible minority sub-samples also have substantially more respondents with university degrees.

The ESC sample provides some evidence that both the immigrant and visible minority respondents value income less highly and the climate of workplace trust more highly, than do other respondents¹². Most other coefficients are similar in the two groups. However, the same pattern is not present in the results from either the US Benchmark or the Canadian GSS. In the US study, non-Hispanic whites assign much greater weight to workplace trust than does the rest of the population. The latter attach greater weight to income instead. Part of the variation may come from differences in income gaps between Canada and US. While the income gap exists in both countries, it is much wider in the United States. In the GSS, the income coefficients are

¹¹ But they have lower general social trust. Soroka, Helliwell and Johnston (2007) show that this difference in social trust can be explained mainly by differences in the climate of social trust in the countries from which the immigrants came, confirming the earlier US results of Rice and Feldman (1997) and Putnam (2000).

¹² In the Benchmark survey, however, trust of co-workers is more important for non-Hispanic whites than for other employees. This is likely to reflect that trust between management and workers is different in important ways from trust among co-workers

small and weak for Canadian-born and those who are not part of the visible minority. However, the imprecise income coefficients produce large standard errors on the compensating differentials.

In sum, while there' some striking differences between the various sub-samples, we consistently find workplace trust as one of the most important variables in explaining well-being, across groups of populations, across surveys, and across countries. Given the importance of workplace trust for so many workers, and its effect on productivity, the question remains: why do *any* workplaces exhibit low levels of trust? We address this question next.

What Explains Differences in Workplace Trust?

Because workplace trust has such large well-being effects, it is important to discover how such trust is determined, and how it might be built. To do so in a satisfactory manner would require workplace-based surveys to supplement our current surveys, which provide little by way of workplace vs. job characteristics. Nonetheless, we gleaned what we could from our current data (see Table 3).

The strongest variable explaining differences in trust in management is the respondent's membership in a union. When we split the sample between union and non-union members, we find that unionized workplaces, or at least unionized employees, have lower trust in management. This may reflect the fact that the organizing climate for unions may be better in workplaces where management is not trusted. The adversarial nature of bargaining may also encourage and sustain bonding social capital among union members and discourage trust of management. Interestingly, the mistrust of management does not reflect general mistrust; in fact, union members generally have slightly higher social trust than non-members (see Appendix 1). Trust equations (Table 3) also support this finding by showing that non-union employees are the only ones with a positive linkage between general trust and trust in management.

On the ESC survey, respondents with higher incomes systematically rate trust in management lower. This is true both in simple regression ($t=7.7$) as well as the more fully specified equations shown in Table 3. Not surprisingly, trust in management is rated higher by those who do not expect to lose their jobs in the next 12 months ($t=7.6$ in a simple regression). Those who have changed jobs more frequently in the past 12 months rate trust in their current jobs slightly higher than do others, perhaps reflecting the role that the expected trust climate had on their job choice. Diversity in the workplace - as measured by education, age, religion, ethnicity, language, income or social class - has no effect in the Canadian climate of trust in management.

Only a few differences appear when the sample is split by immigration or visible minority status. The most striking one is that the number of job moves in the last 12 months correlates negatively with trust in management; suggesting that immigrants and visible minorities may have less opportunity to move to workplaces characterized by higher trust in management. However, because these respondents rate management's trustworthiness more highly than other respondents (see Appendix 1), they may have less reason to search for and move to higher trust workplaces.

Overall different patterns emerge for the effects of job characteristics on workplace trust and life satisfaction. Several characteristics of the respondent's job, which may well be shared with other jobs in their workplace, correlate significantly with the climate of workplace trust. Jobs with a variety of tasks and with adequate time available to perform them have positive effects. Positions that are free of conflicting demands and involve a higher degree of decision-making produce even stronger increases in trust. Such jobs may have more managerial tasks and a more favourable view of management (see Table 3). This engagement may be more important than closeness to management, because the decision-making effect is just as strong for union members as for non-members. Interestingly, this link does not appear in the visible minority and

immigration groups. Other individual variables with significant linkages to the assessments of workplace trust include health and frequency of church attendance.

Skill content is not significant for workplace trust. This contrasts with life satisfaction, which correlates positively with jobs that require skills but not with those requiring decision-making (see Table 2). The latter difference may be because the strains of decision-making make the job more engaging, but increase the costs on the home front (Helliwell and Huang, 2005). Only workplace-specific data will permit us to separate the effects of the respondent's own income from those of a workplace with higher paid jobs.

The GSS and the US Benchmark ask respondents to evaluate trust in their co-workers. Unlike the findings from ESC, which measured trust in management, union members and non-members show similar levels of trust in co-workers. In the ESC, the cross-group difference was half a standard deviation (or less). The US Benchmark survey also asked about the frequency of socialization with co-workers outside of work. Not surprisingly, this variable is positive and significant with trust in colleagues. The positive effect of general trust is also not surprising, as workplace trust is a key source of evidence for each respondent's overall assessment of the extent to which other can be trusted.

Why Might Under-Investment Be Occurring, and What Might Be Done About It?

The question remains: if this is true, then why have companies not created more workplaces with high levels of trust? If this is to reflect a fully informed equilibrium, then it must be correspondingly expensive to change the climate of trust in management within a workplace, and for employees to find and move to more trustworthy workplaces. Alternatively, perhaps excessive emphasis on pay as the principal benefit of employment, and the lack of information about the importance of workplace trust and social capital may also have deflected what might otherwise have been a systematic search for ways to improve life in the workplace.

Pay, which is more easily measured and compared than social relations, is often seen as the most important way of rewarding employees. This misperception is probably exacerbated by the content of university courses in economics (Rabin 2002), management training and the general structure of management, which concentrate on conventionally measured economic outcomes. Human relations departments, who might make the case for social capital and workplace trust, are frequently on the decision-making periphery, expected to find new employees to replace those who leave, and to hold birthday and retirement parties for those who remain.

There are experimentally well-established features of decision-making that might also explain why firms and employees pay inadequate attention to workplace trust and social capital. In their quasi-experimental study of the well-being effects of lottery outcomes for undergraduate houses, Dunn et al (2003) found, as expected, that students would focus too much on the obvious (but less important) physical features of the different houses, and not enough on subtle (but more important) differences in their social environments. This was the case even though students, when asked to rank the relative importance of social and physical features of their environments, were aware that the social environment was more important. In a similar vein, Frey and Stutzer (2004), in their survey of the related literature, conclude that “Goods and activities characterized by stronger intrinsic attributes (such as spending time with family and friends and pursuing hobbies) are undervalued compared to those characterized by stronger extrinsic attributes (such as most consumer goods).”

Two other factors - the silo-like separation of management functions and the emphasis on delivering short term profits – can reduce the capacity or will to find and repair situations of low trust. We have ourselves encountered situations where even experienced senior executives have been uneasy about learning too much about the climate of trust within their organizations. This is an understandable risk-avoidance strategy, but is quite likely to be counter-productive. Enduring

trust – and often higher productivity - is best built on the mutual willingness to collaborate in weaving the fabric of mutual trust before it starts to crumble.

Recent measures designed to reduce the perceived risks of corporate misbehaviour or malfeasance may unintentionally lower trust and exacerbate some of the situations described above (what might be described as Sarbanes-Oxley effects). These measures are often introduced to reduce the risks of malfeasance or at least control the potential legal liabilities. Nevertheless, they may have inadvertently damaged the climate of trust by increasing reporting burdens while simultaneously creating the perception that employees and managers are not to be trusted. Lack of trust breeds suspicion, but actions designed to assuage suspicion may have the corollary effect of lessening the extent to which employees and managers feel themselves to be collaboratively engaged.

A final element of human psychology that might help to explain chronic under-investment in workplace trust and social capital is present-biased preferences (O'Donoghue and Rabin 1999), which represent an excessive concentration on the short-term. Within economics, this is part of the explanation for the co-existence of gambling and insurance, and the widespread incidence of addictive behavior and of high-interest payday and credit-card debt. In the case of trust and social capital, this is complicated by the asymmetry whereby it takes long-sustained investment to build trust but only a few moments of careless inattention, or a longer period of benign neglect, to destroy it.

So what can be done to maintain and improve workplace trust? Our results do not speak directly to the design of strategies to build and maintain social capital in the workplace, but the empirical and well-being literature suggests a few general approaches. All of these invite and need a stronger experimental base before they are implemented.

The first and simplest strategy might be to assess, or re-assess, each major change in administrative procedures, especially those designed to tighten administrative controls and increase reporting. The important thing is to ensure that they are done in such a way as to

increase rather than decrease trust. This follows the ‘do no harm’ principle, and needs to be implemented before, rather than after, such changes are made, as it is easier to damage trust than to restore it.

A second strategy might be to encourage and document experimental approaches and initiatives in decision-making and reporting structures within workplaces that may yield positive results. The lack of solid research on the creation and maintenance of social capital within the workplace needs to be filled. For an experimental strategy to work, it must be recognized by all that many or even most of the trials will fail. That is the whole point of an experimental strategy - only by trying many alternatives will the right answers come to light.

