

Chapter 5

Work, Society, Family and Learning for the Future¹

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Introduction

Historic changes are transforming our everyday lives and are likely to transform schooling in the future. The transformation of work and employment under the impact of the information revolution and the globalisation of the economy have produced a major strain in the relationship between work and society. Though rooted in a common pattern of technological change and institutional rigidity, it has taken substantially different forms in Europe, the United States, and Japan, shaped by cultural contexts, business strategies and government policies. At the heart of the problems is the inability of social and economic institutions to adapt to the new, informational patterns of working in contemporary societies.

Changes in work and employment profoundly affect the network of institutions on which our societies are based: family, community, and the state. The difficulties experienced by these institutions amplify the problem and worsen its social impact. There is now need for a general overhaul of the relationships between work and society beyond piecemeal remedies and short-term policies. But, within these changes have been created the bases for reintegrating the individual into productive, more egalitarian social structures: *knowledge and information*. Knowledge and information have always been important, but they have become a primary commodity of exchange in the new global environment and will be at the core of the 21st century society.

Given their centrality, that there is a critical role to be played by learning, education and schooling is obvious. There is a crucial additional role for schools to play as key community institutions in societies that have lost so many of their traditional sources of social interaction. This chapter describes the crisis of the relationship between work and society, and then presents current problems and

future solutions in the three key institutional settings: work, family and community. In each case, the learning and schooling implications are discussed. The chapter concludes with discussion of the particular part that government can play in addressing these issues.

Crisis in the relationships between work and society

We are witnessing the reversal of the trend towards salaried employment and socialisation of production that was the dominant feature of the industrial era. This amounts to the radical transformation of work arrangements in advanced societies. More intense competition on a world wide scale makes firms acutely aware of costs and productivity. Their “solution” to this has been to re-organise work around decentralised management, work differentiation, and customised products – individualising work tasks and differentiating individual workers in their relationship to supervisors and employers. This has made sub-contracting, part-timing, and hiring temporary labour much easier, since so much of work can be narrowed down to specific tasks, even as other “core” activities are multi-tasked and conducted in teams. Income profiles over work lives are becoming flatter, even for highly educated workers. And, wage labour is rapidly feminising, with enormous implications for the way work and families is organised.

The crisis does not take identical forms in all parts of the industrialised world. Europe as a whole still faces serious unemployment² and US-style deregulation has attractions as a means to resolve it. But, deregulation has serious downsides, and the United States is characterised by particularly marked inequalities and intense pressure to work. It could even be argued that its efficient “job creation machine” has created increasing numbers of dysfunctional families, individual stress, and deteriorating communities. Japan has in the past been highly successful in achieving rapid economic growth with full employment and low inflation by means of a “neo-corporatist” macroeconomic policy that brings labour and large industries together to agree on wage and price increases. But even Japan has been in the grips of recession, rising unemployment, and increased competition; its society and system are suffering a malaise from which it is still to emerge.

Worldwide, these changes are profoundly altering the way we live and relate to each other and the role of knowledge and information in work and personal interactions. A major force behind these changes is economic globalisation and the intensified competition it brings. A country's investment, production, and innovation are no longer constrained by national borders. Even our cultures are globalising. One effect is that activities, including how we relate to our family and friends, are rapidly becoming organised around a much more compressed view of space and time. This extends to children in school or watching television who are re-conceptualising their “world”, in terms of the meanings that they attach to

music, the environment, sports, or race and ethnicity. Our lives are being transformed by a massive diffusion of new information and communication technologies.

The second major force behind world-wide social change is the rapid transformation of family life, driven in turn by a profound revolution in the social role of women. They have gradually rejected “going it alone” on social cohesion. Smaller families earlier in the 20th century buttressed social cohesion, gave more time for community building, and allowed women to create a social life for themselves outside the family. But since the late 1960s there has been a profound shift in gender relations in family and work. Divorce rates have soared, first in the United States and then in all but a few developed countries. Masses of married women have come into the workplace, part-time and then full-time. The family can no longer be assumed to reproduce labour and knowledge as it has in the past. We cannot even assume that new family arrangements will produce *enough* labour.

