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Demography and the New Economy

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Abstract

The term ‘new economy’ is used to refer to two distinct developments. The first is the increasing importance of pure services, particularly those related to information, and the corresponding decline in the importance of the goods-producing sector. The second is the liberalisation of product and labour market and the resulting decline of institutions like lifetime full employment. Although there are connections between these two developments, their demographic implications are quite different. An information-based economy implies long periods of education, late child-bearing and a reversal of the trend towards early retirement. Labour market liberalisation implies extensive use of redundancy as a tool for labour flexibility and an accentuation of the trend for workers over 50 to withdraw from the labour market. This trend has been sustainable so far because the baby boom has resulted in an increase in the proportion of the population aged between 25 and 54. Within the next decade, this proportion will start to decline. Whereas an ‘old economy’ perspective implies that the aging of Australia’s population will not be a problem for some time, the ‘new economy’ implies that an ‘aging crisis’ could affect the economy in the near future.

Keywords

new economy, globalisation, demography

Demography and the new economy

The idea of the ‘New Economy’ has played a prominent role in recent Australian policy discussions. However, the term ‘New Economy’ is used in different ways by different commentators. In some discussions, the term refers to recent developments in science and technology, particularly those associated with the rise of the Internet. At other times, the main claim appears to be that the economy has become more flexible and dynamic as the result of market-oriented reforms to the domestic economy and globalisation of the world economy.

Relatively little attention has been paid to the demographic implications of either concept of the New Economy. Discussion of the relationship between demography and the economy is focused primarily on the implications of an aging population for the sustainability of welfare state institutions associated with the ‘Old Economy’ of the postwar boom.

The object of this paper is to examine the relationship between alternative concepts of the ‘New Economy’ and to consider their demographic implications. The paper is organised as follows. First, the demographic isses associated with the Old Economy are discussed. Then, two different versions of the New Economy are distinguished, one based on changes in technology and the other on the rise of neoliberal policies. The claim that these phenomena are merely two faces of the same coin is considered and rejected. The main focus of the paper is on the demographic implications of the changes in the labour market associated with changes in technological structure and economic policy. It is argued that the changes resulting from neoliberal policies are the opposite of those required for long-term adjustment to a knowledge-based economy. Some policy responses are considered.

Demography and the old economy

In Australia and other developed countries, the debate over the economic effects of demographic change has focused on the effects of an ageing population and particularly the impact of aging on the fiscal position of governments. An increase of the average age of the population is the natural result of the decline in mortality and fertility referred to as the ‘demographic transition’.

Economic analysis of the effects of population ageing has focused on the concept of the dependency ratio , typically defined as the ratio of the population aged under 15 or over 64 (assumed to be dependent) to the population aged between 15 and 65 (assumed to be of working age). The dependency ratio, as standardly defined is of obvious relevance to an economy in which most people are supported by their parents while they are children, enter the workforce at or near the age of 15 and remain in full-time employment continuously until the age of 65, after which time they are primarily dependent on the age pension for income and on publicly funded services for health care. The same ratio is applicable if the assumptions above apply to males, while females are exclusively occupied in the provision of child care and household services.

If these assumptions are satisfied, and the government seeks to fund pensions and health care for those over 65 on a ‘pay-as-you-go’ basis, that is, out of current revenue, the tax rate required for budget balance will be higher, the higher is the proportion of the population aged over 65. The adverse fiscal effects of population ageing will be offset, but only partly, by reductions in the requirement for education expenditure.

Calculations of this kind played a major role in the deliberations of the Commission of Audit appointed by the Howard government. The Commission argued that, in the light of an ageing population, pressure would arise for increased spending on health and aged care, age pensions and family support payments (such as childcare)[1] and suggested that ‘Action will be necessary to moderate expectations about what support the Commonwealth

Government can be expected to provide' (National Commission of Audit, 1996, p xv). Critics such as Mitchell (1996) argued that the Commission's demographic projections were based on the misuse of worst-case scenarios and that its policy prescriptions assumed that future generations would share the ideological preferences of the Commission.

Mitchell also observed that the measures of the dependency rate used by the Commission could be rendered irrelevant by relatively simple policy changes such as the extension of the retiring age to 70. This observation is worth developing further.

At least as a first approximation, the assumptions underlying the dependency ratio were applicable to the Australian economy for the period between 1945 and 1970. However, as will be argued below, they have now ceased to be relevant, partly because of policy responses to the problem of growing pension liabilities, but primarily because of changes in the operation of labour markets and the economy more generally. Many of these changes have been discussed in connection with the idea of the 'new economy' which became popular in the late 1990s.

Two versions of the new economy

The term 'new economy' is used in two quite distinct ways in current discussion. Particularly since the rise of the Internet to public prominence, the term has been used to refer to the decline in the relative importance of industries producing physical goods and the corresponding increase in the relative importance of services, particularly those associated with information. This is a trend that was evident throughout the twentieth century, and accelerated in the second half of the century as the earlier shift from agriculture to manufacturing was completed.