Third, strategies to build social capital and engender trust are almost sure to be more effective if they are driven by innovation and energy from the bottom rather than the top of the organization. Why? Life satisfaction is based on matching feelings of engagement and efficacy. For employees to feel both engaged and efficacious, they must be convinced that they have had an instrumental role in design and an effective role in delivering what happens in the workplace. This sharing of both design and execution builds social capital and trust of a high order.

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Figure 1: Life Satisfaction at different levels of trust in management, from 2003 Canadian ESC

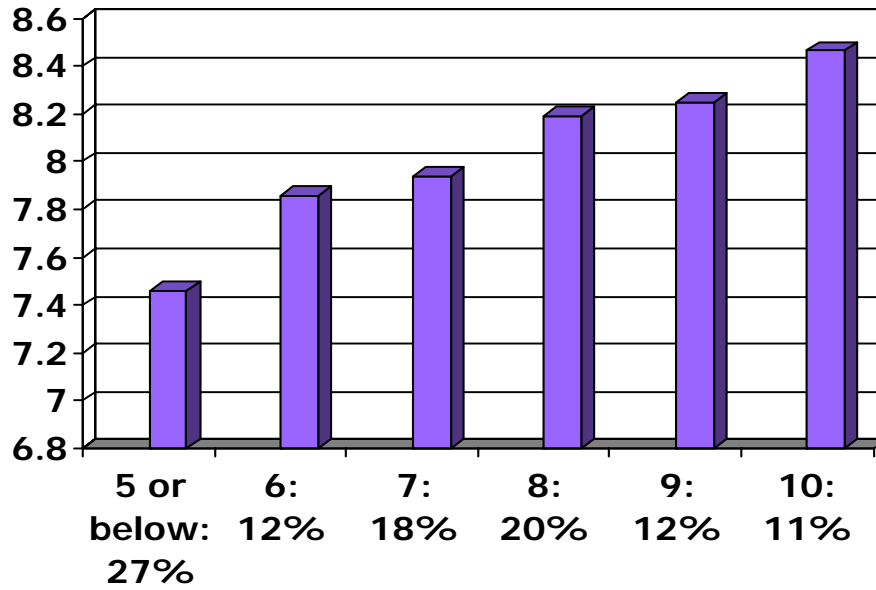


Table 1: Comparing well-being effects of income and workplace trust

Sample	Canadian ESC-2 Working population(see note 1)			Canadian GSS Working population				US Benchmark Working population(see note 1)		
Dependent Variable	Life satisfaction, 1-10 point scale			Life satisfaction, 1-10 point scale				Happiness: 1-4 point scale		
Regression method	Survey Linear Regression			Survey Linear Regression				Survey Linear Regression		
Job: Trust in management, standardized score	0.311 [0.038]**		0.335 [0.038]**							
Log of personal income		0.263 [0.048]**	0.313 [0.048]**							
Trust in co-workers, standardized score				0.306 [0.018]**	0.31 [0.019]**	0.256 [0.019]**		0.125** [0.006]		0.112** [0.005]
Log of household income (see note)					0.3 [0.033]**	0.272 [0.032]**	0.246 [0.032]**		0.157** [0.008]	0.133** [0.008]
Mastery scale net of income effect (GSS only)							2.238 [0.130]**			
Constant	7.952 [0.033]**	5.204 [0.507]**	4.677 [0.510]**	7.972 [0.016]**	4.643 [0.367]**	4.972 [0.355]**	4.678 [0.355]**	3.332** [0.007]	1.637** [0.083]	1.902** [0.080]
Observations	2522	2522	2522	10676	9346	9346	9039	16519	16519	16519
R-squared	0.04	0.01	0.05	0.05	0.01	0.06	0.11	0.05	0.03	0.07

Standard errors in brackets

* significant at 5%; ** significant at 1%

Note 1: Self-employed is excluded in the two Canadian surveys.

US benchmark survey does not provide information on self-employment status. Therefore the sample may include self-employed.

Note 2: The Benchmark survey does not provide information on personal income, household income is used

Note 3: Please refer to Appendix Table 1 for descriptive statistics by samples

Table 2-a: Expanded models on the well-being effects of income and workplace trust, ESC2

Survey Ordered Probit								
Sample	Canadian ESC-2, year 2003							
	Working population							
	Whole sample	Union Members	The rest	The rest	Immigr- -ant	The rest	Visible Minority	The rest
Dependent Variable	Life satisfaction; 1-10 point scale							
Log of personal income	0.194 [0.039]**	0.154 [0.041]**	0.218 [0.072]**	0.18 [0.045]**	0.118 [0.065]	0.216 [0.049]**	0.126 [0.074]	0.211 [0.046]**
Job: Trust in management, standardized score	0.189 [0.025]**	0.165 [0.026]**	0.142 [0.037]**	0.244 [0.034]**	0.27 [0.061]**	0.171 [0.027]**	0.369 [0.083]**	0.173 [0.026]**
Job: Requires skill		0.235 [0.109]*						
Job: Has variety of tasks		0.393 [0.105]**						
Job: Have enough time		0.199 [0.079]*						
Job: Free of conflicting demands		0.206 [0.067]**						
Job: Makes own decision		-0.029 [0.106]						
Dummy, Union member		0.138 [0.049]**						
Self-perceived health status, scaled 1 to male	0.281 [0.029]**	0.28 [0.029]**	0.275 [0.053]**	0.284 [0.034]**	0.179 [0.068]**	0.319 [0.032]**	0.107 [0.098]	0.308 [0.030]**
Age Group: 25~34	-0.128 [0.039]**	-0.132 [0.039]**	-0.091 [0.073]	-0.136 [0.050]**	-0.03 [0.096]	-0.159 [0.047]**	0.003 [0.131]	-0.151 [0.043]**
Age Group: 35~44	-0.239 [0.084]**	-0.231 [0.084]**	-0.41 [0.209]	-0.201 [0.097]*	-0.379 [0.179]*	-0.215 [0.100]*	-0.464 [0.177]**	-0.216 [0.096]*
Age Group: 45~54	-0.212 [0.090]*	-0.203 [0.089]*	-0.411 [0.201]*	-0.177 [0.107]	-0.127 [0.176]	-0.248 [0.105]*	-0.29 [0.193]	-0.205 [0.099]*
Age Group: 55~64	-0.195 [0.093]*	-0.189 [0.093]*	-0.322 [0.209]	-0.222 [0.111]*	-0.102 [0.192]	-0.236 [0.103]*	-0.27 [0.215]	-0.187 [0.102]
Age Group: 65 up	0.068 [0.109]	0.064 [0.108]	0.047 [0.238]	-0.02 [0.128]	0.395 [0.218]	-0.083 [0.129]	0.087 [0.299]	0.041 [0.120]
Marital Status: Married	0.373 [0.064]**	0.365 [0.064]**	0.401 [0.108]**	0.371 [0.079]**	0.183 [0.117]	0.448 [0.074]**	-0.027 [0.174]	0.438 [0.068]**
Marital Status: As Married	0.373 [0.084]**	0.357 [0.086]**	0.633 [0.136]**	0.232 [0.108]*	0.328 [0.185]	0.398 [0.094]**	0.435 [0.294]	0.384 [0.088]**
Marital Status: Divorced	-0.196 [0.099]*	-0.202 [0.099]*	-0.287 [0.159]	-0.124 [0.123]	-0.359 [0.190]	-0.147 [0.120]	-0.697 [0.274]*	-0.125 [0.106]
Marital Status: Separated	-0.238 [0.115]*	-0.24 [0.120]*	-0.177 [0.210]	-0.278 [0.129]*	-0.6 [0.245]*	-0.117 [0.127]	-0.575 [0.502]	-0.206 [0.114]
Marital Status: Widowed	-0.182 [0.188]	-0.206 [0.185]	-0.137 [0.307]	-0.216 [0.257]	-0.551 [0.294]	-0.091 [0.251]	0.802 [0.637]	-0.318 [0.207]
Education: High school	-0.124 [0.094]	-0.09 [0.096]	-0.159 [0.195]	-0.111 [0.111]	-0.269 [0.231]	-0.116 [0.104]	-0.023 [0.360]	-0.127 [0.098]
Education: Between	-0.118 [0.082]	-0.099 [0.083]	-0.02 [0.167]	-0.178 [0.106]	-0.235 [0.220]	-0.117 [0.091]	0.193 [0.336]	-0.155 [0.086]

