

# Productivity and Building Human Capital for the “Bottom Third”

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DESPITE ALL OF THE RHETORIC on the need for lifelong learning in a knowledge-based economy, real opportunities to learn are very limited for the vast majority of workers in low paid/low skilled jobs. Lack of access to training means that the working poor are trapped in low productivity jobs, many of which are to be found in private consumer services. At the same time, low productivity jobs are a significant drag on the overall level of labour productivity and on productivity growth in the business sector.

This problem will not be resolved by purely ‘supply-side’ adult learning and training policies. While access to training is important, policies must also work to enhance employer demand for skills, and to promote ‘high road’ restructuring of low productivity/low skill jobs. This article argues that paid training leave funded through the Employment Insurance system and rooted in workplace-based institutions could foster both stronger productivity growth and a more equitable labour market.

## Skills and Productivity

It is very widely agreed that investment in human capital is key to productivity growth in a knowledge-based economy. While it is difficult to separate out the precise contribution of human capital *per se* to productivity growth,

investment in education and skills is central to innovation and, at a minimum, facilitates the introduction of productivity-enhancing new technology and new forms of work organization (OECD, 2005). The OECD has found that increased educational attainment of the workforce raises the rate of real economic growth. Employer investment in training has been shown to have significant positive impacts on firm-level productivity (Bartel, 2000).

Economic research on productivity has tended to focus on the importance of investment in physical capital and innovation, with some attention to the contribution of highly educated managers and professionals, and highly skilled production workers to innovation and to the successful introduction of new technologies. Similarly, the dominant focus of public policy has been on boosting investment in capital equipment, and in research and development through tax and other measures, and the primary focus of human capital policies has been on public education, including post-secondary education, rather than on adult learning and workplace-based learning.

Public funding to support employer-sponsored training or adult learning programs for employed Canadian workers is extremely modest, and indeed is mostly limited to pilot projects. With the exception of apprenticeship

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programs, no jurisdiction in Canada provides significant support for training leaves for workers, and only Quebec imposes any kind of statutory obligation on employers to provide workplace training.

However, widely cited recent research by Coulombe *et al.* (2004) suggests that raising the average level of skills (as measured by literacy and numeracy levels) has a stronger impact upon productivity than does raising the proportion of the workforce with high skills. This is, perhaps, unsurprising given that the majority of the workforce in all advanced industrial countries, not least Canada, still has quite modest educational and skills attainments, and that many workers are employed in low productivity/low skilled jobs. Coulombe *et al.* calculate that a one per cent increase in mean literacy skills relative to the international average can raise labour productivity by two per cent.

Most low productivity/low skilled/low pay jobs are to be found in consumer services, such as retail trade, recreation, and accommodation and food services, as well as in some business services (such as security and building cleaning). In combination, such services contribute at least 15 to 20 per cent of business sector GDP. Rao *et al.* (2004) note that 85 per cent of the Canada-US productivity gap is accounted for by services, with 30.5 per cent of the gap accounted for by retail trade and “other services” largely outside of business services. Put simply, if we want to raise productivity levels and productivity growth, we should think about how to improve low pay/low productivity jobs.

### **Exclusion of the “Bottom Third” from Investment in Human Capital**

The majority of young adults in Canada (age 25-34) have completed some form of post-secondary education, the highest proportion in the OECD, and a little more than one in four have

completed a university degree. While average educational attainment is high in comparative terms, only 8 per cent of this age group has completed an advanced degree. Looking at the half-empty part of the glass, almost half of all younger adults have not completed any form of post-secondary qualification, and a large proportion of the college graduates in the top-half of the glass have completed only a two-year vocational qualification (OECD, 2005).

While Canada scores about average in terms of literacy and numeracy among adults, based on data from the *International Adult Literacy Survey* (IALS), only about one in four adults functions at the highest levels (Level 4/5) of prose literacy, document literacy, and numeracy, and about one in three adults scores at very low levels (Krahn and Lowe, 1998). Literacy attainment in Canada is well below the OECD average for persons with low levels of formal education (Coulombe *et al.*, 2004).

