

**Task Force on the measurement of the quality of employment  
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**Statistical measurement of quality of employment working paper**

**Dimension 2: Income and non-wage benefits from employment  
Prepared by Statistics Canada**

**1. Introduction**

This working paper evaluates and analyses two important indicators in the UNECE Statistical Measurement of Quality of Employment Framework: income from employment and non-wage benefits. The paper will be divided into two sections; the first is an evaluation of the proposed set of indicators, and second, a proposal of new indicators.

An obvious component of work quality is the pay that people receive. The assumption of this dimension is that the higher the pay and other non-wage benefits of the job, the higher the quality of employment. Earnings are widely recognized as an important component to a job's desirability, and much attention has been focused on wages as criteria for evaluating a "good" job.

There are, however, important non-wage attributes of jobs that impact on an individual's perception of job quality. The issue of benefits is a particularly tricky issue for this framework. Some countries, for example, have universal health care and education, while others do not, making international comparisons difficult. Nevertheless, the benefits that an employer might provide and pay for are an important aspect of work quality that should not be ignored. After all, people value the pay, but they undoubtedly consider non-wage benefits like the paid leave that they may take, health coverage and other benefits when asking themselves "what is a good job?"

In a survey conducted on approximately 2,500 Canadians, over 6 in ten said that good pay was very important, while over half of the respondents said that benefits were "very important" in a job<sup>1</sup>. Interestingly, the same survey compared what workers want in a job to what they feel they actually get. The largest "job quality deficits" were noted in pay, benefits and the related concept of advancement opportunities.

**2. Currently Proposed Indicators: Income and benefits from employment**

These indicators provide information on any employment-related compensation paid to employees, or income earned from self-employment. This compensation can take the form of wages and salaries or other remuneration such as bonuses, commissions, gratuities, income in kind, taxable allowances, retroactive wage payments and stock options. This remuneration should be calculated on a "gross" basis – that is, before deductions such as contributions to income tax, employment insurance, pension funds etc. Information on other forms of remuneration should be included in these indicators as well, such as supplemental medical, dental or pharmaceutical benefits.

It was noted that many of the proposed indicators do not allow for comparable statistics across countries, especially those with reference to absolute levels. It was also suggested to complement the dimension with change indicators, such as transitions from one pay level to another.

- ***Income: share of employed below ½ of median hourly earnings***

This indicator of low employment income is a relative, rather than absolute measure. Meant to be a measure of risk of low income it is expressed on the basis of a central value of the income distribution (a key advantage of the median as opposed to the mean is that it is not influenced by extreme values, i.e. extremely low or high incomes).

Policy relevance: Since this indicator can be used as a proxy for low-wage earners, this is of high relevance to labour market policies, studies concerning low-wage earners and their families, and those interested in a “living wage.”

Completeness and pertinence: It may also be a useful indicator in countries where no minimum wage is established and used as a proxy for low wage earners. Although the indicator describes the relative wage distribution in a country, it does not measure the degree to which a wage-labourer’s earnings are sufficient for him/her to be a full participating member of his/her community. In order to get a more comprehensive picture, other factors like number of dependents and household expenditures as well as cost of living for the region could also be considered. This measure does not indicate the degree of dispersion between the lowest and highest wage earners.

A limitation of the indicator is that in some jurisdictions, the minimum wage may be set so low that relatively few workers are actually earning this amount (see first table in Appendix for Alberta, Canada data, where minimum wage is lowest in the country).

Redundancy with other indicators: No.

Comparability: Can be used to make comparisons internationally and historically.

Availability of data: Labour Force Survey

- ***Income: Share of employees paid at or below the minimum wage***

As a matter of principle, those who work at full-time, full-year jobs ought to be paid an amount sufficient to enable them to live with dignity, and to participate fully in their communities. Some call this a “living wage”: earnings that would enable workers to fulfil basic and social needs. “Addressing the need for jobs that pay a living wage is crucial for the success of Ontario’s Poverty Reduction Strategy<sup>1</sup>”.

