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Fewer Job Opportunities for Unskilled Workers **As Computer Use Spreads**

Ottawa – Computers are changing workplaces across the country, but they are creating winners and losers in the process. In a Canadian Policy Research Networks Inc. (CPRN) study released today, hard survey evidence covering 15 years' experience of computerization of Canadian businesses shows that unskilled workers are being left behind as workplaces go "high-tech".

The report, *Skill and Employment Effects of Computer-Based Technology - The Results of the Working with Technology - Survey III*, provides new evidence that computer systems are eliminating low-skilled jobs, concentrating new job opportunities in highly skilled technical areas, and that training opportunities are primarily for workers who are already highly skilled and relatively well paid.

The Working with Technology Survey has been carried out three times and has now tracked the computerization of Canadian industry since the early 1980s. It has documented the steady increase in computer use through time. The percentage of employees working with computers rose from 16 percent in the mid-1980s, to 37 percent in the early 1990s, to 43 percent in 1994. As this figure has climbed, employment and the nature of work have been dramatically affected.

Now that computer technologies have spread more deeply into workplaces, organizations are beginning to transform themselves around the technologies, says Kathryn McMullen, a research associate with CPRN and author of the study. For some workers, that's good news as their work becomes more challenging and as the demand for their skills increases. For others, however, it's bad news. They lack the skills needed in these re-vamped workplaces and are seeing their positions eliminated.

The survey shows that the types of jobs being created by the new technologies are predominantly in applied sciences and engineering. The kinds of jobs being eliminated, however, are very different. They are mostly semi-skilled and unskilled positions. And, unlike the 1980s when office technology was rarely used by managers and professionals, the most recent evidence

indicates that computers are a central part of working life for these groups and the result is a significant displacement of clerical workers.

Many of the workers who are being displaced by the new technologies must shift to other industry sectors that still use workers with relatively few skills. But, often this work is low-wage, part-time or temporary, and offers few of the benefits they had previously.

Whatever their skill level, those workers who remain after computerization are also seeing the skill requirements for their jobs rise as a result of the new computer systems. While most organizations reported providing training when putting computer technologies in place, that training tended to focus on the highly skilled employees.

“As companies adapt to computer technologies and as workplaces are restructured in the process, employment opportunities for semi-skilled and unskilled workers are disappearing in many sectors,” says Judith Maxwell, president of CPRN. “These kinds of workers are not being provided with the skills they need to move into the newly created positions. This is one of the factors contributing to a growing gap between the haves and the have-nots in Canadian society.”

In addition to documenting these effects of computer-based technologies, the study identifies some of the policy implications. “Clearly, in order to be able to compete for ‘good’ jobs, individuals need to be equipped with strong computer skills,” McMullen notes. “But, for many, that means that literacy, numeracy, and communication skills must be strengthened first.”

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CPRN is a national not-for-profit research institute whose mission is to create knowledge and lead public debate on social and economic issues important to the well-being of Canadians, in order to help build a more just, prosperous and caring society.

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