Data from the IALS and Statistics Canada’s *Adult Education and Training Survey* clearly show that, once in the workforce, those with advanced education are the most likely to receive employer-sponsored training. Participation in Canadian adult education is very heavily skewed to those with high literacy skills (60.5 per cent of those at Level 4/5 versus 17.2 per cent for Level 1) (OECD, 2002). Just one in five workers in the private sector participates in formal employer-sponsored education, with much lower levels of participation by workers with low levels of formal education (one in ten for those with no post-secondary qualification). Participation is even lower for the less-educated in small firms, while the growing ranks of contract workers and own account self-employed are almost entirely excluded from workplace-based training. (For data and further discussion, see Jackson 2005, Chapter 3.) In short, and as is widely recognized, Canada does not have an effective adult education and training system in terms of reaching the

bottom third of the workforce, and provides little in the way of a “second chance” for those who have not completed a post-secondary qualification (OECD, 2002).

There is substantial evidence of a large unmet demand for adult learning, with the key obstacles to participation in formal education and training being lack of time and money on the part of less skilled, lower paid workers (OECD, 2002; Livingstone, 2002, 2004). It is also widely recognized that there are significant obstacles to the employer provision of training for less educated workers, such as cost, lack of training capacity in smaller enterprises, and lack of certainty that employers who train their workers will be able to recoup the costs of training investments, especially in high turnover parts of the job market.

Low skill adult workers are concentrated in low paid and insecure jobs which carry a high risk of poverty and offer few prospects for advancement. Almost one in four (23.6 per cent) workers earned less than \$10 per hour in 2001 (roughly the wage needed by a full-time, full-year worker to reach the LICO (Statistics Canada Low Income Cut-Off) line in a large urban area), and the real median hourly wage has been unchanged since 1981, falling slightly for men, and rising slightly for women. Real wages have fallen for most lower paid workers, especially young workers, despite rising levels of educational attainment. Among full-time workers, overwhelmingly adults, one in eight men and one in five women earn less than \$10 per hour. Of adult low-wage earners aged 25 and over, about half of men remain low paid for significant periods of time compared to two-thirds of women (Morrisette and Picot, 2005; Morrisette and Johnson, 2005). Precarious work — defined as low paid and/or very unstable employment — is concentrated among women, young adults, single older adults with limited education, persons with disabilities, and especially, recent immigrants.

Research suggests that the pay, economic security, and opportunity gaps between the less skilled and the highly educated have been growing rapidly, with much of the gain in national income over the 1990s going to the very top of the income distribution. This should be cause for concern, not just from the perspective of income adequacy, but also from the perspective of equal opportunities for all citizens to develop their full capacities and potential, and the need to create a more inclusive society. Some suggested policy remedies such as earned income tax credits for the working poor may be part of the answer, but they fail to address the wider problem of low productivity/non developmental/low skill jobs.

### **Supply-side versus Demand-shaping Policies**

The OECD in successive issues of the *Employment Outlook* and Peter Hicks (2002) in a major “new social policy architecture” piece written for Human Resources Development Canada have stressed the central role of lifelong learning in promoting participation with equity in a changing job market. Hicks argues that “lifelong learning for all is the best concept” since it serves both competitiveness and equity/social cohesion goals. The concept of lifelong learning figures prominently in major policy statements by Canadian governments, even though action falls far short of the rhetoric.