While the individualisation of work undermines the importance of one of the most important social agencies in our life, *the workplace*, not all aspects of the changes are experienced negatively. The resurgence of the individual, with greater freedom and self-directed initiative, frees people from bureaucracies and from the often-excessive constraints of workplace relationships. But these can only be enjoyed if alternative forms of social organisation provide a web of social relationships that can serve as psychological support and a basis for interaction. The industrial revolution disassociated residential communities, workplaces, and social life, in an historical movement that classical sociologists such as Durkheim characterised as the substitution of “organic” for “mechanistic” solidarity. With the loss of the social relevance of the workplace, and of work-based forms of social organisation, a greater demand is placed on other forms of sociability.

Local communities and voluntary associations are foremost among such forms. Evidence in advanced societies, however, points to a possible serious erosion of membership in voluntary associations, as a result of individualistic values, time constraints, and dual-job families (Putnam, 1995). As for local communities, whose resurgence as social networks could provide a useful compensatory mechanism to individualism, urban research has also shown their limits and contradictions. By and large, residence-based communities have tended to fade away as forms of social interaction and collective undertaking in advanced societies. Could they be replaced by “virtual communities” organised around electronic interactive networks, as some envision (*e.g.* Rheingold, 1993)? Scattered observations from France and the United States suggest that such “virtual communities” may be only ephemeral forms of social relationships, except when they are anchored in professional activity or become the extension of family/friendship networks. Although it is still too early to assess the long-term significance of emerging forms of interactive electronic communication, it is likely that it will reinforce existing social networks rather than substitute for them (Benson, 1994).

The *family* could be the social institution to temper the stress induced by the processes of desegregation of labour and the individualisation of social and economic life. In times of historical transition, the nurturing effects of family life can be critical for psychological support, social stability, economic security, and creative socialisation. The social disintegration and economic distress induced by unemployment and of the shrinkage of the welfare state have been attenuated in a number of countries by strong family structures.³ For families to offer the fundamental mechanism through which the transition towards new forms of work and the de-institutionalisation of social protection can operate, it has to be redefined and strengthened under the new cultural and technological conditions. Not all societies have strong families, and it is unclear that even those that do will maintain them given current social trends. More will be needed as policy support than simply invoking family values if they are to survive the shocks of deteriorating living conditions, lack of child-care, stressful dual workdays, long commuting hours, and downgraded schools.

Work, networks and learning

While the transformation of work and employment has resulted in a crisis of their relationship with society, it has also created the bases for reintegrating the individual into highly productive, more egalitarian social structures. These bases are *knowledge* and *information*.⁴ The distinguishing feature of work in the information age is the centrality of knowledge, especially “transportable” general knowledge that is not specific to a single job or firm. The best jobs are those that require high levels of education, call for extensive general knowledge, and provide opportunities to accumulate more knowledge. The best firms are those that create effective environments for teaching, learning, and interchanging information. It is knowledge and information that create flexibility in work – the capacity of firms to improve product lines, production processes, and marketing strategies, all with the same workforce. It is these which enhance the capacity of workers to learn new processes, to shift jobs, even vocations, over the course of a work life, or to move geographically.

In the new knowledge economy, characterised by *flexibility* and *networking*, there is a premium on a worker's ability to move from a job in one firm to another, to learn new jobs in the same firm, to do different types of tasks in the course of the day or week, and to adjust quickly to diverse employment cultures and group situations (Capelli, 1993). The firms that promote and reward such flexibility tend to be the more successful (Derber, 1994, pp. 15-18, 107-108), creating yet greater demand for workers with these abilities. At the core of high productivity work in the information age is the complex interplay between more educated and flexible workers and best-practice firms.