The term 'New Economy' has also been used to refer to the resurgence, since the 1970s of market forces as the principal determinants of economic outcomes and the

[1] The inclusion of payments to children, which would tend to decline as a result of demographic changes, is an indication of the Commission's ideological bias against public expenditure.

corresponding retreat of governments from policies such as Keynesian macroeconomic stabilisation. The most striking manifestation of the resurgence of the market has been the massive growth in international financial markets. The aggregate value of financial instruments traded in international capital markets is now significantly greater than the value of imports and exports, and this ratio is growing.The Bank of International Settlements (quoted by Baker, Epstein and Pollin 1998, p.10) reports that for the United States, the ratio of cross-border financial transactions to real flows rose from 9 per cent in 1980 to 135 per cent in 1995.. Along with more modest, but still substantial growth in international trade and long-term investment, this phenomenon has been referred to as 'globalisation'. The associated policy framework, sometimes known as'economic rationalism' in the Australian context, is more generally referred to as 'neoliberalism'.

In many popular accounts, the two versions of the 'New Economy' are just the two faces of the same coin. Libertarian writers such as Toffler and Toffler (1994) argue that recent technological innovations represent a 'Third Wave', equal in importance to the 'Second Wave' Industrial Revolution, and that the mass institutions of the Second Wave, including big government, the social-democratic welfare state and large corporations with lifetime employment are technically obsolete. Globalisation, it is argued, is technologically determined, and therefore both inevitable and irresistible.

Similar, though more sometimes more nuanced views are put forward by advocates of the 'Third Way', who claim to transcend what has become a sterile debate between advocates of the free market and supporters of traditional social democracy. The most prominent theoretical advocate of the Third Way is Giddens (1999), and its most prominent Australian supporter is Latham (1998).

More careful analysis shows that the move towards a service and information economy and the resurgence of neoliberalism are fundamentally different phenomena, occurring on different timescales (Quiggin 1999). It is therefore necessary to consider separately these two versions of the new economy and their demographic implications.

The new service and information economy

The first great demographic transition was associated with the move, in the 19th century from an agricultural to an industrial society. Although urban mortality was initially very high, a combination of public health measures and the medical innovations arising from general scientific and technological advance led to a decline in mortality, followed with a lag by a decline in fertility.

Economic discussion of the industrial economy was based on a three-stage model of production in which primary products are supplied as inputs to the secondary sector, predominantly manufacturing. In this model, services are provided by the tertiary sector, which provides the transport, distribution, wholesaling and retailing services needed to deliver goods to their final consumers, as well as ancillary business services such as financial and property services.

For most of the twentieth century, this model remained appropriate even though the relative share of the tertiary sector rose steadily, while that of the primary sector declined. The economy of the 21st century, however, is more accurately described as 'post-industrial'. The shares of the primary and secondary sectors in total employment are shrinking and that of the tertiary sector is static. More than 40 per cent of the workforce is employed in the provision of pure services, unrelated to the sale or distribution of physical goods, and this proportion is rising steadily.

The most important area of long-term growth has been in the provision of services, such as health, education, police and welfare services, which provide social infrastructure for a modern society relying primarily on a skilled, well-educated population. These industries, which correspond to the Australia New Zealand Standard Industry Classification (ANZSIC) divisions of education, health and community services will be referred to collectively as the human services sector. Although there is a mixture of private and public provision of human services, most such services are publicly funded and supplied either free of charge or at prices that bear little relationship to the cost of provision.

Table 1: Changes in the structure of employment: Australia 1966–98

Industrya	1966	1985	1998
	Shareb,c (%)	Shareb (%)	Shareb (%)
Primary and secondary			
Agriculture, forestry, and fishing	8.9	6.4	5.3
Mining	1.2	1.5	1.1
Manufacturing	25.6	18.2	13.6
Electricity, gas and water	2.0	2.2	0.8
Construction	8.5	7.9	7.7
All primary and secondary	**46.1**	**36.1**	**28.5**
Tertiary			
Wholesale trade	}20.6	6.7	6.6
Retail trade		14.6	15.5
Transport and storage	5.6	5.8	4.9
Communications	2.1	2.5	1.8
All tertiary	**28.4**	**29.5**	**28.8**
Pure services			
Personal and other services	}5.9	3.5	4.2
Accommodation, cafes and restaurants		3.7	5.3
Finance and insurance	}6.1	4.5	4.0
Property and business services		7.0	11.4
Education	}13.5	7.2	7.6
Health and community services		8.6	10.2
All pure services	**25.5**	**34.5**	**42.7**

a: Australia New Zealand Standard Industry Classification division or subdivision

b: Proportion of all employed persons employed in industry division or subdivision

c: Fully disaggregated data not available

Source: Calculated from Australian Bureau of Statistics (1999)

The change in the structure of employment can be illustrated using the ANZSIC data for the period 1966–1998. In Table 1, the ANZSIC classifications have been aggregated into primary and secondary industries, tertiary services and pure services. Between 1966 and 1998, the proportion of the workforce employed in primary and secondary industries fell by around 18 percentage points from 46.1 per cent to 28.5 per cent. The proportion employed in the tertiary sector remained static at just under 30 per cent, while the proportion employed in the provision of pure services rose from 25.5 per cent to 42.7 per cent. Despite consistent attempts to constrain growth in public expenditure from the late 1970s onwards, the proportion of the workforce employed in the provision of human services rose from 13.5 per cent in 1966 to 15.8 per cent in 1985 and 17.8 per cent in 1988.