Education: With University Degree	-0.164 [0.088]	-0.127 [0.090]	-0.025 [0.176]	-0.236 [0.105]*	-0.343 [0.220]	-0.12 [0.099]	0.203 [0.327]	-0.188 [0.093]*
Contacts with family member outside household	0.158 [0.071]*	0.153 [0.071]*	0.141 [0.151]	0.149 [0.091]	0.093 [0.147]	0.139 [0.089]	0.117 [0.178]	0.167 [0.082]*
Contacts with friends	0.431 [0.085]**	0.373 [0.085]**	0.249 [0.160]	0.49 [0.114]**	0.364 [0.189]	0.469 [0.099]**	0.071 [0.270]	0.467 [0.093]**
Contacts with neighbours	0.091 [0.073]	0.04 [0.072]	0.158 [0.136]	0.054 [0.085]	0.154 [0.144]	0.064 [0.083]	0.447 [0.186]*	0.034 [0.078]
Number of membership or extent of activities	0.009 [0.013]	0.008 [0.013]	0.027 [0.023]	-0.006 [0.016]	0.024 [0.029]	-0.002 [0.015]	-0.026 [0.036]	0.011 [0.014]
Trust in general	0.117 [0.047]*	0.121 [0.046]**	0.143 [0.087]	0.11 [0.056]	0.058 [0.110]	0.132 [0.058]*	0.08 [0.128]	0.113 [0.052]*
trust in neighbours	0.233 [0.063]**	0.223 [0.062]**	0.069 [0.115]	0.298 [0.077]**	0.271 [0.151]	0.223 [0.071]**	0.252 [0.187]	0.228 [0.071]**
trust in police	0.162 [0.098]	0.162 [0.099]	0.134 [0.161]	0.184 [0.133]	0.183 [0.180]	0.131 [0.115]	0.185 [0.212]	0.108 [0.109]
Importance of religion	0.153 [0.087]	0.126 [0.088]	0.241 [0.149]	0.12 [0.115]	0.178 [0.205]	0.156 [0.099]	0.401 [0.225]	0.127 [0.092]
Frequency of attending religious services	-0.029 [0.099]	-0.022 [0.100]	-0.156 [0.156]	0.03 [0.124]	-0.03 [0.224]	-0.033 [0.108]	-0.117 [0.258]	-0.007 [0.107]
cut1:Constant	1.18 [0.374]**	1.448 [0.375]**	1.185 [0.724]	1.069 [0.441]*	-0.121 [0.690]	1.505 [0.460]**	-0.002 [0.878]	1.343 [0.432]**
cut2:Constant	1.348 [0.370]**	1.616 [0.373]**	1.376 [0.734]	1.227 [0.433]**	0.086 [0.689]	1.657 [0.455]**	0.224 [0.864]	1.495 [0.431]**
cut3:Constant	1.492 [0.373]**	1.762 [0.376]**	1.511 [0.731]*	1.378 [0.431]**	0.195 [0.691]	1.818 [0.467]**	0.267 [0.873]	1.679 [0.440]**
cut4:Constant	1.769 [0.366]**	2.042 [0.372]**	1.789 [0.723]*	1.657 [0.418]**	0.416 [0.696]	2.117 [0.464]**	0.417 [0.871]	1.99 [0.432]**
cut5:Constant	2.24 [0.369]**	2.52 [0.377]**	2.17 [0.734]**	2.17 [0.421]**	1.104 [0.697]	2.51 [0.466]**	1.039 [0.868]	2.432 [0.438]**
cut6:Constant	2.578 [0.376]**	2.863 [0.383]**	2.493 [0.739]**	2.518 [0.427]**	1.419 [0.698]*	2.864 [0.472]**	1.449 [0.873]	2.761 [0.445]**
cut7:Constant	3.294 [0.375]**	3.588 [0.382]**	3.288 [0.743]**	3.206 [0.427]**	2.072 [0.700]**	3.613 [0.471]**	2.027 [0.877]*	3.512 [0.443]**
cut8:Constant	4.212 [0.378]**	4.517 [0.384]**	4.216 [0.744]**	4.132 [0.431]**	2.857 [0.711]**	4.577 [0.473]**	2.994 [0.896]**	4.434 [0.444]**
cut9:Constant	4.815 [0.377]**	5.128 [0.385]**	4.831 [0.746]**	4.738 [0.433]**	3.405 [0.712]**	5.2 [0.475]**	3.521 [0.904]**	5.053 [0.445]**
Observations	2518	2516	856	1662	539	1979	323	2195

Standard errors in brackets

* significant at 5%; ** significant at 1%

Note 1: Self-employed is excluded in the two Canadian surveys.

US benchmark survey does not provide information on self-employment status. Therefore the sample may include self-employed.

Note 2: The Benchmark survey does not provide information on personal income, household income is used

Note 3: Please refer to Appendix Table 1 for descriptive statistics by samples

Table 2-b: Expanded models on the well-being effects of income and workplace trust, Canadian GSS-17, Survey Ordered Probit

Sample	Canadian GSS-17, year 2003 working population						
	whole Sample	Union member(see note)	The rest (see note)	Immigrant	The rest	Identifiable VisibleMinority	The rest
Dependent Variable	Life satisfaction; 1-10 point scale						
Log of household income	0.099 [0.029]**	0.171 [0.061]**	0.079 [0.032]*	0.22 [0.064]**	0.051 [0.031]	0.179 [0.055]**	0.05 [0.033]
Trust in co-workers, standardized score	0.179 [0.017]**	0.194 [0.031]**	0.17 [0.021]**	0.222 [0.041]**	0.166 [0.019]**	0.198 [0.038]**	0.173 [0.019]**
Self-perceived health status, scaled 1-5	0.386 [0.016]**	0.407 [0.026]**	0.38 [0.021]**	0.461 [0.039]**	0.371 [0.018]**	0.406 [0.036]**	0.383 [0.018]**
male	-0.081 [0.026]**	-0.064 [0.044]	-0.083 [0.033]*	-0.089 [0.066]	-0.081 [0.030]**	-0.096 [0.056]	-0.074 [0.030]*
Age Group: 25~34	-0.219 [0.058]**	-0.302 [0.116]**	-0.194 [0.067]**	-0.579 [0.183]**	-0.19 [0.062]**	-0.26 [0.123]*	-0.213 [0.065]**
Age Group: 35~44	-0.381 [0.060]**	-0.503 [0.117]**	-0.327 [0.069]**	-0.685 [0.189]**	-0.364 [0.063]**	-0.369 [0.128]**	-0.389 [0.066]**
Age Group: 45~54	-0.413 [0.065]**	-0.478 [0.120]**	-0.395 [0.077]**	-0.718 [0.194]**	-0.406 [0.067]**	-0.423 [0.135]**	-0.428 [0.071]**
Age Group: 55~64	-0.31 [0.069]**	-0.39 [0.129]**	-0.283 [0.084]**	-0.437 [0.198]*	-0.363 [0.077]**	-0.217 [0.156]	-0.354 [0.076]**
Age Group: 65 up	-0.017 [0.185]	-0.402 [0.296]	0.141 [0.232]	-0.393 [0.279]	-0.024 [0.220]	-0.037 [0.412]	-0.061 [0.205]
Marital Status: Married	0.259 [0.038]**	0.211 [0.064]**	0.277 [0.047]**	0.076 [0.093]	0.323 [0.042]**	0.203 [0.074]**	0.303 [0.044]**
Marital Status: As Married	0.237 [0.044]**	0.166 [0.077]*	0.266 [0.055]**	0.152 [0.147]	0.262 [0.047]**	0.201 [0.106]	0.258 [0.051]**
Marital Status: Divorced	-0.28 [0.066]**	-0.223 [0.103]*	-0.319 [0.088]**	-0.365 [0.158]*	-0.275 [0.074]**	-0.393 [0.133]**	-0.254 [0.077]**
Marital Status: Separated	-0.105 [0.056]	-0.166 [0.088]	-0.071 [0.074]	0.088 [0.133]	-0.142 [0.062]*	0.074 [0.124]	-0.145 [0.063]*
Marital Status: Widowed	-0.227 [0.124]	-0.324 [0.174]	-0.157 [0.171]	-0.532 [0.396]	-0.17 [0.130]	-0.365 [0.297]	-0.187 [0.139]
Education: High school	-0.283 [0.061]**	-0.348 [0.128]**	-0.251 [0.068]**	0.057 [0.160]	-0.333 [0.065]**	-0.16 [0.128]	-0.316 [0.068]**
Education: Between	-0.262 [0.054]**	-0.252 [0.110]*	-0.251 [0.062]**	0.019 [0.146]	-0.305 [0.057]**	-0.165 [0.124]	-0.285 [0.059]**
Education: With University Degree	-0.378 [0.060]**	-0.313 [0.115]**	-0.417 [0.070]**	-0.158 [0.150]	-0.386 [0.064]**	-0.335 [0.131]*	-0.372 [0.066]**
Contacts with family member outside household	0.232 [0.045]**	0.187 [0.077]*	0.26 [0.055]**	0.408 [0.090]**	0.163 [0.052]**	0.313 [0.086]**	0.193 [0.052]**
Contacts with friends	0.221 [0.056]**	0.124 [0.088]	0.272 [0.069]**	0.124 [0.124]	0.238 [0.061]**	0.302 [0.121]*	0.191 [0.062]**
Contacts with neighbours	0.067 [0.047]	0.115 [0.077]	0.049 [0.059]	0.087 [0.115]	0.055 [0.052]	0.109 [0.100]	0.041 [0.054]
Number of membership or extent of association	0.021 [0.033]	0.012 [0.068]	0.03 [0.040]	0.014 [0.079]	0.01 [0.037]	0.025 [0.070]	0.02 [0.038]
Trust in general	-0.076 [0.031]*	-0.041 [0.052]	-0.093 [0.039]*	-0.157 [0.086]	-0.054 [0.033]	-0.045 [0.071]	-0.08 [0.034]*