Best-practice workplaces are *learning organisations*. New technologies, including the art of flexible organisation itself, make their maximum contribution to productivity when they are based on learning and teaching as an inherent part of the work process. The new compact between company and worker de-emphasises paternalistic relations in favour of self-reliance and co-operation. Management has to give up some power over decisions in order that employees have more; networking firms also have to give up some control over information in order to share in other firms' knowledge. Learning is accumulated in these arrangements, permitting innovation, the more productive uses of resources, and lower costs of production. Indeed, much of the new technology developed in firms, as they develop/improve processes or products, is the result of accumulated learning (Dosi, 1988; Rosenberg, 1982).

More knowledge and information do not, in themselves, create more jobs. Yet, a society organised around learning networks provides the basis for much higher productivity, greater equality, and the reintegration of individualised citizen-workers. Over the longer run, this pathway will create greater wealth and income, generate more or higher quality jobs, transform the nature of leisure, and develop the re-integrative activities that make life interesting and rewarding. Future working and employment policies will need to be organised around the *employability* of individuals and families, not permanent jobs. The social well-being that all democratically-elected governments aim for will depend as much on how well workers, individualised by flexible work organisations, are integrated into such learning networks as on the annual increase in the number of jobs.

Implications for education and the organisation of learning

As learning becomes the new focus of work in the information age, traditional concepts of education must change. The workers that do best in flexible, learning organisations are good both at solving problems individually – the higher-order skills normally learned by students going on to post-secondary education – and, as important, at group-working to innovate and motivate. The latter is a skill that is hardly touched upon in our present educational system, a rare example when co-operative skills are fostered is in management courses. Indeed, learning networks require workers to have a “management mentality”, including knowing how to motivate individualised fellow workers to apply their knowledge for maximum efficiency and quality, and to learn – and teach others – how to do better (what might also be described as “people skills”).

If education is to develop higher-order problem-solving skills *and* competence to be able to organise more learning, it suggests profound change in school curricula and in job training programmes. Standard forms of vocational education – specific skills for specific jobs – become largely outmoded, except insofar as

they are effective in imparting problem-solving and organisational skills to those otherwise alienated from more academic programmes (Stern *et al.*, 1995). School learning should itself be co-operative in form – studying, learning and being assessed as groups. The curriculum should actively include the development of networking, and of motivational and teaching skills. In the information-age environment, the processes of, and motivations for, learning should become endogenous to curriculum itself.

General education during youth should be viewed as only the *beginning* of the learning process. In the past, young people went to school, got a job, which they often then did for much of the rest of their lives. In the information age, the worker is no longer defined in terms of a specific job but of accumulated learning and the capacity to apply it to different situations, within and outside the traditional workplace.

There remains the problem of ensuring reasonable-paying jobs for all those who want them. Nor does more education necessarily create new jobs, as seen in Europe. Without specific action to incorporate the young into the jobs, the result could simply be rising educational attainment levels among the unemployed. Nevertheless, keeping young people in school longer in itself holds advantages. It delays entry to the full-time job market, and it provides employers with a better educated and more flexible, trainable, employable, and potentially productive workforce. That workforce is more likely to view further education as a natural part of their working/learning lives later on if their initial school period has lasted longer. Together with best-practice workplaces organised around training and learning, this positive attitude sets the stage for higher productivity and lower unemployment in the long term. It can be the foundation for successful apprenticeship programmes, other school-to-work transition programmes incorporating job-site training, and national service experiences connected to work/training internships.

Perhaps the most difficult, but necessary, transformation for OECD countries is to organise schooling around *universal post-secondary education* that imparts self-reliance, rapid adjustment to change, and mobility. To now, educational systems have not only a manifest role of imparting cognitive knowledge and skills, but a latent one as social selectors (Bourdieu and Passeron, 1970; Carnoy and Levin, 1985). This may have worked reasonably efficiently in hierarchical industrial systems, however inequitable the outcome. They were stratified but could provide reasonable security and increasing wages even to those with basic education. Today, such stratification is socially counter-productive yet the systems that certify it remain largely untouched. Youth with only secondary education is increasingly at risk in the labour market, as both the education system and employers regard them as inadequately prepared for the higher-skilled, flexible jobs. To change this

means to enhance expectations and compress the distribution of education by raising the social minimum.

