Negative Labour Market Contingencies: Risks and Choices

When estimating an individual's *probable* earning capacity, *potential* (full-time, full year) incomes are typically adjusted downward for the negative effects of labour market contingencies. These contingencies reflect the likelihood that a person may not participate in the labour market, may be unemployed, or may work part-time.

One widely used approach to the estimation of labour market contingencies relies on information collected in Canada's 2001 Census, which provided detail by age, sex, province of residence and highest level of schooling. These detailed data on contingencies may be updated using changes in more general indicators that are provided by Statistics Canada's Labour Force Survey (LFS).

This approach generates estimates of *average* contingency deductions for a population that includes persons who *choose* not to participate in the labour market or to work part-time, as well as persons who are out of the labour market or working part-time for reasons that can be characterized as *risks*. That is, a portion of the deduction for average labour market contingencies of non-participation and part-time work is explained by choices people make, and the other portion is explained by risks that people face.

The LFS provides data on reasons for non-participation and part-time work that can be used to estimate the "risk" and "choice" portions of these two contingencies. Examples of reasons that are viewed as risks include illness or disability and adverse business conditions. Child rearing and personal preference are examples of choices.

Given that the term "unemployed" means "not employed but available and looking for work", the average contingency deduction for unemployment is entirely a reflection of risks.

Since some individuals may not choose to leave the labour market or to work part-time, it would be inappropriate to adjust their incomes downward using labour market contingencies that result from both risks and choices. In our view, their incomes should be reduced for only the risk portions of these contingencies.

The following example illustrates why it is important to apply the most appropriate contingency deduction (that is, risks and choices, or risks only) when estimating an individual's probable earning capacity.

Suppose that Ms. Smith, a single, 45 year old BC female, has been an active labour market participant and full-time employee with the same employer for the past 20 years. Further assume that she plans to continue to work full-time until her 65th birthday in order to build up substantial retirement savings, and then permanently retire from paid employment. Under these circumstances, it would be preferable to adjust Ms. Smith's future incomes for only the risk portions of labour market contingencies.

A simulation of earnings for BC females of Ms. Smith's age, using data for those whose highest level of education is classified as a high school diploma, suggests a deduction of about 49% for the future effects of labour market contingencies of non-participation, unemployment and part-time work. This percentage reflects the impact of both risks and choices on earnings. If this contingency allowance is applied, it reduces the survival-adjusted, present value of full-time, full year earnings from about $587,000 to **$299,000**, after rounding.

The risk portion of the overall contingency deduction is estimated at about 15%. It represents just under one third of the total contingency allowance of 49%. It is comprised of risks of non-participation of about 5.5%, risks of unemployment of about 5.5%, and risks of part-time work of about 4%.

If full-time, full year earnings are reduced by 15% for average risk factors the present value of probable earnings is about **$499,000** (rounded). This estimate is $200,000 higher than the one that is calculated using risk and choice contingencies. This example shows that limiting the contingency deductions to allowances for risks alone increases the present value of probable incomes by a factor of about 1.7.

If it is assumed that the future risks of unemployment and part-time work that Ms. Smith will face are negligible, contingencies for unemployment and part-time work will be much lower than those shown above. (Risks of unemployment and part-time work would likely be minor if Ms. Smith has a number of years of experience working in an unionized position that is expected to continue to be in high demand in the future, such as a letter carrier, for example.) Probable earnings that are reduced by a factor of 7% for average risks of non-participation and for minimal risks of unemployment and part-time work, have a present value of about **$546,000**, after rounding. This result is $ 247,000 higher than the one estimated using average deductions for both risks and choices.

The preceding examples show that in some instances the application of average risk and choice contingencies will lead to excessive deductions in full-time, full year earnings, which in turn results in estimates of probable earnings that are much too low, in our opinion. Yet, in other situations, it may be more appropriate to use average contingencies for both risks and choices, for example, when estimating the probable earnings of a young, inexperienced worker with uncertain career and family plans.