trust in neighbours	0.243 [0.069]**	0.073 [0.123]	0.325 [0.083]**	0.212 [0.160]	0.256 [0.078]**	0.077 [0.139]	0.302 [0.082]**
Confidence in police	0.342 [0.065]**	0.338 [0.111]**	0.336 [0.076]**	0.401 [0.139]**	0.354 [0.073]**	0.101 [0.126]	0.435 [0.074]**
Importance of religion	0.189 [0.051]**	0.282 [0.088]**	0.136 [0.063]*	0.162 [0.143]	0.206 [0.056]**	0.063 [0.114]	0.233 [0.057]**
Frequency of attending religious serv	-0.066 [0.056]	-0.103 [0.088]	-0.041 [0.069]	-0.085 [0.144]	-0.05 [0.060]	-0.018 [0.126]	-0.08 [0.061]
cut1:Constant	-0.448 [0.330]	0.199 [0.686]	-0.6 [0.365]	1.073 [0.723]	-1.127 [0.359]**	0.425 [0.615]	-0.998 [0.375]**
cut2:Constant	-0.128 [0.317]	0.543 [0.660]	-0.294 [0.352]	1.18 [0.727]	-0.689 [0.336]*	0.75 [0.589]	-0.673 [0.361]
cut3:Constant	0.219 [0.309]	0.812 [0.647]	0.096 [0.347]	1.639 [0.718]*	-0.378 [0.329]	1.139 [0.591]	-0.343 [0.351]
cut4:Constant	0.461 [0.311]	1.078 [0.651]	0.327 [0.347]	1.901 [0.718]**	-0.14 [0.330]	1.37 [0.596]*	-0.091 [0.351]
cut5:Constant	1.105 [0.312]**	1.66 [0.648]*	1.002 [0.348]**	2.59 [0.720]**	0.498 [0.330]	1.998 [0.596]**	0.568 [0.352]
cut6:Constant	1.543 [0.312]**	2.131 [0.648]**	1.426 [0.348]**	2.977 [0.719]**	0.956 [0.331]**	2.403 [0.594]**	1.022 [0.353]**
cut7:Constant	2.357 [0.314]**	3.013 [0.649]**	2.208 [0.350]**	3.757 [0.724]**	1.787 [0.332]**	3.167 [0.599]**	1.859 [0.354]**
cut8:Constant	3.376 [0.315]**	4.055 [0.649]**	3.218 [0.352]**	4.829 [0.730]**	2.799 [0.333]**	4.119 [0.603]**	2.899 [0.355]**
cut9:Constant	4.144 [0.317]**	4.858 [0.652]**	3.971 [0.354]**	5.574 [0.734]**	3.574 [0.335]**	4.832 [0.607]**	3.685 [0.356]**
Observations	8794	3239	5555	1343	7451	1729	7065

Standard errors in brackets

* significant at 5%; ** significant at 1%

Note 1: In GSS, the union members are identified from memberships in union or professional associations. In order to filter out members of professional associations, both self-employed and those with high income (>\$90,000, or top 5% earners) are excluded from the definition of union members.

Note 2: The GSS does not provide very detailed information on ethnicity. The visible minority that is identifiable from the survey are limited to Asians and Aborigines

Note 2: Please refer to Appendix Table 1 for descriptive statistics by samples

Table 2-c: Expanded models on the well-being effects of income and workplace trust, US Benchmark Survey Ordered Probit

Sample	US Benchmark Survey, year 2000/01 working population				
	whole sample	Union Members	The rest	Non Hispanic White	The rest
Dependent Variable	Happiness; 1-4 point scale				
Log of household income	0.096** [0.022]	0.045 [0.064]	0.103** [0.022]	0.088** [0.023]	0.113* [0.043]
Trust in co-workers, standardized score	0.093** [0.011]	0.100** [0.032]	0.093** [0.012]	0.124** [0.013]	0.051* [0.020]
Participating in labor organizations	-0.027 [0.029]			0.022 [0.035]	-0.145** [0.051]
Self-perceived health status, scaled 1 to 5	0.354** [0.012]	0.352** [0.031]	0.355** [0.013]	0.367** [0.015]	0.324** [0.023]
male	-0.118** [0.025]	-0.147* [0.069]	-0.116** [0.027]	-0.111** [0.030]	-0.111* [0.042]
Age Group: 25~34	-0.029 [0.043]	-0.215 [0.140]	-0.01 [0.046]	0.007 [0.053]	-0.075 [0.054]
Age Group: 35~44	-0.059 [0.038]	-0.288 [0.152]	-0.035 [0.045]	-0.056 [0.047]	-0.039 [0.063]
Age Group: 45~54	-0.063 [0.050]	-0.283* [0.140]	-0.041 [0.057]	-0.062 [0.054]	-0.031 [0.110]
Age Group: 55~64	0.024 [0.045]	-0.295 [0.184]	0.067 [0.050]	0.05 [0.058]	-0.001 [0.082]
Age Group: 65 up	0.068 [0.081]	-0.222 [0.274]	0.095 [0.093]	0.076 [0.106]	0.212 [0.245]
Marital Status: Married	0.264** [0.037]	0.331** [0.108]	0.255** [0.034]	0.304** [0.042]	0.205** [0.058]
Marital Status: As Married	0.128* [0.049]	0.132 [0.158]	0.128** [0.047]	0.203** [0.051]	0.02 [0.088]
Marital Status: Divorced	-0.043 [0.039]	-0.018 [0.144]	-0.043 [0.041]	-0.037 [0.046]	-0.014 [0.088]
Marital Status: Separated	-0.226** [0.066]	-0.279 [0.210]	-0.224** [0.071]	-0.296** [0.101]	-0.154 [0.081]
Marital Status: Widowed	-0.057 [0.072]	-0.105 [0.191]	-0.046 [0.077]	-0.123 [0.081]	0.126 [0.136]
Education: High school	0.115* [0.048]	0.001 [0.156]	0.132* [0.051]	0.017 [0.093]	0.184** [0.058]
Education: Between	0.118* [0.052]	0.093 [0.174]	0.123* [0.057]	0.028 [0.101]	0.168* [0.069]
Education: With University Degree	0.036 [0.054]	-0.041 [0.183]	0.045 [0.055]	-0.07 [0.095]	0.126 [0.082]
Contacts with family member outside household	0.161** [0.032]	0.214* [0.084]	0.152** [0.035]	0.141** [0.038]	0.203** [0.064]
Contacts with friends	0.111** [0.010]	0.120** [0.031]	0.109** [0.010]	0.139** [0.012]	0.058** [0.021]
Contacts with neighbours	0.152** [0.048]	0.321** [0.118]	0.131* [0.050]	0.156* [0.059]	0.156** [0.058]
Number of membership or extent of activity	0.301** [0.064]	0.148 [0.183]	0.329** [0.061]	0.276** [0.076]	0.301** [0.092]

Trust in general	0.175** [0.022]	0.203** [0.055]	0.169** [0.023]	0.173** [0.030]	0.187** [0.048]
trust in neighbours	0.250** [0.048]	0.339* [0.145]	0.238** [0.049]	0.252** [0.050]	0.295** [0.086]
trust in police	0.348** [0.040]	0.370** [0.135]	0.344** [0.043]	0.445** [0.056]	0.240** [0.064]
Importance of religion	0.200** [0.053]	0.029 [0.186]	0.231** [0.051]	0.217** [0.056]	0.166 [0.102]
Frequency of attending religious services	0.167** [0.034]	0.112 [0.111]	0.174** [0.041]	0.109** [0.037]	0.305** [0.061]
cut1:Constant	0.529* [0.221]	-0.298 [0.691]	0.632** [0.229]	0.505 [0.258]	0.619 [0.463]
cut2:Constant	1.583** [0.230]	0.857 [0.707]	1.673** [0.235]	1.566** [0.258]	1.678** [0.466]
cut3:Constant	3.933** [0.226]	3.206** [0.707]	4.027** [0.230]	4.005** [0.259]	3.882** [0.473]
Observations	13293	1718	11575	9962	3331

Standard errors in brackets

* significant at 5%; ** significant at 1%

Note 1: Self-employed is excluded in the two Canadian surveys.

US benchmark survey does not provide information on self-employment status. Therefore the sample may include self-employed.