The neoliberal new economy

For the first three quarters of the 20th century, the general trend in economic policy was towards greater government intervention. The ratio of public expenditure to GDP, which had normally been less than 10 per cent at the beginning of the 20th century rose to an average of 40 per cent among the members of the Organisation for Economic Co-operation and Development by the 1970s, with even higher levels common in European countries.

There were several factors behind this growth. In part, growth was due to the fact that the sectors in which government had historically played a major role, such as health and education, were those that grew most rapidly as the economy shifted towards pure services. In addition, the rise of the welfare state after World War II greatly increased the importance of transfer payments such as old age pensions. Finally, the success of Keynesian policies in stabilizing the economy from World War II until 1970 raised the credibility of governments as economic managers.

Two factors brought this process to a halt in the early 1970s. First, Keynesian economic management failed to provide an effective response to the combination of inflation and high unemployment referred to as ‘stagflation’. Second, there was increasing resistance to rising levels of taxation, symbolised by the American ‘tax revolts’ of the

1970s.

Among the consequences of the failure of Keynesian economic management was the increase in international flows of goods, services and capital, commonly referred to as globalisation. By far the most dramatic increase was the growth in flows of capital and financial assets which followed the breakdown of the system of fixed exchange rates and the associated controls on international capital movements. The aggregate value of internationally traded financial instruments is now 100 times as great as the value of imports and exports. By contrast, growth in international trade has been relatively modest, particuarly if trade within the European Union (arguably a single economy rather than a set of independent national economies) is excluded.

The growth in the importance of international financial markets and the widespread acceptance of the idea that financial markets acted as judges of the soundness of national economic policies contributed to the rise, in the 1980s and 1990s, of the set of free-market econonomic policies variously referred to as ‘economic rationalism’, ‘microeconomic reform’ and ‘neoliberalism’. The neoliberal policy program set out by, among others, the National Commission of Audit (1996), included deregulation, privatisation and reductions in public expenditure.

Two faces of the same coin ?

The academic literature on globalisation and related topics burgeoned during the 1990s to a point where even a summary would be beyond the scope of a single article. However, the argument that technological has given rise to a fundamentally new economic and social structure may be traced to Toffler and Toffler (1994).

Toffler and Toffler argue that the shift from a manufacturing-dominated industrial economy to a service economy represents a ‘Third Wave’ comparable to the earlier replacement of agricultural civilisation (the First Wave) by industrial civilisation (the Second Wave). The core institutions of industrial society - the nuclear family, the mass education system, the giant corporation, the mass trade union, the centralized nation-state and the politics of pseudo-representative government, are being broken down by a wave of individual empowerment, in which mass markets will be replaced by products tailored for individual consumers, social conformity will be replaced by individual lifestyle choice and mass democracy will be replaced by electronic 'town meetings'.

Following Toffler and Toffler, the phenomenon of globalisation is commonly claimed to be the inevitable result of technological changes and, in particular, the striking innovations in computing and telecommunications that have taken place since the 1970s. Claims of this kind are often associated with a more general argument that these technologies are associated with the development of a flexible 'New Economy', which will be characterised by rapid growth and the end of the 'boom–bust' business cycle.

The technological explanation of globalisation is popular among those advocates of free-market policies who were formerly socialists or social democrats (Latham 1998, Tanner 1999). If the technological explanation is correct, the social-democratic policies of the long boom were appropriate for their time, but are now out-of-date. It is therefore possible to argue that, in embracing free-market policies, social-democratic political parties are not abandoning a tradition of interventionism and egalitarianism, but maintaining a tradition of supporting policy innovations appropriate to the day.

Despite its superficial appeal, the technological explanation of globalisation is inconsistent with the evidence. The technological innovation central to the argument, instantaneous communication between international financial markets, was introduced with the laying of the Atlantic submarine cable in 1866, which made it possible to transmit messages between Europe and America by telegraph using Morse code. By 1872, the Overland Telegraph connected the major Australian cities with England, and the world.

Moreover, whereas the relative importance of services and information grew steadily during the 20th century, the movement towards greater international economic integration was reversed for the first half of the 20th century. Although trade and capital flows grew more rapidly than total output from 1950 onwards the control over the economy exerted by national governments grew steadily until the economic crisis of the 1970s.

The neoliberal ‘new economy’ is the product of specific economic developments of the last quater of the 20th century, including disillusionment with Keynesian macroeconomics and increasing faith in market solutions to economic problems. These developments could easily be reversed, leading to a resurgence of government intervention in national economies and controls over international capital flows. By contrast, the growth in the relative importance of services and information is a secular trend driven by technological progress.

Contrary to the claims of Toffler and Toffler, the rise of an economy based on information weakens rather than supports the case for neoliberal policies. Information is a perfect example of a public good: as the popular slogan has it, ‘information wants to be free’. It follows that the production of useful information must, in most cases, be subsidised by government. The success of the public sector in creating the Internet, and the failure of many private attempts to commercialise it, illustrate this proposition.