Policy relevance: In Canada, about half the minimum wage workers were youths 15 to 24 years who lived with their parents, and so, for this group, a minimum wage job might not be employment of low quality. However, the consequences for adults working at or below minimum wage could put them at risk of falling into low-income, especially if they have numerous dependents to support. This indicator has high relevance for those interested in the social and economic consequences of groups who are at risk of becoming “the working poor.”

Completeness and pertinence: The minimum wage is a start point for those countries which have established minimum wage regulations. Used with other information—like family dynamics—this will give a more complete picture of low wage earners and their ability to provide for themselves and their families.

Redundancy with other indicators: No.

Comparability: Can be used to make comparisons internationally and historically.

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<sup>1</sup> “Work isn’t Working for Ontario families” May 12, 2008 Canada NewsWire Group, Toronto.

Availability of data: In Canada, legal minimum wage regulations are established by each province and territory. With this information and hourly wage data from the LFS, a profile of minimum wage earners can be constructed. Not all countries have established minimum wages; in this case, the ½ of median hourly wage can be used as proxy for those earning low wages.

- **Benefits: Share of employees entitled to paid annual leave**

There are obvious benefits to paid leave entitlement. Paid leave allows workers the time to rest and recuperate and helps them to balance work and life responsibilities, such as caring for family. It might also be argued that workers who are well rested and focussed may be more productive at work. As such, it is a natural candidate to be considered as a “quality of employment” indicator.

Policy relevance: In many industrialized countries, work-life balance is generally recognized and valued. This is reflected in the high shares of employees who are entitled to paid annual vacation leave, the shares who have taken paid annual leave and it is also reflected in labour legislation. This indicator will be useful to gauge and understand the work conditions and cultures of emerging economies and labour markets. In Canada, it is not so much a question of whether paid annual leave should be offered to a worker, but how much—which is discussed in the following non-wage benefit indicator.

Completeness and pertinence: This indicator by itself gives us a yes or no response to whether workers are entitled to paid annual leave. Used along with the number of days that workers are entitled to and also number of days taken as paid leave to give a more complete and dynamic picture of vacation taking behaviour among groups of workers and vacation offering behaviour from employers.

Redundancy: No.

Comparability: Historical analysis of data, and cross-country comparison.

Availability of data: Workplace and Employee Survey (WES), household surveys

- **Benefits: Average length of paid annual leave**

In Canada, workers are legally entitled to a minimum of two weeks after one year of service<sup>2</sup> or a percentage of wages in lieu of vacation days if they have not met the needed years of service. The length of paid annual leave a worker is entitled to may be an important factor when a worker is deciding on a job offer. Some employers may offer workers a “flex day” or equivalent, in addition to the annual vacation leave. Here, workers may choose one day of the month to take off as a paid vacation.

Policy relevance: Compared with many European countries Canada's paid annual leave entitlement is relatively low—two weeks after one year of service—versus four to six weeks on average in some of European countries. It is up to individual employers to determine the length of leave workers are entitled to, outside of the legal requirement. Is the two week minimum reflective of the amount of time workers need to take care of themselves and their families? What types of paid leave are employers offering their workers and how does this help alleviate the pressures of work and life responsibilities.

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<sup>2</sup> “Working people deserve more paid vacation time,” Jackson, Andrew and Jacinta Athaide, Canadian Labour Congress. July 27, 2007. [www.canadianlabour.ca](http://www.canadianlabour.ca)

Completeness and pertinence: While the previous indicator share of employees entitled to paid annual leave tells us how many workers have access to paid leave, what it does not tell us is how many days on average workers actually take as paid annual leave. This is an important distinction as a worker may be “entitled” to take two weeks, but may only take one week on a yearly basis, due to social norms. Or alternatively, a worker may take more days of paid leave than entitled to, as with the case of one flex-day per month.

This indicator will more accurately reflect how much paid vacation a worker actually takes in a year. Used in conjunction with information on how many days a worker is entitled to, we can determine for certain industries in a country if entitlement varies from actual days taken or within other work groups.