Note 2: The Benchmark survey does not provide information on personal income, household income is used

Note 3: Please refer to Appendix Table 1 for descriptive statistics by samples

Note 3: Please refer to Appendix Table 1 for descriptive statistics by samples

Table 3-a: Formation of workplace trust, ESC2 sample
Survey Ordered Probit

Sample	Canadian ESC-2; Working population						
	whole Sample	Union Members	The rest	Immigr- -ant	The rest	Visible Minority	The rest
Dependent Variable	Workplace trust, 1-10 point scale						
Log of personal income	-0.183 [0.043]**	-0.272 [0.094]**	-0.134 [0.052]*	-0.116 [0.083]	-0.235 [0.057]**	-0.198 [0.088]*	-0.204 [0.050]**
Job: Requires skill	0.203 [0.110]	0.33 [0.204]	0.139 [0.132]	0.05 [0.212]	0.239 [0.129]	-0.03 [0.301]	0.227 [0.114]*
Job: Has variety of tasks	0.288 [0.101]**	0.018 [0.197]	0.356 [0.119]**	0.614 [0.190]**	0.27 [0.127]*	0.691 [0.260]**	0.224 [0.112]*
Job: Have enough time	0.327 [0.093]**	0.122 [0.144]	0.485 [0.115]**	0.303 [0.168]	0.333 [0.109]**	0.076 [0.237]	0.346 [0.105]**
Job: Free of conflicting demands	0.59 [0.081]**	0.529 [0.150]**	0.649 [0.092]**	0.319 [0.176]	0.629 [0.086]**	0.449 [0.244]	0.598 [0.089]**
Job: Makes own decision	0.526 [0.092]**	0.611 [0.147]**	0.482 [0.120]**	0.215 [0.188]	0.68 [0.108]**	0.456 [0.269]	0.577 [0.099]**
Commonality with co-workers							
:Social class or income brack	0.025 [0.028]	0.034 [0.057]	0.033 [0.032]	0.09 [0.058]	0.008 [0.032]	0.015 [0.076]	0.028 [0.033]
:Language group	0.006 [0.024]	0.063 [0.044]	-0.007 [0.030]	0.025 [0.046]	0.025 [0.032]	-0.068 [0.061]	0.013 [0.027]
:Religion	0.047 [0.025]	0.082 [0.045]	0.036 [0.029]	-0.018 [0.045]	0.068 [0.028]*	-0.047 [0.071]	0.068 [0.026]*
:Ethnicity	0.019 [0.026]	0.006 [0.042]	0.015 [0.032]	-0.054 [0.055]	0.056 [0.030]	0.11 [0.080]	0.025 [0.027]
:Age	-0.022 [0.027]	-0.066 [0.045]	0 [0.033]	-0.072 [0.057]	-0.019 [0.031]	-0.057 [0.092]	-0.013 [0.030]
:Level of education	0.028 [0.027]	0 [0.051]	0.031 [0.032]	0.05 [0.060]	0.034 [0.030]	-0.046 [0.087]	0.04 [0.028]
Dummy, Union member	-0.54 [0.055]**			-0.62 [0.125]**	-0.512 [0.059]**	-0.426 [0.173]*	-0.551 [0.056]**
Sense of job security, 1-4 point	0.172 [0.025]**	0.221 [0.047]**	0.14 [0.031]**	0.142 [0.056]*	0.2 [0.030]**	0.187 [0.081]*	0.171 [0.028]**
Self-perceived health status, sca	0.112 [0.030]**	0.057 [0.057]	0.145 [0.036]**	0.03 [0.067]	0.127 [0.033]**	0.143 [0.083]	0.125 [0.032]**
male	-0.109 [0.047]*	-0.117 [0.088]	-0.098 [0.059]	-0.162 [0.115]	-0.095 [0.054]	0.05 [0.134]	-0.121 [0.052]*
Age Group: 25~34	0.053 [0.102]	-0.223 [0.226]	0.128 [0.109]	0.071 [0.217]	0.096 [0.117]	0.148 [0.234]	0.061 [0.119]
Age Group: 35~44	0.029 [0.103]	-0.128 [0.235]	0.055 [0.115]	-0.058 [0.232]	0.123 [0.117]	0.102 [0.266]	0.062 [0.117]
Age Group: 45~54	0.1 [0.106]	-0.137 [0.227]	0.206 [0.122]	-0.002 [0.237]	0.199 [0.119]	-0.022 [0.268]	0.153 [0.121]
Age Group: 55~64	0.19 [0.124]	0.058 [0.255]	0.23 [0.142]	-0.045 [0.271]	0.294 [0.152]	-0.314 [0.407]	0.285 [0.138]*
Age Group: 65 up	0.268 [0.355]	0.086 [0.710]	0.112 [0.405]	0.524 [0.583]	0.294 [0.420]	-1.876 [0.651]**	0.493 [0.364]
Marital Status: Married	-0.025 [0.068]	0.033 [0.119]	-0.058 [0.080]	-0.226 [0.150]	0.012 [0.070]	0.035 [0.238]	-0.026 [0.069]
Marital Status: As Married	-0.02	0.024	-0.042	-0.358	0.026	-0.465	0.012

Marital Status: Divorced	[0.099]	[0.168]	[0.121]	[0.197]	[0.108]	[0.393]	[0.105]
	-0.156	-0.01	-0.289	-0.078	-0.187	-0.007	-0.172
Marital Status: Separated	[0.107]	[0.165]	[0.144]*	[0.235]	[0.128]	[0.338]	[0.111]
	0.031	-0.04	0.048	-0.135	0.038	-0.064	0.062
Marital Status: Widowed	[0.097]	[0.182]	[0.128]	[0.236]	[0.110]	[0.384]	[0.101]
	0.013	-0.29	0.272	1.354	-0.213	0.417	0.009
Education: High school	[0.208]	[0.392]	[0.260]	[0.491]**	[0.204]	[1.048]	[0.211]
	-0.229	-0.371	-0.164	-0.149	-0.243	-0.193	-0.196
Education: Between	[0.114]*	[0.166]*	[0.138]	[0.250]	[0.122]*	[0.357]	[0.116]
	-0.324	-0.386	-0.268	-0.348	-0.324	-0.276	-0.309
Education: With University Degree	[0.106]**	[0.153]*	[0.131]*	[0.236]	[0.116]**	[0.334]	[0.105]**
	-0.214	-0.174	-0.236	-0.496	-0.139	-0.598	-0.129
Contacts with family member outside	[0.111]	[0.160]	[0.135]	[0.239]*	[0.125]	[0.372]	[0.112]
	0.158	0.003	0.21	0.214	0.177	-0.029	0.173
Contacts with friends	[0.072]*	[0.132]	[0.093]*	[0.147]	[0.086]*	[0.209]	[0.082]*
	-0.147	-0.297	-0.073	-0.113	-0.119	-0.137	-0.152
Contacts with neighbours	[0.105]	[0.167]	[0.121]	[0.188]	[0.123]	[0.274]	[0.114]
	0.044	0.139	-0.005	0.07	0.053	-0.246	0.108
Number of membership or extension	[0.076]	[0.136]	[0.099]	[0.174]	[0.087]	[0.246]	[0.082]
	-0.004	-0.003	-0.011	0.041	-0.021	0.059	-0.017
Trust in general	[0.015]	[0.027]	[0.020]	[0.034]	[0.018]	[0.043]	[0.017]
	0.159	0.148	0.163	0.113	0.191	0.037	0.176
trust in neighbours	[0.054]**	[0.112]	[0.058]**	[0.118]	[0.061]**	[0.156]	[0.059]**
	0.079	0.127	0.056	0.187	0.004	0.342	0.063
trust in police	[0.084]	[0.130]	[0.100]	[0.158]	[0.102]	[0.207]	[0.091]
	0.123	0.248	0.094	0.359	0.112	0.675	0.052
Importance of religion	[0.094]	[0.169]	[0.116]	[0.201]	[0.105]	[0.254]**	[0.102]
	-0.161	-0.214	-0.178	-0.061	-0.202	0.081	-0.181
Frequency of attending religious	[0.095]	[0.180]	[0.122]	[0.194]	[0.116]	[0.268]	[0.103]
	0.316	0.319	0.345	0.248	0.314	0.104	0.36
Number of employers in past 12 months (equals 3 if greater)	[0.097]**	[0.188]	[0.115]**	[0.193]	[0.115]**	[0.258]	[0.105]**
	0.1	0.291	0.031	-0.223	0.21	-0.163	0.148
Year since immigration	[0.051]	[0.112]**	[0.056]	[0.092]*	[0.065]**	[0.116]	[0.061]*
				-0.007			
				[0.004]			
cut1:Constant	-1.347	-2.046	-0.643	-2.087	-1.148	-2.482	-1.202
	[0.457]**	[1.124]	[0.521]	[0.907]*	[0.612]	[0.989]*	[0.544]*
cut2:Constant	-1.04	-1.651	-0.412	-1.897	-0.808	-1.981	-0.907
	[0.453]*	[1.118]	[0.516]	[0.912]*	[0.605]	[0.970]*	[0.539]
cut3:Constant	-0.678	-1.279	-0.049	-1.602	-0.423	-1.676	-0.53
	[0.449]	[1.113]	[0.508]	[0.909]	[0.602]	[0.963]	[0.535]
cut4:Constant	-0.353	-0.935	0.268	-1.254	-0.093	-1.274	-0.206
	[0.450]	[1.114]	[0.512]	[0.907]	[0.604]	[0.944]	[0.535]
cut5:Constant	0.07	-0.496	0.69	-0.717	0.316	-0.815	0.221
	[0.453]	[1.117]	[0.518]	[0.918]	[0.607]	[0.949]	[0.536]
cut6:Constant	0.469	-0.114	1.111	-0.206	0.699	-0.249	0.603
	[0.452]	[1.112]	[0.517]*	[0.908]	[0.608]	[0.933]	[0.537]
cut7:Constant	0.991	0.458	1.615	0.299	1.241	0.278	1.132
	[0.452]*	[1.113]	[0.517]**	[0.911]	[0.610]*	[0.935]	[0.536]*
cut8:Constant	1.641	1.086	2.282	1.011	1.891	0.972	1.785
	[0.453]**	[1.112]	[0.519]**	[0.910]	[0.609]**	[0.934]	[0.536]**
cut9:Constant	2.204	1.731	2.829	1.573	2.469	1.469	2.367

Observations	[0.451]**	[1.097]	[0.518]**	[0.903]	[0.608]**	[0.915]	[0.534]**
	2150	735	1415	458	1692	280	1870

Standard errors in brackets

* significant at 5%; ** significant at 1%

Note 1: ESC2 sample has been filtered out the self-employed

US benchmark survey does not provide information on self-employment status

Therefore the sample include self-employed.