The new services economy and the labour market

The replacement of an industrial economy by a service economy has been accompanied by a fundamental shift in the labour market, to the point where the term ‘labour’ itself is arguably obsolete. The labour demanded by the industrial economy consisted primarily of physical effort, either unskilled or using skills acquired through on-the-job training systems such as apprenticeships. Although technological improvements steadily replaced human effort with that of machines, the basic transactions of the industrial economy remained centred on the physical activities of moving and transforming matter.

By contrast, a service economy relies on ‘human capital’, that is, accumulated knowledge and experience, far more than on physical labour. Moreover, as the role of information becomes more important, demand for generalized cognitive skills and formal abstract knowledge tends to increase. Jobs based on these skills provide substantial benefits from experience. By contrast, the remaining entry-level jobs available to those without a high level of formal education are increasingly routinised and lacking in potential for career development.

As a result, in the absence of offsetting factors, the rise of the service economy is accompanied by an increase in the wage premiums associated with higher levels of education and experience. There is also an interaction effect. The wages of highly educated workers tend to rise much more rapidly with experience than do the wages of less educated workers. Moreover, whereas wages for workers engaged in physical effort tend to peak in early middle age (between 40 and 50), no such peak is evident for educated workers, at least until the approach of retirement (Ehrenburg and Smith 1991, p 319).

In Australia, though not in the United States, growth in the average education level of the workforce has large offset the increased demand for educated workers, so that wage premiums for higher levels of education have remained broadly constant. On the other hand, with an increasing number of educated workers, the average age-earnings profile is likely to become increasingly steep.

Demographic implications

The shift to a service economy has profound demographic implications. Most importantly, the steady increase in the demand for educated and experienced workers implies that young people must spend a longer period engaged in formal education. Whether participation full-time education is accompanied by financial dependence or with financial independence at a relatively low income level, it is generally associated with delays in family formation and childbearing. Hence, the trend towards later childbearing evident over the postwar is likely to continue.

The combined impact of late childbearing and long periods of dependence implies that many parents will have financial responsibility for children for most or all of their working lives. For example, if a woman bears her last child at the age of 40 and that child remains financially dependent until the age of 25, the end of financial responsibility for children will coincide with the current age of eligibility for the old age pension. The ‘empty nest’ syndrome, which was the subject of considerable discussion in the 1970s, is unlikely to be relevant for the current cohort of new parents aged between 30 and 40.

On the other hand, reductions in mortality have implied an increase in life expectancy. The increase in life expectancy in the first part of the 20th century was driven, in large measure, by reductions in infant mortality. By contrast, recent reductions in age-specific mortality rates for those aged 50 and over, associated particularly with declining mortality rates from heart disease and life-expectancy imply that conditional life expectancy has increased significantly. As Day (1995) observes, if ‘aged’ is defined as ‘having a conditional life expectancy of less than 10 years, the aged proportion of the population has increased only modestly.

The combined impact of the demographic transition and the shift to a service economy imply that most major life events, including household formation, childbearing, maximum earning capacity, freedom from the obligations of parental support and, of course, death, will occur at older ages than in the past. This change is reflected in the usage of terms like ‘middle-aged’ and ‘old’. Whereas the Macquarie Dictionary (1981 edition) suggests that the term ‘middle-aged’ commonly applies to those between 45 and 60, the usage of the 1960s and earlier applied it to anyone over 40 and current usage appears to refer to those aged between 50 and 70. The term ‘old’ has been replaced in polite usage by euphemisms such as ‘older’ and would, in any case, not be applied to anyone under 70.

In this context, it seems plausible to argue that an optimal response to the changes associated with the new economy is to delay retirement from the workforce. Changes in demographic structure and the labour market have made early retirement more socially and personally costly for a number of reasons.

First, increasingly steep age-earnings profiles imply that the income foregone through early retirement, expressed as a proportion of total lifetime earnings, is increasing. This effect is exacerbated by later entry to the full-time workforce and by the increase in the labour force participation of women, who are more likely to have careers interrupted by childbearing.

Second, the extended period of financial dependence for children increases the difficulty of saving for retirement. Even with the high levels of compulsory saving that characterize the Australian system a large proportion of households are likely to experience significant drops in disposable income. The combination of later child-bearing and early retirement also implies that the early childhood period at which the time demands of child care are most intensive tends to coincide with the point at which standard career paths demand maximum commitment to the workforce.

Finally, the increase in conditional life expectancy at retirement age implies an increase in the period of retirement which is exacerbated by early retirement. This increases the savings required to fund an annuity yielding a given income throughout the period of retirement. For example, at an interest rate of 5 per cent, an annuity of $1000 per year costs $7700 for a conditional life expectancy of 10 years, $10400 for 15 years and $14000 for 25 years.

Some policy changes, such as the abolition of compulsory retirement and the increase in the pension age for women appear consistent with the economic and demographic realities of tne new service economy. In general, however, both retirement incomes policy and the labour market changes associated with neoliberalism have driven a trend towards early withdrawal from the labour force.