However, supply-side policies alone are not the solution to low wage/low productivity/low skill work. While it is certainly true that better educated persons fare better as individuals in the job market, education credentials may act more as a sorting device than as a true indicator of skill demands. A key problem is low skill content in jobs relative to the actual skills of workers holding those jobs. Krahn and Lowe (1998) and Livingstone (2004) provide overwhelming evidence

that many low wage workers are over-educated and/or over-skilled in terms of literacy and numeracy levels relative to the very limited demands of the routinized jobs they hold. Some 20 to 30 per cent of all jobs rarely, if ever, make use of literacy skills, and 40 per cent rarely, if ever, draw on quantitative skills (Krahn and Lowe, 1998: Table 2.5). About two-thirds of the jobs held by workers in relatively unskilled occupations involve little or no worker discretion or control (Jackson, 2005: Chapter 4). Adequate literacy and numeracy skills among younger workers who have recently left the education system often atrophy due to lack of use in the workplace. In the Canadian context, there is also strong evidence that many recent immigrants are significantly underemployed relative to their education and skills.

Unfortunately, Canada lacks a survey comparable to the *European Survey on Working Conditions*, which clearly shows a lack of employer demand for skills and discretion on the job across a wide spectrum of jobs, especially in consumer services. For example, about one in four workers in the European Union has a job which involves short, repetitive tasks with job cycle times of less than one minute, and most non-professional/managerial workers have limited control over the work process (Jackson, 2005: Chapter 4).

Livingstone (2002) argues that there is no automatic translation of higher skills or education supply into higher demand and that, while temporary skills shortages can and do exist, the dominant tendency in the job market is for the supply of worker skills to exceed employer demand. He argues for a supply-demand interaction theory in which employer demand for skills can be raised by bargaining and other external forces. For example, unionized workers, holding all other factors constant, receive more training than do non-union workers (Livingstone and Raykov, 2005). About half of all

workers covered by collective agreements are covered by (usually permissive rather than mandatory) contract provisions on employer-provided training. While this partly reflects the fact that employers must raise productivity to pay higher union wages, it also reflects the fact that unions can and do bargain for access to training as a means to improve the quality of jobs and labour market opportunities for workers.

Effective sectoral institutions may also raise employer investment in skills by countering some of the barriers of firm training capacity and competition for workers between firms which train and those which do not. Higher levels of employer investment in training in many continental European countries compared to Canada are generally seen as a product of a “training culture” and of effective sectoral and workplace-based institutions, such as unions and works councils, which counter-balance the chronic tendency for employers to under-invest, particularly in the relatively unskilled (OECD, 2003). In sum, joint employer-labour institutions at the workplace and/or sectoral level tend to be associated with higher levels of firm investment in training, and likely, higher skill requirements in higher productivity jobs.

### **Human Capital Investment and Higher Productivity in Low Wage/Low Skill Jobs**

A key policy issue is how to change jobs so that employers develop and use the skills of workers in such a way as to make jobs more interesting and developmental, while also raising productivity and pay. One lever is higher pay via higher minimum wages or more widespread collective bargaining in low pay/low productivity sectors. A higher wage floor is likely to raise productivity and employer investment in skills, as is suggested by the new minimum wage literature. Training institutions can also potentially play an important role.

While much more work needs to be done in this area, there is some evidence that skills investment and job redesign can raise productivity in otherwise low pay/low productivity parts of the job market such as consumer services.

As is widely recognized, the structure of hourly pay differs quite profoundly among advanced industrial countries. The Scandinavian countries have a much more compressed hourly wage distribution, mainly due to widespread collective bargaining, even in private services such as retail trade and restaurants and hotels. The ratio of the median full-time hourly wage to the top of the bottom decile (i.e. the p50/p10 ratio) is 1.5:1 in Sweden and Denmark compared to about 2:1 in Canada (data from OECD database). Retail trade workers in Sweden earn about 90 per cent of the average manufacturing wage compared to about 60 per cent in Canada.