Education and learning are not only central to employment in the information age but also to the family and community. These are examined in the next two sections.

The family and household

Far from losing its fundamental importance to work, the family will be even more crucial as the economy shifts to flexible, knowledge-based production. Its role is already changing from a “family consumption partnership” to a “household investment and production partnership”, given the inherently close relationship between family and work and women’s changing social role. What is new – and rarely discussed in analyses of the changing work system – are the potentially ruinous implications for the development of highly competitive yet socially stable knowledge-based societies should families not emerge reconstructed and healthy from the current transition. Learning, and investment in it, are at the heart of revitalised family structures.

In a seminal study, Young and Willmott (1973) characterise the family as having passed through three historical stages. *Stage 1* was the “family as production unit”, with all members working in the home/farm/small-scale home factory production. In *Stage 2*, this home-centred family broke down, with disastrous consequences particularly for women. Both men and women (and children) were employed outside the home, but when there were young children, women could not work and men controlled income. In *Stage 3*, the smaller family of the end of the 19th and early 20th century slowly led to married women going back to work after the years it would take to get all the children to around working age. The family increasingly became a centre of activity for men as well as women, they forming a *consumption* partnership around the home and the family. This stage reached its high point in the 1950s and 1960s, and gives us the model for the “traditional family” that conservatives are so often nostalgic for.

Young and Willmott, however, missed key aspects relating to the *Stage 3* family. It has not only been a unit of consumption but also one of *investment*, especially in its children so that they could earn more than their parents and move up the consumption ladder. This investment role became increasingly important in the post-World War II period. A priority for welfare state support for families was to maintain and enhance the family’s investment role in producing ever more productive labour for the flexible, competitive economy. By the 1980s, with flexible production patterns and the increasing importance of education in determining access to high-paying jobs, such investment became even more important. As it became commonplace for both parents to work even when the

children were young, they came to consume all kinds of services that were only available to higher income families in the past. In the best of cases, such services embodied important investment components. In Europe and Japan, child-care, pre-schooling, and especially health care, are provided by the state and subsidised precisely because of concern to support the family's investment role.

Family life and conditions vary widely between America, western Europe, and Japan. In Japan, the traditional family is still the norm. Women often accept a subordinate status as caretakers, providing a cushion for the labour market as many are part-timers without career perspectives and helping men's professional transition towards new forms of employment (Kamo, 1990; Nomura *et al.*, 1995). In Western Europe, participation of women in the labour force has substantially increased in recent years, but the network of supportive state institutions (accessible day care, good public schools and local transportation) and the persistence of family connections still tend to allow the family to play its supportive role. In contrast, the American family is in crisis, despite the value placed on it in the public mind. One quarter of US households is single. Only about another quarter of households corresponds to the classical married-couple-with-children model. The fastest growing household category is single-parent families, particularly those headed by women. At the same time, so much child-care is of such poor quality that it risks children's development. In some ethnic minorities, the crisis is deeper still, playing a major role in perpetuating the underclass status of a significant segment of the minority population (Wilson, 1987).

The crisis of the American family may seem extreme compared with other countries, but it may also presage a trend. In spite of its positive effect on the overall human condition, the transition towards more egalitarian forms than the patriarchal nuclear family also accentuates the crisis of work. If we add to this the growing cultural trend towards individualistic values in all societies, the already-visible American crisis may well be replicated elsewhere in the not-so-distant future. However, the combined effect of flexible production, women's determination for greater equality in the family and labour market, and the increased importance of the family as an investment unit, have not only eroded the *Stage 3* family. They are now shaping the emergence of what could be the next stage of family life, and one that has learning at its core.