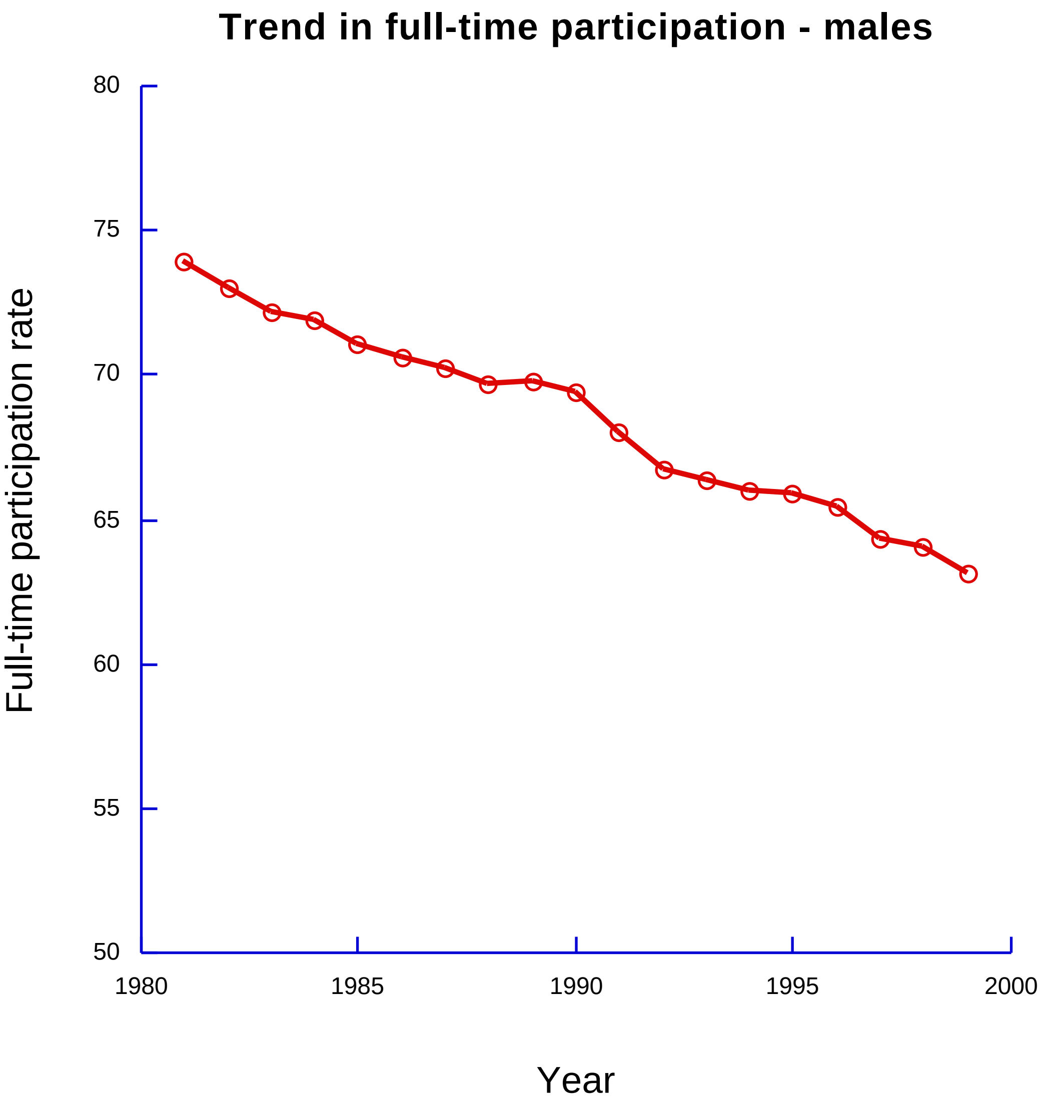
The neoliberal new economy and the labour market

The combination of chronically high unemployment, the short-term focus of financial markets and the insecurity engendered by neoliberal economic policies led to the breakdown of the system of lifetime employment that prevailed, at least for most male workers, between 1945 and 1970. The breakdown was a gradual process. During the 1970s, the growth in unemployment primarily affected new entrants to the labour market, such as young people, recent immigrants and married women returning to the labour force after raising children. During the 1980s, unemployment affected blue-collar workers, but it was not until the 1990s that insecurity of employment affected white-collar workers on a large scale (Langmore and Quiggin 1994).