While labour market institutions are likely the most powerful explanation for these differences, there is some evidence that narrower skill differentials also play a role (Schettkat, 2002). IALS data show that the skills of the bottom third of the workforce (measured by literacy and numeracy) are significantly higher in Sweden and Denmark than those of the bottom third of the workforce in Canada. The percentage of employees with low (Level 1-2) literacy and numeracy scores is much higher in Canada than in Sweden (e.g. 34 per cent versus 20 per cent for quantitative literacy, and 38 per cent versus 24 per cent for prose literacy) and literacy gradients among young adults are steeper and more closely linked to social class origins (Kapsalis, 1997; Willms, 1999).

Higher skills for lower paid workers in the Scandinavian countries may partly reflect the impact of higher investment in human capital from early childhood, but workplace-based training jointly delivered by the 'social partners' likely plays a major role as well. In Denmark, for

example, levels of workplace training and labour market training for the temporarily unemployed are markedly higher than the European, let alone the Canadian, norm, and are significant even in consumer services. Skills appear to be utilized to a greater degree in such sectors than in many other countries, based on data from the *European Survey of Working Conditions*, and rates of mobility from low wage to higher wage work are also much higher (for references, see Jackson 2005, Chapter 11).

Detailed sector level studies also indicate that investment in skills mediated through joint labour-employer institutions can raise the quality of jobs in traditionally low paid/low productivity parts of the private services sector. (For several case studies, see Applebaum *et al.*, 2003.) To take one example, in at least two large US cities, the hotel workers' union (HERE) and large hotels have jointly sponsored and financed training programs which create job ladders for low skill workers. Potential job ladders which can be climbed through language and skills training run from housekeeping, to food preparation, to food and beverage servers, to desk clerks, to supervisory and managerial positions, with pay and job quality improving at each step. Hotels which compete for customers design and deliver training with the union at a sectoral/community level, and recruit from the training centre. These institutions are reported to lower worker turnover and improve service quality and productivity, in turn, supporting higher pay (Wial and Richert, 2002).

### **A Policy Lever for Lifelong Learning: Training Insurance under Employment Insurance**

The Canadian Labour Congress (CLC) has called for income insurance benefits under the Employment Insurance (EI) program for workers who take education or training leaves as part of a formal training plan. This would represent

an extension of the current apprenticeship training provisions under EI, which provide income support for apprentices during the classroom part of their training. Like other EI benefits, educational and training leaves would be paid for through employer-worker premiums rather than from general tax revenues, and access would be based on significant attachment to the labour force.

The CLC has proposed pilot projects in health care and manufacturing before any extension of the program to cover all employees. It is envisaged that access to benefits would replicate some key elements of the apprenticeship model, critically including a formal human resources planning process that genuinely involves workers, employers, and educational institutions. Pilot projects could be developed by the existing sectoral skills councils which have been sponsored by Human Resources and Skills Development Canada, or jointly by unions and employers at the workplace, or at the sectoral and community level. For example, a group of hotels and hotel workers' unions in a city could develop and finance a training institute, and would assume responsibility for training costs other than income support during a period of training leave.

Several concrete proposals have already been developed involving employers, unions, and

educational institutions, including proposals to raise the skill level of low paid workers, and to create ladders to better jobs. For example, nurses' unions have proposed projects to upgrade the skills of licensed practical nurses so that they can become registered nurses (RN), an occupation in which a serious skills shortage will soon emerge. The potential for such a program is large given that many licensed practical nurses are recent immigrants who have educational backgrounds and job experience which would enable them to meet RN certifications relatively quickly.

While no single policy lever is the answer to raising productivity and job quality in low paid/low skill work, paid training leaves under EI have the potential to help build more effective workplace and sector-level training institutions of the kind which have worked well elsewhere. In effect, they would create an incentive for employers to work in concert with other partners, and to develop training strategies. Much of the cost of training would still be borne by workers (in the form of lower pay since EI only partly replaces earnings) and by employers (to the extent that the leave is a cost, and to the extent that they would support tuition and other direct training costs). But, this proposal has the potential to move the rhetoric of lifelong learning for all much closer to reality.

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