Learning and education decisions within families and households

In its ideal form, we envisage the family as an "investment-production partnership". Because the quality of upbringing has increased implications for future productivity and employability of the labour force, the investment choices made, and guidance offered, by the family are crucial to society's future. Since parents will spend much of their time working outside the home, the services available to

them to invest in their children will be key to how well the family does in its child-rearing role.

There is a second part to the partnership that distinguishes it from the *Stage 3* “consumption family”. With two members of the family earning income, there can be periods of time when one is taking additional education or training, while the other earns; one member can also be the main support with employment income while the other starts up a business from home. In increasingly isolating social structures, families continue to be a source of psychic reward, as well as a site of increased stress. Whether psychic reward or stress dominates depends largely on the availability of community and state support networks. This is the subject of the next section.

The family in a flexible work system is therefore a central hub of productive and reproductive activity. When it is strong, it serves to hedge against the risks of unemployment. It can provide a source of child development for its offspring, of investment capital for adult and child education and job training, and of personal security and growth. Networked into larger information and communication systems, it can also become a production unit. Rather than just income, the main commodity of exchange in fixing and maintaining the variables of this family relation – the duration and the quality of the marriage, divorce, the number and the timing of the children – should increasingly be expressed in terms of learning. This commodity of exchange should be the opportunities available for adults and the capacity of the family to provide learning for children.

The high probability of single parenthood for women clouds the gender decisions around educational investment, both for adults and children. Young people are marrying later than their parents, largely because of the much greater labour market uncertainties. The greater possibilities of divorce and single parenthood for women also influence this choice; they feel compelled to take more education and develop a career precisely because, once married, their education/training opportunities decline relative to men. Divorce and single parenthood also play an important role in the investment in children. Not only is less income available to the single-parent family, particularly if the other parent does not pay child support. But it is much more difficult for one parent to provide the same kind of time, and to have flexibility in work and adult learning, as in a two-adult family.

The intense emphasis on learning as a commodity of exchange has already occurred in upper middle-income, highly educated family situations, where women are choosing to establish careers (achieving higher levels of education and taking jobs with high levels of learning opportunities) before having children. Such learning-driven behaviour as a dominant force shaping family formation, now more limited to educated young people sensitised to the implications of flexible labour markets, is spreading to the rest of the population and may well continue to do so.

The reconstruction of community in the information age

As the workplace loses its central position in the information age, it becomes imperative for other spheres of social life to become supportive of integration, interaction, and human development. Historically, communities structured around the place of residence have played this role. Contemporary conditions of urbanisation and the transformation of sociability, however, have considerably reduced the integrative potential of neighbourhoods. Spatial development in the last quarter of the century has been characterised by widespread territorial sprawl (Garreau, 1992; Dogan and Kasarda, 1987). The functional separation between residence, work, and urban services, the increasingly lower density of new urban forms, and increased geographic mobility have made it increasingly difficult to build social communities on a neighbourhood basis (Fischer, 1984).

There are, of course, community organisations throughout OECD societies. But, research suggests (*e.g.* Castells, 1983; Borja, 1988) that many of these are defensive and parochial in character. They might well be described as agents of “collective individualism”, oriented towards the preservation of the status quo in their neighbourhoods without much weaving of the fabric of supportive social relationships.

It is possible, and indeed necessary, to reconstruct communities, and to link them with the processes of flexible production, as one important means of rebuilding relationships between work and society. This means starting from the current state of existing communities and the extreme individualisation in the uses of space in order to design strategies adapted to contemporary technological and spatial characteristics. It is no easy task to preserve street life and encourage the public uses of space, even though these are stated goals of most cities. French policies have shown, however, that cities can be revitalised: neighbourhood feasts and public cultural celebrations staged by the city of Paris in recent years, have had substantial impact on the willingness of Parisians to use their beloved city. Rome's anti-crime programme is based on the simple idea that streets filled with people and activities, including in the evening, will be relatively safe, while empty streets encourage crime, deteriorating urban sociability further in a vicious circle. Thus, theatre, music, and youth festivals may well prove to be more effective forms of fighting crime than resorting to an over-worked and overwhelmed police service.