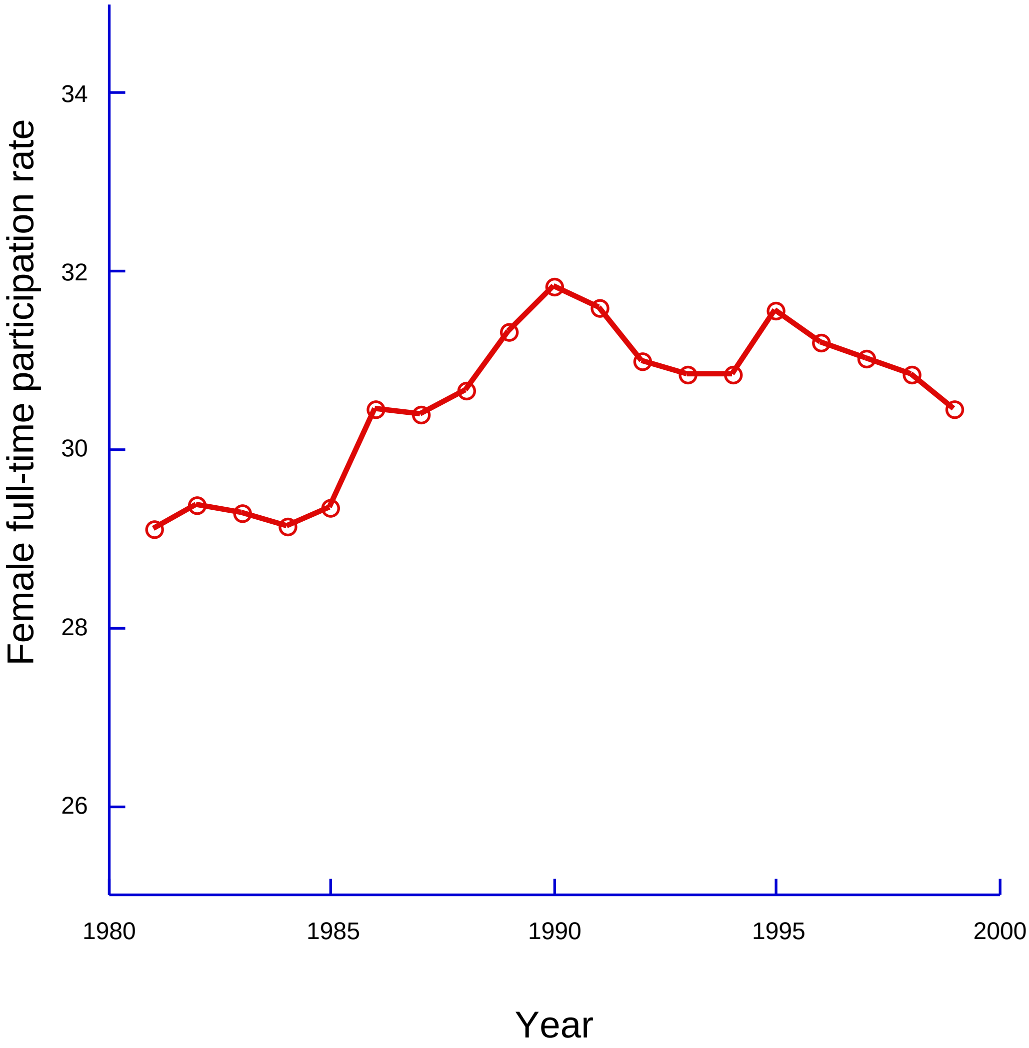
The most notable characteristic of the neoliberal labour market is polarization. Wages for educated employees in the core labour force (broadly speaking, those in the top 20- per cent of the wage distribution) have risen substantially, while wages for lower-income workers have stagnated. Although the statistical evidence remains ambiguous, it seems likely that the Australian labour market displays a ‘disappearing’ middle, similar to that evident in the United States, with growth at the top accompanied by expansion of low-paid low-skilled employment (Gregory 1993)

Polarization is also evident in hours of work. In place of a standard 40-hour work week for the majority of employees, the workforce is increasingly divided into a core group, expected to work considerably more than 40 hours per week, and a periphery of unemployed, underemployed, casual and part-time employees. The increase in working hours is most noticeable for very long hours (60 or more per week). The proportion of full-time employees working more than 60 hours per week nearly doubled from 7.2 per cent in 1978 to 12.7 per cent in 1999.

The decline in the number of full-time jobs has been noted by many observers. What has been noted less has been a decline in participation in the full-time labour force during the 1990s. The full-time labour force consists of those actually in full-time employment along with those unemployed and seeking full-time employment. As shown in Figures 1a-c, the full-time participation rate for both males and females has fallen during the 1990s.



Trends in full-time participation - females



For males, the decline in participation in the full-time labour force is a continuation of a long-standing trend. This trend is predominantly driven by increased participation in education (an economically rational response to the needs of the new economy), by increasing long-term unemployment and by early retirement.

By contrast, the decline in female participation in the full-time labour force represents the reversal of a long-term trend towards increased participation. Obviously, this trend could not have continued forever. However, it seems likely that the decline in full-time participation during the 1990s is driven in large measure by increasing demands for longer hours of work and greater effort which have made full-time employment less and less compatible with family responsibilities. As .Wajcman (1998) and others have noted, talk of a family-friendly workplace has remained talk, while conditions of employment have become steadily less family-friendly.

In addition to the full-time employed and those unemployed and seeking full-time work, it is also important to consider the underemployed and, particularly, those currently working part-time who would prefer to work full-time. A consistent time series comparable to that presented above is not available. ABS data (6265.0) indicates that this group was growing until the mid-1990s but has subsequently contracted and now accounts for about 2 per cent of the working-age population.