Redundancy: No

Comparability: Can be used for historical analysis and comparative cross-country analysis. Any cross-country analysis should provide context to that countries norms of paid annual leave and work culture. Countries vary in how many days a worker is legally entitled to as paid annual leave, and differ in work cultures.

Availability of data: Workplace and Employee Survey (WES), household surveys

### **3. Proposed new indicators: Income and benefits from employment**

- ***Real wages***
- ***Distribution of wages by quintile***
- ***Supplemental medical insurance plan***
  
- ***Income: Real wages***

Pay is an important component of what workers consider in evaluating the quality of their employment. A key tenet of a “living wage” is that wages should reflect the cost of living. For groups at risk of low-income and who earn a low wage this can be an especially pressing point. Low-wage earners can spend a larger share of their income to purchase the basics, but when the costs for these increase and their wages do not, then these workers have to survive on less. This is often a key bargaining item of unions in negotiations between employers and their members.

Policy relevance: A good job should be one where wages change to reflect changes in the cost of living. This is particularly important to the most vulnerable members in a society such as those living in low income. Low wage earners might be strained to adjust as prices for food and fuel costs increase sharply as they have in recent months around the world. This measurement will indicate the extent to wage growth for certain groups have kept up with inflation.

Completeness and pertinence: Real growth wage adjusts for inflation and this shows the relative changes in wage over time compared to inflation or deflation. It is important to acknowledge and reflect the changes in the cost of living in wages. The rising cost of living reduces the purchasing power of workers wages.

Redundancy with other indicators: No.

Comparability: Changes in real wages can be used to make comparisons internationally and historically.

Availability of data: data come from the LFS or censuses and CPI

- ***Income: Distribution of wages by quintile***

One common way of looking at the dispersion of wages or employment incomes among workers is to rank members into five equal wage groups called quintiles. The first quintile represents workers who earn the lowest 20% of median hourly wages and the fifth quintile represents those earning the highest 20% of median hourly wages from employment.

Policy relevance: This measurement describes wage disparities and wage polarization among workers in a labour market. It is important to recognize that some labour markets have more wage dispersion and polarization than others and it is dynamic so changes over time. This will provide the structural or macro-level context in which we discuss the individual experience of work and quality employment. This is a good tool to measure wage dispersion and aid policy makers to understand what is behind the growing wage disparities of workers.

Completeness and pertinence: This can be used to calculate the share of workers who are in the lowest and highest wage quintiles and it will also be used to calculate a ratio of high to low wage earners. When a ratio of median hourly wages are calculated for the top and bottom quintiles this will give an indication of polarization. Combined with individual level information such as education, occupation, industry and age and other socio-demographic data, a more comprehensive picture can be constructed to learn who gets the well paying job and who is left out. Adjusted for inflation, we can determine what real wage growth looks like for those at the top and bottom ranks of the wage scale.

Redundancy with other indicators: No.

Comparability: This measurement will allow cross country comparisons as well as historical analysis.

Availability of data: LFS, household surveys or censuses

- ***Benefits: Supplemental medical insurance plan***

Non-wage benefits such as a supplemental medical insurance plans paid for by the employer can help workers alleviate the costs of services and purchases related to vision care, counselling, physiotherapy and other types of rehabilitation and medical care. There is no question that such plans are attractive to job seekers and are a direct financial benefit as such they are often called pecuniary non-wage benefits. These supplemental medical plans contribute to a workers overall well-being and thus quality of working life and either eliminate entirely or reduce in part the cost that a worker would have to pay out-of-pocket.

Policy relevance: While the provinces and territories in Canada each administer their own medical insurance plans to guarantee their residents free access to basic health care, certain costs are excluded such as purchases for eye glasses or prescription drugs and related products or health services. Which workers are unlikely to have access to supplemental medical insurance plans at work?

Completeness and pertinence: Supplemental medical insurance plans are typically identified to go hand in hand with a compensation package in the Canadian context. The employer pays for entirely or in part for services or purchases that workers would have otherwise have to pay for out-of-pocket. When this indicator is used with others such as paid annual leave and income, would give a more complete account of the worker's quality employment.

Redundancy with other indicators: No.

