

Bringing home the technology

from Richard Pearson

New technology is now enabling more people to work from home rather than in the traditional workplace.

EMPLOYMENT and working patterns are constantly changing in response to economic and social and technological developments. In the United Kingdom, the recession of the early 1980s has been seen as a watershed in terms of patterns of working, with employers restructuring their workforces and making greater use of temporary and part-time staff.

Since 1983, the main areas for new employment have been for part-time work, where there has been an increase of more than 300,000 jobs, and self-employment, where the number of people has also increased by over 300,000 to total over 2.5 million. Self-employment has been helped by employers, who are increasing their sub-contracting of work activities such as catering, transport and legal work to concentrate on what they are good at. New technology, in the form of cheaper telecommunications and computing, is also enabling more people to work from home, again showing more opportunities for flexible employment patterns.

In theory, the technology offers the opportunity for vast numbers of office-based



workers and others to carry out their work at home using computer links. Jobs in computer programming, word processing, accounting, statistical analysis and management information processing are all amenable to distance working. In the United States, AT&T estimates that up to half of its executive jobs could be carried out from home by 1990, while in San Francisco it has been estimated that one in five commuters could stay at home to work. But such distance working need know no boundaries. American Airlines moved its data entry operation from Oklahoma to Barbados in the West Indies, where 200 keyboard operators now process tickets, using a satellite link to receive the work from the US data-processing centre. Another US company with a similar operation claims "we can do the work in St

Michaels, Barbados for less than it costs us to pay for the floor space in New York". Yet another company flies its paper work to Singapore, where it is keyed in, and then beams the finished work by satellite to its data-processing centre in Australia.

In the United Kingdom, homeworking is not new; cottage industries in light manufacturing and clothing have been around for generations, although such workers are now a minority of the "homeworkers". Much more common are white-collar workers doing clerical work, or working in occupations such as selling or writing where the home is used as the base. There are estimated to be more than 650,000 homeworkers in the United Kingdom.

There are now a number of initiatives in the United Kingdom aimed at allowing and encouraging traditional office-based professional workers to work from home, becoming the 1980's homeworker or "teleworker". The largest and longest running is the operation of 'F' International, a computer consultancy which employs some 900 people, predominantly women, to work from their homes. The staff, computer programmers, systems analysts and project managers, take on assignments for clients of 'F' International and operate as high-tech cottage workers, working in part from home and in part in the clients' premises. A small core of permanent staff organizes and manages the work, but the 800 or so self-employed workers are able to combine domestic flexibility with a career. They are of course aided in gaining regular work to fit in with their own availability by having skills in short supply.

Another scheme that has attracted a lot of publicity is that started by Rank Xerox, which has cut the number of staff employed in its expensive central London offices. Originally some 20 staff, mainly managers and professionals, were helped to hive themselves off from the company and to sell their services back to Rank Xerox instead of being employees. As well as being paid special bonuses and provided with training and low-cost equipment, the "networkers" as they were called, were guaranteed two days' work per week at consultancy rates for two years. The company saved significant sums on office rental and services, payment of support staff, canteen facilities, pension, company cars and the like. It also

freed itself of a long-term commitment to employing those staff. The networkers gained a sheltered transition to self-employment and starting their own businesses, and flexibility to work in the way they wanted. Many have been able to achieve much higher levels of output, without for example the interruptions of working in a major office complex, and thus to boost their earnings. Other companies also have hybrid schemes of networkers, freelancers and teleworkers although the technology, other than the telephone, has assumed a less important role than many had first imagined.

There are of course problems. Many people look to the work place to provide social interaction and a structure for their lives, and not all homes and families' lives are conducive to working at home. There is also the uncertainty for the individual in working in a new and uncertain way. For the employer, there are new skills to be acquired in "managing" such people and setting payment systems where it is difficult to measure the output. With a traditional employee, this is easier because the relationship is one of buying the individual's time for, say, forty hours per week.

The productivity gains benefit both sides, and while the individual gains flexibility of working pattern the employer gains flexibility over controlling labour inputs and transferring many of the overheads and "risks" to the individual. The homeworkers gain most when skills are in short supply, and if the pattern is to develop in the future a key issue will be "who pays for the training and development of new skills as they are needed?"

Distance and homeworking will increase in the future as more workers and employers seek part-time and flexible employment relationships. The increasing numbers of women seeking work, and the shift away from manufacturing-based employment to services will also facilitate this trend. The rate of expansion will probably not, however, be as quick as some of the publicity suggests. While the lower costs of technology will aid the process, economic and social factors will be the prime determinants of its development, while the main beneficiaries will be those whose skills are in scarce supply. □

Richard Pearson is at the Institute of Manpower Studies, Mantell Building, University of Sussex, Brighton BN1 9RF, UK.