

# Welcome to the e-Society

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## Following the path taken by of the other countries Poland's occupational and economic structure changes due to expansion of information and communication technologies

Since the early 1990's, personal computers and information networks have been deeply penetrating the information-processing activities of the advanced economies. Furthermore, information and "informatization" have become the most important factors in the theory of global civilization change and the rise of the "new society" - an information society characterized by the dominance of the "information sector." From this perspective, the modern economy has become an information and global arena in which data-intensive techniques and electronic technologies are the new strategic resources. Several information society analysts have argued

that information handling is not merely a feature of existing jobs, nor even a central element of a certain number of jobs. Rather, they see it as a key dimension for characterizing contemporary labor markets and the "new economy." One crucial question for discussing the criteria of the information sector is: What impact do Information and Communication Technologies have on sectors and occupations?

### Two perspectives

As work lies at the core of social structure, analyzing employment and occupational trends offers insights into the current impact of the emerging information economy. At the macro-structural level, increasing information activity and growth in information work constitute directly observed evidence of the information sector. "Informatization" can thus be studied at the level of work organization for particular jobs. These two analytically different perspectives - by-sector or by-occupation distributions - are complementary in explaining the development of the information sector in Poland (and elsewhere). Since the information sector crosscuts the traditional three economic sectors - agriculture, industry, and service - assessing the



In 1999 information jobs accounted for only 3% of those employed in the agriculture sector

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percentage of information jobs in each of them offers a basic indication of how this sector is developing in Poland. Data from the Polish General Social Survey, conducted from 1992 to 1999, are well suited for calculating these percentages. For all data during this period, information jobs show a 3% distribution in the first sector, 18% in the second, and 79% in the services sector.

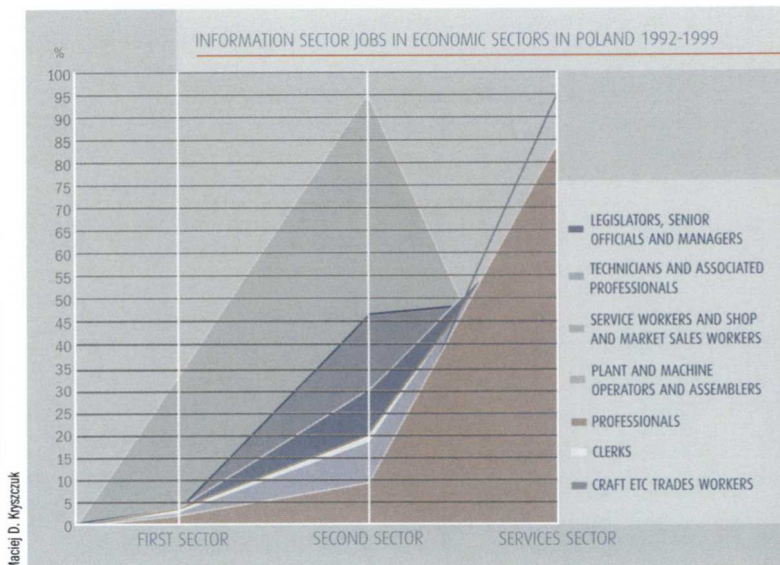
### The job-based concept

Most sociological definitions of the information sector assert that certain occupations primarily entail the manipulation of symbols, either of a high intellectual content (e. g. professionals) or at a more routine level (e. g. clerks). This means that information jobs are not identical with white-collar jobs or hi-tech jobs, but should be seen as situated within many different occupational strata: from professional and semi-professional to clerks and even blue-collar workers. By definition, the information sector consists of those jobs in which the recording, processing, or communication of information constitutes a core segment of people's work duties and time.

Referring to findings from studies by Marc Uri Porat (1977), the most useful conception of the information sector is based on an arbitrary selected category of "information occupations". Following this lead, in a recent study carried out in Poland by the International Standard Classification of Occupation (ISCO), nearly 250 detailed occupational job-based descriptions were selected, which conform to this notion of "information occupations" and represent the seven general occupational groups: legislators, professionals, technicians, clerks, service and sales workers, craft and trade workers, and operators and assemblers.

According to data from all respondents who reported their occupation, the information sector was continuously on the rise during the period under consideration - from 35.9% in 1992 to 38% in 1999. The rate of increase was statistically significant, albeit small. Decreases noted in the technician and clerk occupations during the same period did slow this growth trend. Besides this, however, the occupational structure of the information sector in Poland has been following a path similar to developments in many other countries. The occupational breakdown of the information sector has changed over time. In this period, the most spectacular increase was seen in the stratum of legislators, senior officials and managers (from 2.4% in 1992 to 7.1% in 1999). The category of professionals also grew from 5.3% to 6.9%. Relatively speaking, a decline was seen mostly with respect to technicians (from 12.1% in 1992 to 7% in 1999) and craft workers (from 2.1% to 1.7%).

As the information sector has expanded, it has taken on many characteristics of society at large: it is clearly differentiated according to gender, education, and income. For example, data suggest that women represent 66% of the sector as a whole. They are under-represented in the legi-



slator and managerial strata (33%) and in the crafts category (30.7%) and over-represented especially among clerks (82.3%) and service workers (79.3%). Furthermore, working in information jobs signifies a higher average education (1.5 years of schooling more on average) than employment in non-information jobs. The fastest educational growth was seen in the stratum of assemblers and operators - from 8 years in 1992 to 9.8 in 1999. During the period analyzed, legislators, senior officials and managers were at the top of the income hierarchy. Nevertheless, data show that the gap between this group and the other categories has continuously narrowed.

Based on the occupational method for estimating the extent of the information labor force, it has been estimated that about 38% of workers in Poland were employed in the information sector in 1999. The percentage of information occupations varies by sector of the economy. Among those people who had an information job, about 3% were employed in the agriculture and forestry sector, 18% in the traditional industry sector, 38% in traditional services, and over 40% in the so called information industries, such as finance, administration, communication and media. This demonstrates that the economic sector perspective and the occupational structure perspective for measuring the scope of the information sector relate to different aspects of the "informatization" process. So, they must be perceived as being analytically different, and applied in complementary fashion in explaining the development of the information society. ■

#### Further reading:

- Dziuba Tadeusz Dariusz. 1998. *Analysis of the Possibilities to Discern and Diagnose the Information Sector in the Polish Economy (in Polish)*. Wydawnictwo Uniwersytetu Warszawskiego.
- Kling, Rob. 1990. More information, Better jobs? Occupational Stratification and Labor-Market Segmentation in the United States' Information Labor Force. Appears in *The Information Society* Vol. 7, No. 2 (1990) 077-107.
- Porat, Marc, Uri. 1977. *The Information Economy: Definition and Measurement*. Department of Commerce, Office of Telecommunications, Special Publication 77-12 (1) vol. 1-9. Washington D. C.