The re-conquest of public space is not enough. Neighbourhoods need to build institutions of sociability and self-reliance. Recent experiences with social services and community centres are not encouraging. They are instruments of social work and counselling, but hardly sites of stable social networks. The reconstruction of community also requires active, innovative local governments, based on decentralised resources and power. Local governments in Central-Northern Italy, or Germany or Catalonia, for instance, have taken major responsibility for connecting local life and the collective conditions for new economic development.

Local centres for training, information, productivity development, and management counselling have been critical in revitalising a flexible network of small and medium enterprises. By so doing, they have also revitalised the local society.

The central role of the school in revitalising neighbourhoods

Without precluding the positive role of community centres in some cases, the central organising point in our society at the neighbourhood level is *the school* – elementary and secondary, as well as child development centres. Because schools' location patterns are pervasive and residence-based, and because sociability is made easier through children's connections, schools could become the platforms for a variety of neighbourhood issues. They could provide the material support for the formation of networks of solidarity between families of different types, all concerned with the future of their children. Children could thus act as the fulcrum around which family, community, and the future worker (the child) are brought together in a system of interaction, blending instrumental goals (child-care, development and education) with expressive, emotional, and social interaction. This requires an effort, both from government and from society, to transform the school, to make it more open to the community, and accordingly, to provide the public school system with better trained personnel, more resources, better physical facilities, and more innovative management.

Through the school, other social networks organised at the municipal level could come into contact with each other. For instance, the Municipality of Bologna has developed an interesting experience of social exchange between classrooms and associations of the elderly. Groups of children and of elderly adopt each other. The older people visit the school, tell their stories, thus transmitting oral history, while also baby-sitting children when their parents need such services. The individualisation of society, which gradually phases out the traditional role of grandparents in socialisation, could thus be counteracted with the organisation of inter-generational networks on a local basis. The education of the new generation would be more strongly rooted in an historical perspective and this will be especially important for the informational worker of tomorrow.

The development of electronic communication also offers the possibility of creating virtual communities, in a new form of spatial organisation, that Castells (1993) has called "the space of flows". At the historical beginning of this process, in the 1990s, such virtual communities are highly elitist and restricted to the most educated segments of the population and to the age groups that are culturally inclined to the daily navigation of "the net". Without recourse to science fiction fantasies, it is conceivable that in the early 21st century this form of communication could offer a platform for greater political participation and closer social interaction. United States evidence seems to indicate, for instance, that people are not

very interested in paying more to select among hundreds of films or shows available on line, while in fact they are strongly attracted to the possibility of enhancing their information, education, and participation in public affairs (Tiller, 1994). The use of interactive, electronic communication to reconstruct social networks without depending on physical proximity, is indeed a new frontier of public policy and private initiative that deserves to be fully explored and exploited.

The key role of the state

The state as knowledge and information intermediary

The welfare state is in general in trouble financially, and seemingly unresponsive to the major economic and social changes taking place. Yet, the state is crucial to the building of new networks and to do that, it will have to reorganise and recast priorities. Because different societies have different tolerances for state activities and regulation, how it does so will vary from country to country. Such variations notwithstanding, the reorganised “knowledge and information” state would have several fundamental commonalities:

- It would focus a great deal of its activities on the nation’s educational, training, and informational infrastructure.
- It would focus more government spending on support for families as centres of learning and production, rather than as consumption units.
- State spending and programme control would be highly decentralised, with many government services delivered by states, provinces, departments, and municipalities.
- Within the traditions of each country, the state would develop “solidarity” economic and social policies, focusing on equalising learning, employment, and self-employment opportunities for across population groups and regions. These would include income transfers, particularly in terms of who pays for particular learning and employment programmes.