Note 2: The Benchmark survey does not provide information on personal income, therefore household income is used

Note 3: Please refer to Appendix Table 1 for descriptive statistics by samples

**Table 3-b: Formation of workplace trust, Canadian GSS-17
Survey Ordered Probit**

Sample	Canadian GSS-17 working population						
	whole Sample	Union member(see note)	The rest	Immigrant	The rest	Identifiable VisibleMinority	The rest
Dependent Variable	Trust in colleagues, 1-5 point scale						
Log of household income	-0.159 [0.029]**	-0.087 [0.056]	-0.178 [0.034]**	-0.075 [0.060]	-0.201 [0.033]**	-0.1 [0.055]	-0.202 [0.034]**
Union Status, to be added	0.008 [0.029]			0.08 [0.070]	-0.022 [0.032]	0.054 [0.065]	-0.01 [0.033]
Self-perceived health status, scale	0.092 [0.016]**	0.047 [0.027]	0.116 [0.020]**	0.117 [0.037]**	0.081 [0.018]**	0.139 [0.036]**	0.077 [0.018]**
male	-0.087 [0.029]**	-0.051 [0.045]	-0.1 [0.038]**	-0.07 [0.067]	-0.083 [0.031]**	-0.105 [0.063]	-0.076 [0.032]*
Age Group: 25~34	-0.124 [0.060]*	-0.01 [0.115]	-0.141 [0.072]*	-0.305 [0.208]	-0.113 [0.064]	0.179 [0.139]	-0.219 [0.067]**
Age Group: 35~44	-0.114 [0.059]	-0.015 [0.115]	-0.115 [0.071]	-0.204 [0.212]	-0.112 [0.062]	0.175 [0.141]	-0.193 [0.064]**
Age Group: 45~54	-0.025 [0.063]	0.142 [0.119]	-0.075 [0.075]	-0.267 [0.209]	0.012 [0.066]	0.235 [0.144]	-0.11 [0.069]
Age Group: 55~64	0.151 [0.073]*	0.172 [0.134]	0.184 [0.089]*	-0.094 [0.228]	0.206 [0.078]**	0.363 [0.170]*	0.077 [0.078]
Age Group: 65 up	0.503 [0.213]*	0.291 [0.314]	0.635 [0.273]*	0.191 [0.509]	0.522 [0.236]*	-0.161 [0.301]	0.576 [0.241]*
Marital Status: Married	0.058 [0.039]	0.136 [0.065]*	0.016 [0.048]	-0.069 [0.104]	0.123 [0.042]**	-0.128 [0.083]	0.133 [0.044]**
Marital Status: As Married	0.048 [0.047]	0.056 [0.078]	0.038 [0.059]	-0.087 [0.146]	0.06 [0.050]	0.113 [0.112]	0.039 [0.052]
Marital Status: Divorced	0.109 [0.067]	0.204 [0.110]	0.065 [0.085]	0.099 [0.163]	0.118 [0.074]	0.137 [0.148]	0.104 [0.076]
Marital Status: Separated	-0.04 [0.068]	-0.002 [0.104]	-0.059 [0.090]	-0.165 [0.213]	-0.017 [0.067]	-0.286 [0.177]	0.032 [0.071]
Marital Status: Widowed	0.103 [0.129]	-0.134 [0.204]	0.264 [0.167]	0.83 [0.438]	0 [0.132]	0.582 [0.303]	0.025 [0.139]
Education: High school	0.046 [0.061]	0.001 [0.119]	0.062 [0.068]	-0.049 [0.171]	0.084 [0.064]	0.101 [0.151]	0.033 [0.064]
Education: Between	0.011 [0.052]	-0.041 [0.100]	0.032 [0.060]	0.015 [0.135]	0.044 [0.056]	-0.063 [0.127]	0.03 [0.056]
Education: With University Degree	0.102 [0.057]	0.145 [0.104]	0.048 [0.068]	0.103 [0.142]	0.18 [0.062]**	-0.023 [0.134]	0.167 [0.062]**
Contacts with family member outside	0.048 [0.048]	-0.037 [0.081]	0.086 [0.060]	0.043 [0.112]	-0.002 [0.054]	-0.04 [0.102]	0.066 [0.054]
Contacts with friends	0.233 [0.057]**	0.253 [0.093]**	0.22 [0.071]**	0.177 [0.122]	0.233 [0.063]**	0.227 [0.119]	0.219 [0.066]**
Contacts with neighbours	-0.246 [0.053]**	-0.362 [0.083]**	-0.198 [0.066]**	-0.1 [0.141]	-0.279 [0.056]**	-0.119 [0.117]	-0.292 [0.056]**
Number of membership or extent of	0.007 [0.038]	-0.087 [0.067]	0.052 [0.044]	0.075 [0.095]	-0.033 [0.040]	-0.077 [0.080]	0.019 [0.043]
Trust in general	0.449 [0.032]**	0.472 [0.053]**	0.437 [0.039]**	0.357 [0.080]**	0.477 [0.035]**	0.404 [0.069]**	0.46 [0.036]**

trust in neighbours	2.086 [0.079]**	2.19 [0.127]**	2.034 [0.098]**	2.392 [0.215]**	2.004 [0.082]**	1.971 [0.174]**	2.121 [0.087]**
Confidence in police	0.384 [0.066]**	0.408 [0.114]**	0.377 [0.082]**	0.205 [0.166]	0.429 [0.071]**	0.458 [0.142]**	0.365 [0.075]**
Importance of religion	-0.083 [0.050]	-0.262 [0.084]**	0 [0.064]	-0.169 [0.130]	-0.074 [0.055]	-0.258 [0.119]*	-0.042 [0.055]
Frequency of attending religious ser	0.093 [0.055]	0.306 [0.089]**	-0.016 [0.073]	0.255 [0.145]	0.096 [0.060]	0.347 [0.132]**	0.027 [0.060]
Socializing with co-workers	0.069 [0.012]**	0.087 [0.020]**	0.067 [0.015]**	0.014 [0.027]	0.084 [0.013]**	0.058 [0.026]*	0.076 [0.013]**
cut1:Constant	-1.77 [0.310]**	-1.149 [0.600]	-1.884 [0.361]**	-0.94 [0.623]	-2.258 [0.357]**	-0.845 [0.590]	-2.352 [0.366]**
cut2:Constant	-0.949 [0.306]**	-0.296 [0.596]	-1.07 [0.359]**	-0.056 [0.623]	-1.451 [0.354]**	-0.023 [0.592]	-1.525 [0.364]**
cut3:Constant	0.2 [0.306]	0.92 [0.599]	0.056 [0.358]	1.106 [0.619]	-0.293 [0.354]	1.095 [0.587]	-0.357 [0.364]
cut4:Constant	1.503 [0.307]**	2.328 [0.600]**	1.313 [0.358]**	2.419 [0.622]**	1.02 [0.355]**	2.374 [0.586]**	0.962 [0.365]**
Observations	8773	3236	5537	1339	7434	1725	7048

Standard errors in brackets

* significant at 5%; ** significant at 1%

Note 1: In GSS, the union members are identified from memberships in union or professional associations. In order to filter out members of professional associations, both self-employed and those with high income (>\$90,000, or top 5% earners) are excluded from the definition of union members.