Comparability: Historical comparability and cross country comparisons.

Availability of data: Workplace and Employee Survey (WES), household surveys

## Appendix: Income and non-wage benefits in the Canadian context

### *Income: Share of employees paid at or below the minimum wage*

Province share = number of employed at or below minimum wage in a province / number of employed in that province.

Canada share = number of employed at or below minimum wage (according to each provincial minimum wage) / number employed nationally

Distribution of employed employees earning minimum wage or less for workers 25 to 54 years											
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Canada	2.7	2.4	2.3	1.9	2.0	1.8	1.7	1.8	1.8	1.7	2.1
Newfoundland & Labrador	5.1	5.3	4.2	4.0	3.1	3.2	4.3	3.5	3.4	4.4	4.4
Prince Edward Island	1.7	1.4	0.8	1.1	1.1	1.3	1.0	1.3	1.5	1.6	2.8
Nova Scotia	4.0	2.9	2.8	2.1	1.7	1.7	2.1	2.3	2.1	2.6	2.3
New Brunswick	3.6	3.0	2.9	2.7	1.8	1.8	1.9	1.3	1.1	1.8	2.2
Quebec	3.4	3.0	2.9	2.5	2.9	2.4	2.3	1.8	2.1	1.8	2.3
Ontario	2.6	2.3	2.0	1.5	1.3	1.1	1.1	1.5	1.6	1.6	2.5
Manitoba	1.4	1.5	2.3	2.0	1.7	1.8	1.7	2.2	1.9	1.8	2.3
Saskatchewan	2.5	1.7	3.4	2.5	2.1	2.0	2.2	1.1	1.6	1.9	1.5
Alberta	1.0	0.9	1.0	1.0	0.8	0.6	0.6	0.6	0.9	0.8	0.7
British Columbia	2.8	2.5	2.4	2.2	3.3	3.7	3.1	3.5	2.7	2.2	1.7
Source: Statistics Canada, Labour Force Survey, Special tabulation Client Services											

### *Income: Real wages adjusted for inflation*

From 1997 to 2007, employment Canadian workers 25 to 54 years grew from 8.6 million to 10.0 million. Employment for this group grew 16 percent, while real median wages increased 4.6% over the period.

Median hourly wages for employees 25 to 54 years		
Year	In current dollar	In constant 2007 dollars
1997	15.50	19.12
1998	15.87	19.38
1999	16.10	19.32
2000	16.83	19.67
2001	17.03	19.42
2002	17.58	19.60
2003	18.00	19.52
2004	18.27	19.46
2005	19.00	19.80

2006	19.23	19.65
2007	20.00	20.00

Source: Labour Force Survey and Consumer Price Index (CANSIM table 326-0021)

**Income: Distribution of wages by quintile**

To determine real wage growth for each wage quintile, we need data for median hourly wages in current dollars and we can adjust to real wages using the CPI series from 1997 to 2007. With this we can compare real wage growth for the top and bottom wage earners.

This can also be used to determine wage dispersion or polarization between the quintile groups. By using the constant 2007 median hourly wages, we can compare the fifth quintile to the first in a ratio.

Real median hourly wage of Fifth quintile = Dispersion of median wages for high and low earners  
Real median hourly wage of First quintile

Number of workers in Fifth quintile

Number of workers in First quintile = Ratio of high to low wage earners

Over time, the ratios could be used to do historical comparisons and show if the wage gap is growing between high earners and low earners, when real median wages are used (adjusted into constant dollar to reflect real wage growth). In addition, the ratio of high to low wage workers describe the employment change over time in a labour market.