OECD Member countries confront major constraints on their ability to reorganise their capacity to raise revenue, for instance, and their room for manoeuvre in shifting spending from present activities to those that would develop knowledge and information networks and a learning society. The political path to effect a shift will be easier where the state already enjoys legitimacy as a mechanism of social leadership and change – compare, for example, Northern Europe and Japan with Italy and the United States. But the successful transformation in all countries lies in making consistent choices that moved them away from the predominance of service delivery towards a society organised around learning and more equal access to knowledge and information.

The state is the main provider of formal education in every advanced industrial society. Even in the United States, the large majority of post-secondary students attend public institutions. In the information economy, the state will need to expand this role, to give a higher proportion of young adults the chance to acquire professional and semi-professional degrees, and of older individuals the possibility to attend university and earn degrees during their working lives. Although improved and expanded education is probably the single best policy for governments to pursue to sustain more flexible production, a human resource strategy works best in the context of a state that takes an active role in building capacity at the local level to make lifelong education a community effort and to integrate individuals into community, national, and global networks.

Governments will continue to play a key role in preparing youth and adults for the workplace and in ensuring that information with high social benefits is widely accessible. They will also have to take responsibility for promoting more job training in private firms and for increasing young people's access to it. Public service programmes for young and old (including military service), may, in some countries, serve as major training and apprenticeship organisations for a wide range of occupations, especially for those young people with low levels of education. Municipal governments should provide training and marketing services, perhaps tied into local community college resources, for small-scale entrepreneurs who want to start their own businesses and need market and financial information. And, municipal and provincial governments would be strategically placed to build networks between public educational institutions, public and private community service organisations, and private firms to develop integrated work systems for higher productivity.

State support for the household partnership

The integration of households into learning networks is the linchpin of a flexible, knowledge-based work system. State family policies are fundamental to this integration, in providing a sufficient scale of material resources to support household investments in its members along with necessary political accountability. Policies need to enhance the household partnership's capacity to invest in learning without interfering in the privacy of its decisions. They can do this by a number of means: helping the family acquire education for its children even as parents work flexible schedules; giving parents new possibilities to take further education and training themselves; guaranteeing access to health care when family members are unemployed or studying; providing training to youth, prospective and existing parents on child care and development; providing fiscal incentives to reward families that invest in education; strictly enforcing laws to ensure that parents, whatever their domestic/residential arrangements, contribute financially to the support of their children.

Knowledge acquisition depends heavily on early childhood development, and early childhood takes place in families. Those OECD countries that have been especially conscious of the welfare of children of working parents provide extensive opportunities for high-quality, subsidised day care. For instance, in the Nordic countries, France, and increasingly in Japan, family policy is a high priority and “day care” is state-organised around well-trained, certified teachers specialised in early childhood development. Going further still, child development centres are key to meeting the household’s need for parents’ job flexibility and young children’s enriched learning. They are an expensive option, and, as in the case of higher education, parents who can afford to pay should do so. But, access must be on an equal footing. Otherwise, as too often happens now, the outcomes of the market model are highly unequal which is the opposite of what a flexible, knowledge-based society needs for sustained development. High quality health care needs to be assured for all children from the pre-natal phase onwards; again, the state role is critical. And, major investments should be made in education regarding the responsibilities and skills of parenthood.

Beyond early childhood development, governments need to make schools community learning centres, where parents can leave their children in a learning environment during the time they are at work or education, including during the school vacation period. The community learning centre should also be places where parents and seniors can come to engage in learning activities, whether related to their children’s education or to other adult activities, including community-run business courses for the self-employed.

Currently, parents are supported fiscally in Europe and the US through family income entitlements, tax deductions for dependents, and welfare for mothers with dependent children. In the knowledge economy, fiscal incentives should more be tied to investment in education and training rather than simply to having children. Tax deductions for the costs of children’s college education and for adult training are a step in this direction; similarly, deductions should be allowed for children’s pre-school and parents’ education toward a degree.