Note 2: The GSS does not provide very detailed information on ethnicity. The visible minority that is identifiable from the survey are limited to Asians and Aboriginals

Note 3: Please refer to Appendix Table 1 for descriptive statistics by samples

Table 3-c: Formation of workplace trust, US Benchmark Community Survey
Survey Ordered Probit

Sample	US Benchmark ; working population				
	whole sample	Union Members	The rest	Non Hispanic White	The rest
Dependent Variable	Trust in colleagues, 1-4 point scale				
Log of household income	-0.035 [0.018]	-0.027 [0.058]	-0.037 [0.019]	-0.091** [0.022]	0.016 [0.038]
Frequency; socialized with co-workers outside	0.006** [0.001]	0.005* [0.002]	0.006** [0.001]	0.006** [0.001]	0.006** [0.001]
Participating in labor organizations	-0.161** [0.036]			-0.216** [0.039]	-0.038 [0.073]
Self-perceived health status, scaled 1 to 5	0.074** [0.013]	0.062 [0.037]	0.075** [0.013]	0.098** [0.017]	0.021 [0.019]
male	-0.01 [0.020]	-0.169* [0.068]	0.017 [0.023]	-0.02 [0.024]	0.011 [0.045]
Age Group: 25~34	-0.059 [0.041]	-0.116 [0.107]	-0.051 [0.041]	-0.061 [0.053]	-0.048 [0.069]
Age Group: 35~44	-0.041 [0.043]	-0.086 [0.104]	-0.034 [0.043]	-0.046 [0.062]	-0.051 [0.071]
Age Group: 45~54	0.057 [0.052]	0.044 [0.120]	0.058 [0.054]	0.044 [0.064]	0.007 [0.078]
Age Group: 55~64	0.134* [0.065]	0.133 [0.148]	0.131 [0.067]	0.069 [0.081]	0.244* [0.093]
Age Group: 65 up	0.323** [0.098]	0.434 [0.235]	0.314** [0.099]	0.253* [0.116]	0.397 [0.199]
Marital Status: Married	0.07 [0.043]	0.046 [0.079]	0.075 [0.047]	0.076 [0.054]	0.011 [0.057]
Marital Status: As Married	0.107* [0.046]	0.061 [0.131]	0.115* [0.043]	0.079 [0.059]	0.158* [0.062]
Marital Status: Divorced	0.057 [0.047]	0.004 [0.131]	0.066 [0.045]	0.028 [0.058]	0.075 [0.089]
Marital Status: Separated	-0.073 [0.046]	-0.128 [0.169]	-0.064 [0.051]	-0.029 [0.090]	-0.082 [0.089]
Marital Status: Widowed	0.048 [0.102]	0.273 [0.227]	0.014 [0.107]	0.04 [0.128]	0.032 [0.136]
Education: High school	0.099 [0.052]	0.07 [0.161]	0.110* [0.051]	-0.04 [0.088]	0.083 [0.077]
Education: Between	0.201** [0.058]	0.268 [0.153]	0.196** [0.060]	0.038 [0.089]	0.240** [0.079]
Education: With University Degree	0.348** [0.062]	0.395* [0.183]	0.339** [0.054]	0.198* [0.085]	0.310** [0.088]
Contacts with family member outside househo	0.012 [0.029]	0.019 [0.066]	0.014 [0.032]	-0.012 [0.036]	-0.019 [0.067]
Contacts with friends	0.117** [0.011]	0.068* [0.027]	0.126** [0.013]	0.092** [0.013]	0.130** [0.031]
Contacts with neighbours	0.012 [0.038]	0.068 [0.101]	0.006 [0.042]	-0.089 [0.056]	0.078 [0.053]
Number of membership or extent of activity	0.093 [0.069]	0.275* [0.134]	0.064 [0.077]	0.257** [0.074]	-0.058 [0.116]
Trust in general	0.541** [0.021]	0.535** [0.058]	0.542** [0.025]	0.546** [0.029]	0.469** [0.054]

trust in neighbours	0.892** [0.047]	0.895** [0.161]	0.893** [0.053]	0.758** [0.057]	0.900** [0.089]
trust in police	0.863** [0.051]	0.900** [0.115]	0.860** [0.058]	0.860** [0.056]	0.711** [0.072]
Importance of religion	-0.038 [0.065]	0.162 [0.152]	-0.072 [0.067]	0.025 [0.069]	-0.086 [0.128]
Frequency of attending religious services	-0.022 [0.030]	-0.079 [0.096]	-0.017 [0.030]	0.028 [0.033]	-0.003 [0.068]
cut1:Constant	-0.115 [0.210]	0.143 [0.615]	-0.126 [0.225]	-0.941** [0.239]	0.209 [0.385]
cut2:Constant	0.801** [0.212]	0.985 [0.604]	0.806** [0.224]	-0.152 [0.234]	1.270** [0.391]
cut3:Constant	2.044** [0.211]	2.237** [0.601]	2.049** [0.223]	1.109** [0.234]	2.524** [0.388]
Observations	13242	1708	11534	9928	3314

Standard errors in brackets

* significant at 5%; ** significant at 1%

Note 1: ESC2 sample has been filtered out the self-employed

US benchmark survey does not provide information on self-employment status

Therefore the sample include self-employed.

Note 2: The Benchmark survey does not provide information on personal income, therefore household income is used

Note 3: Please refer to Appendix Table 1 for descriptive statistics by samples

Table 4: Compensating differentials, derived from estimates of table 2

Panel-a	Canadian ESC2, year 2003							
	Working population							
	Whole sample	Whole sample*	Union Members	The rest	Immigrant	The rest	Visible Minority	The rest
coefficient of the Log of personal income	0.19	0.154	0.22	0.18	0.12	0.22	0.13	0.21
coefficient of the standardized score of trust in management	0.19	0.165	0.14	0.24	0.27	0.17	0.37	0.17
Ratio of coefficients	0.97	1.07	0.65	1.36	2.29	0.79	2.93	0.82
Approximated percentage income change associated with one third of a standard deviation, such a movment covers roughly 10% of the sample**								
Standard error***	7%	9%	8%	11%	Statistically insignificant	26% 6%	Statistically insignificant	27% 6%
Panel-b	Canadian GSS-17, year 2003							
	Working population							
	whole Sample	Union	The rest	Immigrant	The rest	Identifia Minority	The rest	
coefficient of the Log of household income	0.099	0.171	0.079	0.22	0.051	0.179	0.05	
coefficient of the standardized score of trust in management	0.179	0.194	0.17	0.222	0.166	0.198	0.173	
Ratio of coefficients	1.81	1.13	2.15	1.01	3.25	1.11	3.46	
Percentage income change associated with one third of a standard deviation, such a movment covers roughly 10% of the sample**								
Standard error***	60% 18%	38% 14%	72% 30%	34% 12%	Statistically insignificant	37% 13%	Statistically insignificant	
Panel-c	US Benchmark Survey, year 2000/01							
	Working population							
	whole sample	Union Members	The rest	White Non-Hispanic	The rest			
coefficient of the Log of household income	0.10	0.05	0.10	0.09	0.11			
coefficient of the standardized score of trust in management	0.09	0.10	0.09	0.12	0.05			
Ratio of coefficients	0.97	2.22	0.90	1.41	0.45			
Percentage income change associated with one third of a standard deviation, such a movment covers roughly 10% of the sample**								
Standard error***	32% 9%	Statistically insignificant	30% 8%	47% 13%	Statistically insignificant			

* this particular regression includes other job characteristics as the right hand side variables

** this is simply one third of the ratio of coefficients.

*** Standard error is calculated from the Delta method from the variance co-variance matrix of the estimated coefficients

**Appendix Table 1: Descriptive Statistics:
ESC:**

Sample: Canadian ESC	Working population exluding self employed			Working population Union Members			Working population Non Union Members		
Variable	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev.
Life satisfaction, 1-10 point scale	2523	7.95	1.63	858	8.05	1.58	1665	7.90	1.65
Job satisfaction, 1-10 point scale	2523	7.26	1.88	858	6.95	1.94	1665	7.42	1.83
Log of personal income	2523	10.45	0.70	858	10.59	0.55	1665	10.38	0.76
age	2484	40.49	10.57	847	42.70	9.90	1637	39.35	10.73
male	2523	0.48	0.50	858	0.44	0.50	1665	0.51	0.50
married	2523	0.52	0.50	858	0.55	0.50	1665	0.51	0.50
Education: With University Degree	2523	0.34	0.47	858	0.37	0.48	1665	0.32	0.47
Trust in management, 1-10 point	2523	6.73	2.28	858	5.95	2.30	1665	7.14	2.16
Trust in general, 0-1 scale	2523	0.65	0.47	858	0.67	0.46	1665	0.64	0.48
Confidence that neighbor will return th	2523	0.65	0.34	858	0.66	0.33	1665	0.65	0.35
Confidence that police will return th	2523	0.83	0.28	858	0.83	0.28	1665	0.83	0.28
Job: Requires skill, 0-1 scale	2522	0.78	0.27	857	0.81	0.25	1665	0.76	0.27
Job: Has variety of tasks, 0-1 scale	2523	0.86	0.23	858	0.87	0.21	1665	0.85	0.24
Job: Have enough time, 0-1 scale	2523	0.65	0.32	858	0.59	0.34	1665	0.69	0.31
Job: Free of conflicting demands, 0	2522	0.51	0.33	858	0.47	0.33	1664	0.53	0.33
Job: Makes own decision, 0-1 scale	2523	0.77	0.29	858	0.74	0.29	1665	0.78	0.28
Sense of job security, 1-4 scale	2487	3.25	0.86	849	3.30	0.86	1638	3.22	0.87
Dummy: Union member	2523	0.34	0.47	858					
Dummy: immigrant	2523	0.21	0.41	858	0.18	0.38	1665	0.23	0.42
Dummy: Visible Minority	2523	0.13	0.33	858	0.09	0.29	1665	0.15	0.35