Demographic implications

The demographic implications of the neoliberal new economy are disturbing. In life-cycle terms, participation in the core full-time labour market is highest for those in the age group 25-54. Hence, peak labour force participation coincides with peak rates of family formation and with the most intensive years of child-raising. This is an obviously irrational allocation of labour effort over the life cycle. Not surprisingly, as McDonald () observes it has contributed to a decline in family formation and increasing childlessness.

Although the trend towards early retirement predates the rise of the neoliberal labour market, policy attempts to slow the trend have been more than offset by the pressures of the labour market. The insecurity of employment in the core labour market results in high rates of forced exits. For workers aged over 50, it is generally difficult to re-enter the core labour market after being made redundant, and early retirement is therefore a rational, if not entirely voluntary, choice. For successful members of the core labour force on the other hand, early retirement is increasingly seen as a reward for years of 50-hour-plus working weeks.

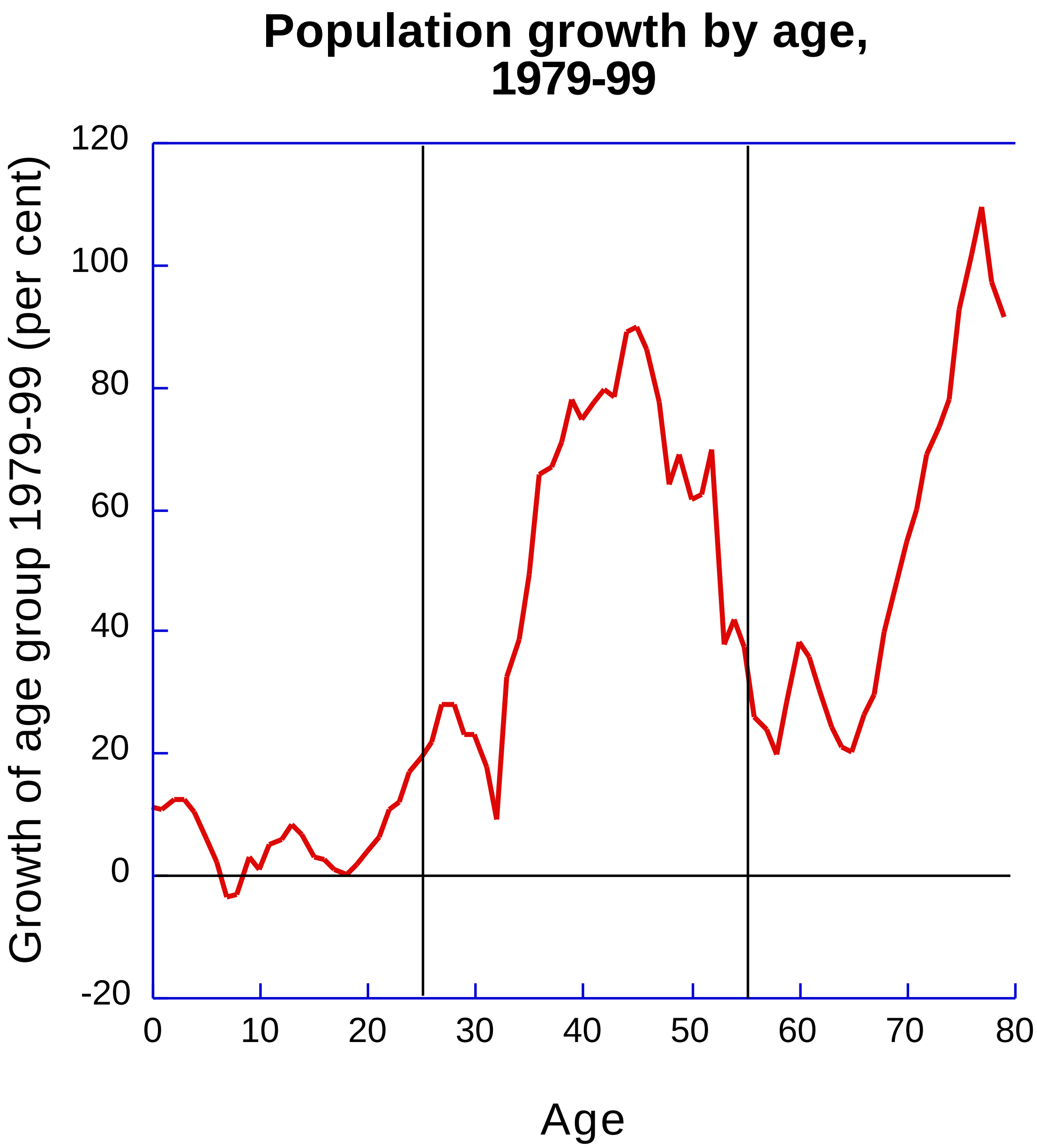
The decline in labour force participation is not so evident for older women. However, this is essentially a cohort effect reflecting the fact that the cohort of women now aged between 50 and 65 has always had higher participation rates than earlier cohorts. For the subgroup of women who have participated in the core workforce, the experience of increasingly insecure employment and high levels of involuntary early retirement has been similar to that of men.