**Real wage growth in each quintile**

Estimates of employed (private and public) persons and median hourly wage, by hourly wages (quintiles), annual averages, 1997 to 2007 (in 2007 constant dollar).					
	First quintile	Second quintile	Third quintile	Fourth quintile	Fifth quintile
1997	9.87	14.80	19.13	24.67	33.30
1998	9.83	14.76	19.49	24.42	33.89
1999	9.90	14.85	19.32	24.62	33.86
2000	10.19	15.12	19.67	24.72	33.89
2001	10.26	15.22	19.54	25.08	34.48
2002	10.04	15.38	20.01	25.65	35.21
2003	10.81	15.24	19.52	24.98	34.71
2004	10.60	15.29	19.46	25.06	35.14
2005	10.42	15.42	19.80	25.20	35.43
2006	10.22	15.33	19.69	25.55	36.28
2007	10.38	15.50	20.00	25.96	36.41
Real wage growth over period (%)	5.2	4.7	4.5	5.2	9.3

Source: Labour Force Survey, special tabulation.

## Ratios of wage dispersion and employment

Ratio	Employment High/Low	Median wage High/Low (In constant 2007 dollars)
1997	0.94	3.4
1998	0.93	3.4
1999	1.00	3.4
2000	1.00	3.3
2001	0.99	3.4
2002	0.96	3.5
2003	0.89	3.2
2004	0.96	3.3
2005	0.99	3.4
2006	0.99	3.6
2007	1.00	3.5

Source: Labour Force Survey, special tabulation

### **Benefits: Share of employees entitled to paid annual leave**

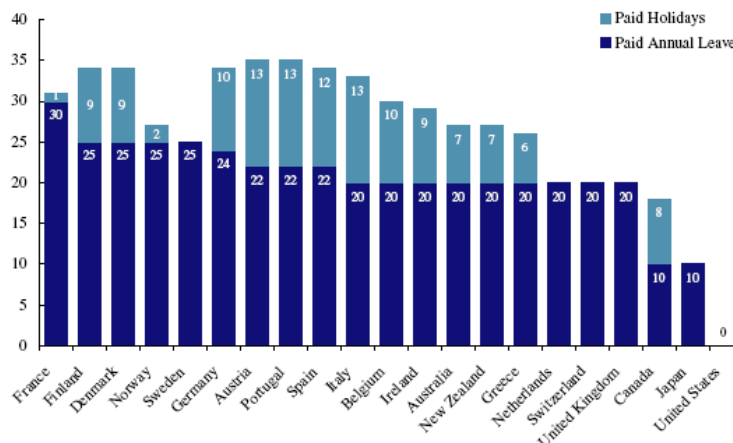
### **Benefits: Average length of paid annual leave**

In Canada, 85.7% of employees were entitled to paid annual leave in 2005; this share has not changed considerably since 2001. On average these employees were entitled to almost 15 working days in 2005. However, they took only 11.4 on average. About three out of four employees took annual paid vacation leave in 2005, and this share has changed little since 2001.

Year	2001	2003	2005
Average number of days of paid vacation entitlement	13.8	14.4	14.7
Average number of days of paid vacation leave taken	10.6	11.0	11.4
% of employees taking annual paid vacation	74.7	76.4	75.9
% of employees entitled to paid annual leave	83.6	85.6	85.7

Source: Statistics Canada, Workplace and Employee Survey (Employee).

Paid Vacation and Paid Holidays, OECD Nations, in Working Days



Source: "No Vacation Nation", Ray, R and John Schmitt, May 2007, Center for Economic Policy and Research; Washington D.C. [www.cepr.net](http://www.cepr.net).



**Benefits: Supplemental medical insurance plans**

2005	
<i>Employee and Workplace Characteristics</i>	Supplemental medical insurance plan %
Overall	51.3
Industry Group	71.2
Mining & Oil & Gas Extraction	
Accommodation & Food Service	17.9
Admin Support, Waste Management and Remediation Services	39.7
Construction	46.6
Education Services	66.7
Finance and Insurance	71.4
Forestry, Logging and Support	52.9
Health Care and Social Assistance	49.7
Information, Cultural and Recreation	53.3
Management of Companies and Enterprises	69.6
Manufacturing	61.1
Other Services	42.1
Professional, Scientific, and Technical services	62.9
Real Estate, Rental and Leasing	45.6
Retail Trade	36.8
Transportation and Warehousing	54.4
Utilities	72
Wholesale Trade	62.1

Source: Statistics Canada, Workplace and Employee Survey (Employee).