Sample: Canadian ESC	Working population Immigrant			Working population Canadian Born			Working population Visible Minority			Working population The rest		
Variable	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev.
Life satisfaction, 1-10 point scale	540	7.74	1.81	1983	8.01	1.57	324	7.56	1.87	2199	8.01	1.58
Job satisfaction, 1-10 point scale	540	7.24	1.87	1983	7.27	1.88	324	7.30	1.77	2199	7.26	1.90
Log of personal income/household	540	10.40	0.80	1983	10.46	0.68	324	10.31	0.83	2199	10.47	0.68
age	521	41.60	10.87	1963	40.20	10.48	312	38.92	10.82	2172	40.72	10.52
male	540	0.55	0.50	1983	0.46	0.50	324	0.53	0.50	2199	0.48	0.50
married	540	0.59	0.49	1983	0.50	0.50	324	0.60	0.49	2199	0.51	0.50
Education: With University Degree	540	0.44	0.50	1983	0.31	0.46	324	0.46	0.50	2199	0.32	0.47

Trust in management, 1-10 point	540	6.85	2.16	1983	6.70	2.31	324	6.86	2.09	2199	6.72	2.31
Trust in general, 0-1 scale	540	0.58	0.49	1983	0.67	0.47	324	0.54	0.49	2199	0.67	0.47
Confidence that neighbor will return	540	0.60	0.35	1983	0.67	0.34	324	0.57	0.36	2199	0.66	0.34
Confidence that police will return th	540	0.79	0.31	1983	0.84	0.27	324	0.79	0.31	2199	0.84	0.27
Job: Requires skill, 0-1 scale	540	0.76	0.29	1982	0.78	0.26	324	0.73	0.29	2198	0.79	0.26
Job: Has variety of tasks, 0-1 scale	540	0.81	0.27	1983	0.87	0.22	324	0.79	0.28	2199	0.87	0.22
Job: Have enough time, 0-1 scale	540	0.66	0.33	1983	0.65	0.32	324	0.67	0.32	2199	0.65	0.32
Job: Free of conflicting demands, 0	540	0.53	0.33	1982	0.51	0.33	324	0.53	0.31	2198	0.51	0.33
Job: Makes own decision, 0-1 scale	540	0.73	0.31	1983	0.78	0.28	324	0.71	0.31	2199	0.77	0.28
Sense of job security, 1-4 scale	529	2.99	1.00	1958	3.31	0.81	319	2.99	0.99	2168	3.28	0.84
Dummy: Union member	540	0.28	0.45	1983	0.36	0.48	324	0.24	0.43	2199	0.35	0.48
Dummy: immigrant							324	0.70	0.46	2199	0.14	0.35
Dummy: Visible Minority	540	0.42	0.49	1983	0.05	0.22						

**Appendix Table 1-continued: Descriptive Statistics:
Descriptive Statistics, GSS**

Sample: Canadian GSS	working population					
	whole sample		Union Members*		The rest	
Variable	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Life satisfaction	7.95	1.42	7.96	1.37	7.95	1.45
trust in co-workers	3.82	0.97	3.89	0.91	3.79	0.99
immigrant status	0.18	0.38	0.15	0.36	0.20	0.40
age	39.51	11.43	40.80	10.73	38.92	11.70
% married	0.52	0.50	0.54	0.50	0.52	0.50
% male	0.55	0.50	0.54	0.50	0.55	0.50
log of household income	11.05	0.55	11.15	0.47	10.99	0.58
log of personal income	10.50	0.66	10.64	0.49	10.41	0.73
Mastery Scale	0.25	0.14	0.26	0.14	0.25	0.14
Health Status	3.91	0.91	3.96	0.89	3.89	0.92
University degress	0.26	0.44	0.36	0.48	0.21	0.41
Frequency of Visiting Relatives	0.50	0.30	0.51	0.29	0.49	0.31
Friendship	0.67	0.26	0.67	0.25	0.67	0.26
Contact with neighbours	0.52	0.32	0.53	0.31	0.52	0.32
membership	0.42	0.41	0.58	0.34	0.35	0.42
general trust	0.57	0.49	0.63	0.48	0.54	0.50
trust in neighbours	0.67	0.26	0.69	0.24	0.66	0.26
confidence in police	0.73	0.24	0.74	0.22	0.73	0.24
importance of religion	0.45	0.39	0.46	0.39	0.45	0.40
Frequency of attending religious services	0.31	0.36	0.32	0.37	0.30	0.36
% union	0.32	0.47	1.00	0.00	0.00	0.00

Note: Union member is defined as those who answered positively to the question "In the past 12 months, were you a member or participant in a union or professional association?", excluding self-employed and those with personal income above ca\$90,000, (top 5% of the paid workers who are union member or professional organization)

Sample: Canadian GSS	working population			
	Immigrants		Canadian Born	
Variable Label	Mean	Std. Dev.	Mean	Std. Dev.
Life satisfaction	7.77	1.53	7.99	1.40
trust in co-workers	3.67	1.02	3.85	0.96
immigrant status	1.00	0.00	0.00	0.00
age	41.98	11.04	38.97	11.45
% married	0.67	0.47	0.49	0.50
% male	0.56	0.50	0.54	0.50
log of household income	11.02	0.59	11.05	0.54
log of personal income	10.51	0.70	10.49	0.66
Mastery Scale	0.22	0.15	0.26	0.14
Health Status	3.83	0.94	3.93	0.90
University degress	0.40	0.49	0.23	0.42
Frequency of Visiting Relatives	0.41	0.33	0.52	0.29
Friendship	0.63	0.27	0.68	0.25
Contact with neighbours	0.49	0.29	0.53	0.32
membership	0.39	0.41	0.43	0.41
general trust	0.57	0.49	0.56	0.49
trust in neighbours	0.64	0.26	0.67	0.25
confidence in police	0.73	0.24	0.73	0.23

importance of religion	0.51	0.43	0.44	0.38
Frequency of attending religious services	0.39	0.41	0.29	0.35
% union	0.26	0.44	0.33	0.47

Sample: Canadian GSS	working population			
	Identifiable visible min		The rest	
Variable Label	Mean	Std. Dev.	Mean	Std. Dev.
Life satisfaction	7.85	1.52	7.98	1.39
trust in co-workers	3.68	1.02	3.86	0.95
immigrant status	0.50	0.50	0.09	0.28
age	38.46	11.15	39.82	11.50
% married	0.55	0.50	0.52	0.50
% male	0.56	0.50	0.54	0.50
log of household income	10.96	0.60	11.07	0.53
log of personal income	10.41	0.68	10.52	0.66
Mastery Scale	0.23	0.15	0.26	0.14
Health Status	3.86	0.94	3.93	0.90
University degress	0.32	0.47	0.24	0.43
Frequency of Visiting Relatives	0.46	0.33	0.51	0.29
Friendship	0.65	0.27	0.67	0.25
Contact with neighbours	0.49	0.31	0.53	0.32
membership	0.40	0.41	0.43	0.41
general trust	0.52	0.50	0.58	0.49
trust in neighbours	0.62	0.27	0.68	0.25
confidence in police	0.71	0.25	0.74	0.23
importance of religion	0.46	0.42	0.45	0.39
Frequency of attending religious services	0.33	0.38	0.30	0.36
% union	0.26	0.44	0.33	0.47

US Benchmark:

Sample: US Benchmark	Working population NOT exluding self employed			Working population Union Members			Working population Non Union Members		
Variable	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev.
Happiness: 1-4 point scale	16519	3.33	0.58	2136	3.34	0.58	14383	3.33	0.58
Log of household income	16519	10.79	0.68	2136	10.89	0.58	14383	10.78	0.69
age	16519	39.75	12.08	2136	41.58	11.34	14383	39.47	12.16
male	16519	0.46	0.50	2136	0.54	0.50	14383	0.45	0.50
married	16519	0.52	0.50	2136	0.55	0.50	14383	0.51	0.50
Education: With University Degree	16519	0.40	0.49	2136	0.41	0.49	14383	0.39	0.49
Trust in co-workers, 1-4 scale	16519	3.40	0.79	2136	3.34	0.83	14383	3.41	0.78
general trust, 0-1 scale	16519	0.55	0.48	2136	0.56	0.48	14383	0.55	0.48
Trust in neighbours, 0-1 scale	16220	0.75	0.28	2111	0.76	0.27	14109	0.75	0.28
Confidence in police, 0-1 scale	16305	0.76	0.28	2101	0.74	0.30	14204	0.77	0.28
Dummy: union member	16519	0.13	0.34						
Non Hispanic White	16519	0.75	0.43	2136	0.73	0.44	14383	0.75	0.43

Sample: US Benchmark	Working population Non Hispanic White			Working population All Else		
Variable	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev.
Happiness: 1-4 point scale	12399	3.37	0.56	4120	3.21	0.61
Log of household income	12399	10.87	0.64	4120	10.58	0.75
age	12399	40.89	12.10	4120	36.32	11.34
male	12399	0.46	0.50	4120	0.45	0.50
married	12399	0.55	0.50	4120	0.42	0.49
Education: With University Degree	12399	0.43	0.50	4120	0.29	0.45
Trust in co-workers, 1-4 scale	12399	3.54	0.70	4120	2.99	0.91
general trust, 0-1 scale	12399	0.62	0.47	4120	0.35	0.46
Trust in neighbours, 0-1 scale	12206	0.81	0.25	4014	0.59	0.31
Confidence in police, 0-1 scale	12250	0.81	0.26	4055	0.63	0.32
Dummy: union member	12399	0.13	0.33	4120	0.14	0.34