Dependency ratios and the aging crisis

Changes in labour markets have rendered traditional concepts of the dependency ratio obsolete. Whereas the traditional dependency ratio treats all those over 16 as potential members of the workforce, young people between 16 and 25 are now typically engaged either in full-time education (often supplemented by participation in casual employment in the peripheral sector) or in various forms of insecure and peripheral employment.

The notion that dependency for the old begins at 65 is obsolete for two, somewhat contradictory, reasons. On the one hand, the increase in the potential productivity of older workers implies that a rational allocation of effort over the life cycle would involve reduced labour supply during the years of peak family responsibilities, supplemented by later retirement. The abolition of compulsory retiremement and the gradual disappearance of defined-benefit superannuation schemes tend to make such a response feasible. However, most of the developments associated with neoliberal labour market reform have worked in the opposite direction, effectively consigning workers aged between 55 and 65 to early retirement or employment in the peripheral labour market.

As a result, a more meaningful measure of dependency is the proportion of the population aged between 25 and 54, the years of high participation in the peak labour force. Over the past three decades, members of the baby boom cohort and the equally large succeeding cohorts have entered this age group, while members of the 'baby bust' cohort of the Depression and World War II have left it. Hence, the demands of the neoliberal labour market for 'prime-age' workers has been met relatively easy. This group has grown in size relative to the population as a whole.



From 2000 onwards, however, the proportion of the population aged between 25 and 54 will decline as members of the baby boom cohort turn 55. If current institutions are maintained, the ‘aging crisis’ will arrive at least a decade earlier than would be suggested by an examination of traditional dependency ratios.

Policy responses

The demographic implications of the neoliberal labour market are inconsistent with the requirements of a new economy based on information and human capital. These inconsistencies have been masked, to some extent, by the impact of the baby boom, which has produced an increasing relative supply of prime-aged workers over the past two decades. However, a labour market framework which relies on insecurity to drive effort and which treats older workers as expendable will not be viable in coming decades.

Ultimately, extensive re-regulation of the labour market is necessary to offset the current tendency to extract longer hours and greater work intensity from the core workforce, and to impose family-unfriendly conditions, such as broken shifts, on the peripheral workforce. Thiw will require a reversal of the trend to enterprise bargaining and individual contracts.

In the short run, it is important to examine family-friendly changes that can easily be applied as minimum award conditions for all workers. The most important of these would be an increase in annual leave from four to, say, six weeks per year. This would have the same effect as a 4 per cent increase in wages and could easily be phased on over a few years. Although the practice of taking annual leave in a block has almost disappeared, it appears that most workers still use their annual leave entitlements, though they may accumulate leave in some years and use it up in others. An extension to six weeks, the length of the long school vacation might even contribute to a revival of long family holidays.

In the longer term, attempts should be made to reduce weekly and annual working hours to levels comparable to those prevailing in Europe. The success of French legislation imposing a maximum working week of 35 hours, despite repeated predictions of doom from English-speaking critics, indicates that the primary obstacle to such policies is the lack of political wiil.

A second important step is further extension of award protections to part-time workers, particularly the growing number working on the oxymoronic basis of ‘long-term casual’ employment. Women, and particularly women with childcare responsibilities are over-represented in this group. Recent decisions of the Australian Industrial Relations Commission allowing casual workers to seek permanent employment after six months is a step in the right direction, as is the requirement that employees not be called out for a period of less than four hours.

Attemtps should be made to eliminate both the obstacles to continued participation in the labour force for older workers and the remaining subsidies to early retirement. Improvements in the availability of permanent part-time positions would be of particular value to older workers seeking an alternative to total withdrawal from the labour force.

At the other end of the age distribution, it is vitally necessary to reverse the cutbacks to education that took place under Federal governments of both political colours during the 1990s. Ideally, it would be desirable to reverse the tendency of full-time students to work longer hours in part-time jobs, and to correspondingly increase the number of hours allocated to educational attendance and study. This may however, prove to be a challenge beyond the capacity of policy-makers.

Concluding comments

Changes in the structure of the economy have profound demographic implications. Conversely, changes in the pattern of family formation and childbearing will play an important role in determining the supply of skilled labour and the viability of economic institutions.

Neoliberal market reforms have been justified, at least in part, by the claim that such reforms are a necessary adjustment to technological changes of which Internet technology is a prominent example. At least in demographic terms, this claim is unsustainable. The demographic changes arising from neoliberal policies are exactly the opposite of those required by an economy in which human capital has displaced labour and physical capital as the main engine of economic growth.

A knowledge-based economy cannot afford to waste human capital. The neoliberal economy, based on intensified labor-market competition discards large numbers of workers in Volatire's words '*pour encourager les autres'.* The result is intensified labour effort in the peak years of family formation and child-raising, followed by high levels of voluntary and involuntary early retirement.

Neoliberal policies have proved sustainable largely because of the relative growth in the prime-aged labour force arising from the postwar baby boom. When this trend reverses itself in the near future, it will become necessary to adopt labour market institutions more congenial to full employment and less wasteful of scarce human capital.

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