The focus on state support for families through education and training investment tax credits and the direct provision of high quality early childcare also suggests that the state needs to reconcile the way it views and delivers education. Local educational institutions – from primary and secondary schools to community colleges and universities – are the logical sites around which the state can build all-day, all-year, cradle-to-the-grave learning networks for households to hook into. These institutions will have to evolve to meet the varying needs of different communities. In low-income communities, for example, the need for full-day children’s education and adult learning opportunities may be far greater than in high-income communities. The allocation of resources should be responsive to these differences. Educational systems are likely to have to become more all-encompassing to serve

as a “public family” and a “community” as part of their expanded role in reintegrating workers and the children of lower-educated families more successfully into society and into flexible, knowledge-intensive work.

The emphasis on local governments must certainly be accompanied by mechanisms of redistribution of public revenues to avoid the reproduction of social inequality on the basis of segregated residence. But within the limits of prudence, societies would greatly benefit from a major shift of power, resources, and responsibility to the local level. Strong local government, active citizen participation, and the formation of networks of solidarity and reciprocity around the neighbourhood school are the mechanisms that would help to rebuild community, strengthen the new family, and contribute to educating the future, quality labour force.

State solidarity policies

Unregulated markets are marked by high levels of income inequality, as well as ethnic and gender discrimination (Danziger and Gottschalk, 1993; Levy and Murnane, 1992; Carnoy, 1994). At least part of this is a result of unequal access to learning, a product of family income/education differences and the unequal treatment of children by schools.

Markets also discriminate among ethnic and gender groups in hiring and job promotion. Even were the state to be effective in networking households into learning opportunities, equalising access to educational resources, and encouraging employers to be more equal in their training and pay for different ethnic and gender groups with comparable qualifications, there would still be some proportion of the working age population who would, if left unprotected, be poor. The continued existence of poverty can produce a permanent underclass, with high rates of unemployment, crime and social problems, and dysfunctional learning experiences for children. The state is the only institution able seriously to address the existence of such an underclass.

Equalising learning and reducing poverty represent high return investments for knowledge-based societies. Permanently poor households and communities cannot engage in the kind of learning and teaching needed by workers in flexible production, so, without intervention, they will always be at risk of dependence and alienation. Solidarity policies should be organised around the citizen/learning-worker/teacher rather than the job. Their underlying theme should be the enhancement of individual capabilities universally rather than providing universal entitlements. Most OECD countries provide some form of universal health care cover and public education. Yet, many do not do a good job of equalising access to learning, beginning with the early start in childhood and continuing right through the life-cycle.

Notes

1. This chapter is based both on a paper delivered by Carnoy at the OECD/Netherlands seminar on "Schooling for Tomorrow" held in Scheveningen, Netherlands (April 1998) and on an earlier analysis prepared by Carnoy and Castells for the OECD (*Sustainable Flexibility: A Prospective Study on Work, Family and Society in the Information Age*, 1997). A more detailed analysis of the issues raised in this chapter is developed in Carnoy (1999).
2. Since Europe has an extremely low birth rate, present-day growth rates, should they continue into the future, could easily eliminate today's unemployment problem and replace it with a labour shortage filled increasingly by immigration from Eastern Europe, North Africa, and the Middle East, already well under way. This implies that northwest Europe's income distribution, work intensity, and social problems could become more like the United States' in the next generation.
3. For instance, the mystery of the calm and well-being of Spanish society in spite of such high unemployment rates in the 1990s (with only about 60% of the unemployed receiving unemployment insurance) can be explained by looking at the role of the Spanish family (Leal *et al.*, 1993). The large majority of unemployed are women and youth, who continue to live with their husbands and parents and are supported by them. All are supported by the social security system to whose benefits all family members are entitled because of their relationship to the one salaried worker in the family. Young people, on average, reside at home until almost 30 years old, often under conditions of total individual freedom (Zaldivar and Castells, 1992).
4. Knowledge can be defined as the *cumulated stock* of cognitive skills and information held by each individual, family, and community (including firms) related to the individual that can be applied to work, personal, and social situations. Information is the *flow* of usable knowledge available to individuals, families, and communities, including work-places.