

# Gender Differences in an Austrian IT Manufacturing Plant

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## INTRODUCTION

Despite the gains women have made in the last three decades, a large body of research has recently emerged suggesting that major economic changes occurring on a global scale are having detrimental consequences for women's labor-market position. At best, these developments are judged to likely limit further progress toward gender equality (Human Resources Development Canada [HRDC], 2002).

While in industrialized countries the manufacturing and primary industries have declined, the service sector, where women have traditionally been concentrated, has grown quite substantially. The service sector is highly heterogeneous, encompassing both well-paid professional and technical occupations as well as low-skill, poorly paid occupations. A stratum of highly skilled, high-status workers has emerged, coupled with a large mass of technically semiskilled or unskilled workers who acquire their training on the job or in short courses lasting a few weeks (Standing, 1989). Wage polarization has accompanied the growing demand for highly skilled workers and declining demand for unskilled labor. Increasingly, the workforce is segmented into a primary labor market offering good wages, job security, and opportunities for advancement, and a secondary labor market of low-paid, contingent workers (Economic Council of Canada [ECC], 1991). Women, and especially visible minority women, remain overrepresented in the latter.

Much of the literature on gender differences in the IT workforce has focused on the high-end IT jobs. Relatively little is known about low-end IT jobs

and the role of gender. The IT industry is mainly a service-oriented industry. However, many of the tools used in these services have to be manufactured by IT manufacturers. In this study, we examine gender differences in the working conditions (job and organizational characteristics, and quality of working life [QWL]) of employees in a chip-manufacturing plant.

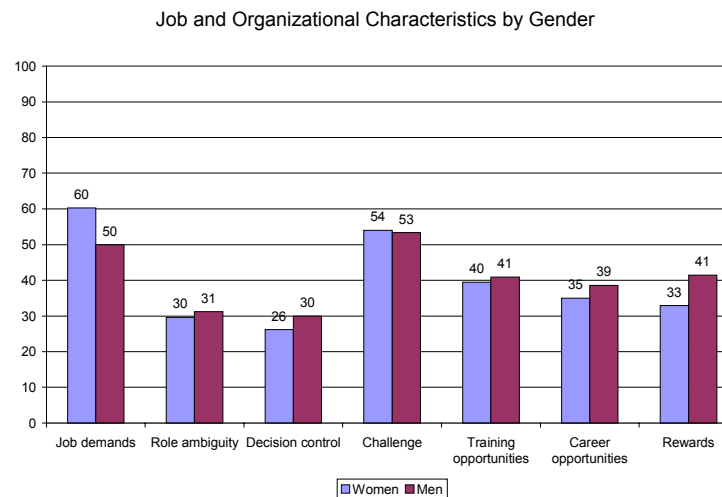
## BACKGROUND

Services make up nearly two thirds of employment in the Western world. The role of other industries is becoming less and less important. Most of the manufacturing of goods is being outsourced to developing countries such as China, India, and so forth. However, at the same time, high-tech manufacturing has been developed in the Western world. The manufacturing of high-tech goods such as medical equipment and aerospace, aviation, and high-end IT products still partly takes place. Also, in the high-tech manufacturing industries of the industrialized countries, jobs are often held by technically semiskilled or unskilled workers who acquire their training on the job or in short courses lasting a few weeks (Standing, 1989). Furthermore, these jobs are characterized by nonstandard forms of work, such as part-time, temporary, and shift work. Women are much more likely than men to have nonstandard employment (Krahn, 1995). Working nonstandard hours typically puts people out of sync with family and friends, and may have negative consequences for the functioning of family life and the stability of marriages (Presser,

Table 1. Job positions by gender

	Blue Collar	White Collar	Total
Female	42 (93%)	3 (7%)	45 (7%)
Male	513 (86%)	80 (14%)	593 (93%)
Total	555 (87%)	83 (13%)	638 (100%)

Figure 1. Job and organizational characteristics by gender



2003). Traditionally, women have been employed in the service sector. For example, the OECD (2005) reports that women are now overrepresented among public employees in all countries. In industrialized countries, 75% of women are employed in historically low-paying, service-sector jobs; 15 to 20% work in manufacturing; and some 5% in agriculture (International Labour Organization [ILO], 1995).

A large number of studies have dealt with gender differences in IT work. Earlier studies report that female IT workers have higher levels of psychosomatic complaints than male IT workers (Bradley, 1983). Furthermore, results have shown that monotonous and repetitive work with computers is more often performed by women (Evans, 1987), and women receive less skill upgrading by training than men (Gutek & Bikson, 1985). Therefore, quite a pessimistic picture of women and information-technology work emerges, putting an emphasis on the possibility that a polarization of qualification due to the technologies could be accompanied by a polarization between the sexes (Greve, 1987).

Some of the studies on job characteristics support this polarization hypothesis. In the study of

Aronsson, Dallner, and Arborg (1994), the group of persons performing data-entry jobs—90% of whom were women—showed the highest level of psychosomatic complaints. On the other hand, programming personnel (mainly men) stated that due to the use of information technologies, their jobs had improved; they reported the lowest level of psychosomatic complaints. Further studies found more negative impacts of information technologies on work for women (Cressey, 1992; Hackett, Mirris, & Scales, 1991; Parasuraman & Igarria, 1990).

While Austria has a general female employment rate clearly above the OECD average (in 2003, 61.5% of the women of working age were employed, as compared to an OECD total rate of 56.3% and an EU-15 rate of 56.1%; OECD, 2005), the female employment rate in the electrical and IT industries is relatively low. Especially low rates are found for blue-collar work, in which the female employment rate is 14.3%. In this article we compare the job and organizational characteristics, social support, work-family conflict, and quality of working life of male and female employees in an Austrian IT manufacturing plant.

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