The Ageing Workforce? Separating Fact from Hype

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Abstract

*This article explains that much of the hype about workforce ageing in Australia is either exaggerated or plainly wrong. It is true that the workforce is ageing, as is our society generally. However, bigger and more important workforce developments have occurred and are occurring. The increase in women's participation and changes in labour demand derived from effective demand are far more significant. The paper demonstrates the one-sidedness of the supporting arguments for a 'crisis' of workforce ageing. It explains that a 'cult' of early retirement is a myth and proposals such as raising the statutory pension and superannuation preservation ages are unfounded. Arguments for an ageing 'crisis' have more to do with the neo-liberal **ideological** obsession with lower government spending and, in particular, reduced and or 'offloaded' welfare spending.*

Introduction

Much of the recent hype about workforce ageing in Australia is either exaggerated or plainly wrong. Yes, Australia's population is ageing. Certainly, the average age of the workforce has increased. However, closer analysis of labour force data reveals that the real causes of the higher average workforce age are shifts in workforce composition and not only population ageing *per se*. Increased labour force participation by women across all age cohorts is the major compositional change. The data also reveal that, in aggregate, early retirement is less influential than is commonly supposed. The received wisdom that Australia will experience a severe labour shortage in the future as an increasingly older workforce cascades towards early retirement is equally flawed.

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[1] Presented originally as a paper at the Social Policy Research Centre Conference 2003. Participants at the conference and two anonymous referees deserve thanks for their comments and valuable suggestions. The usual caveat applies.

Once the evidence is considered objectively blunt policy proposals such as raising the statutory pension and superannuation preservation ages lose their apparent urgency. Lurking behind such blunt prescriptions, however, is neo-liberal budgetary angst over welfare commitments to a larger proportion of the population who will be older than 65. Ageing in Australia does not constitute a crisis or even a problem. Rather the phenomenon calls for thoughtful responses based on insight and evidence.

The second section of this paper will consider the one-sidedness to which recent views on population and workforce ageing can succumb a corresponding propensity for knee-jerk policy responses. The third section will assess the evidence on population and workforce ageing and early retirement to reinforce the message of section 2. The fourth section will decompose the evidence on compositional changes in the Australian workforce over the past two decades in order to determine which are the more influential factors.

In this spirit the fifth section takes a critical look at the Australian Bureau of Statistics (ABS) population projections so that we can better evaluate claims that Australia will face a labour shortage in future years. The sixth section presents a macroeconomic model in which aggregate demand for labour should be considered. This model is then used to offer some alternative projections and a more sober assessment of possible future labour shortages. The seventh section, which introduces briefly the role of immigration and its effect on labour supply (and demand), is the penultimate section before the conclusion.

Exaggeration and Simplistic Policy Responses

Much of the writing on the subject of population and workforce ageing has an alarmist tone. 'Dealing with the problem' is its focus, and this establishes an inbuilt but unfortunate dramatic emphasis. Such an emphasis triggers what we might call crisis response thinking. This is unfortunate because crisis response policies, in our view, are not required and are likely to be counterproductive. *The Age* reported an example on 2 December 2002:

> The Federal Department of Finance has privately canvassed raising the age at which people can retire and access their superannuation to tackle the cost of the ageing population. An internal finance report … has argued that the pension age should be lifted from 65 to 70 … It also said the so-called preservation age at which people can access superannuation should also be lifted, to encourage people to work longer. (Gordon 2002)

Federal Treasurer Peter Costello quickly disavowed the paper, but it surely reflects a line of thinking. The implication of thinking that ageing is synonymous with 'ageing problem' or 'ageing crisis' is that people are more inclined to present blunt instruments as policy responses. Moreover it is a short step from seeing ageing as *a problem* to seeing older workers as *the problem* and, therefore, at whom the blunt instruments are directed (see eg, the emphasis in CPP 2002, p. 5). This policy cast then inevitably entrenches conflicting positions and engenders misleading arguments over trade-offs.

One such supposed trade-off – that of younger versus older workers' jobs - has not been a major preoccupation in the recent Australian literature. However, it is discussed overseas (see eg, Auer & Fortuny 2000; ILO 2002a, pp. 3-5; 2002b, p. 7; Spieza 2002), and it relates an important earlier dynamic that operated both internationally and in Australia. 'Given the shortage of jobs in the labour market', according to Auer and Fortuny, 'it is commonly believed that the old should make room for the young'. Early retirement was therefore encouraged 'in the hope that it [could] improve job prospects for the young unemployed. Nevertheless, as A. Sen noted in his address to the International Labour Conference [Sen 2000] … whether young and older workers are substitutes remains doubtful' (2000, pp. 23-24). The reasons are that 'entry and exit flows in the labour market' do not usually occur in the 'same sectors, companies or occupations' (Auer & Fortuny 2000, p. 24).

What the fact of 'out of phase' entry and exit flows also points to is an inherent problem with unthinking responses such as raising the statutory retirement age as a 'solution' to a presumed 'early retirement crisis'. That is, it is likely to affect the segment of the labour force that would continue working until the current statutory age of 65 but not the segments that may be voluntarily leaving the labour force at ages 55-60 or that are forced into involuntary early retirement by unemployment, restructuring, downsizing and retrenchment. Indeed the focus needs to be elsewhere than the statutory retirement age *if* early retirement – voluntary, involuntary and pseudo-voluntary - is deemed a problem (cf. Spieza 2002, p. 96).

An interesting set of exchanges occurred on the Australian Broadcasting Commission's (ABC) *7.30 Report* of 27 November 2002. Presenter Kerry O'Brien (2002) introduced the segment 'Early retirement an expensive dream for nation' and remarked on Prime Minister John Howard's call for Australians to work longer. O'Brien suggested that 'many people have no choice' and that those who are jobless over age 45 find it 'often near impossible to find another. It seems that the country's employers are still firmly of the view that younger is better.' Howard had argued the previous week that 'the cult of early

retirement', as he called it, 'that we encouraged so enthusiastically as a community a generation ago should be changed' (Howard 2002).

Veronica Sheen of the Australian Council on the Ageing quickly objected 'to the notion of a cult of early retirement. Most early retirement is involuntary', she said, 'it is not a matter of choice for older workers. It is something imposed because they have no alternative in today's labour market.' (Sheen 2002) Interestingly Minister for Ageing Kevin Andrews tended to agree with Sheen:

> Often human resource managers seem to look at the way in which they go about their hiring and firing practices through a focal point that says if you're between say, 25 and 35, you're in line to get a job, but if you're over 45, you're in line to lose a job. We have to turn that around. (Andrews 2002)

The mindset that Andrews identifies is one that will reappear throughout this study. It is neither uncharacteristic nor is it fading with society's growing awareness of issues about ageing.

Facts about Workforce Ageing and Early Retirement

It is especially important in this light to establish the facts about population ageing, labour force ageing and early retirement. It will help in thinking more clearly about policy options and to evaluate the pervasive claims we hear about the population ageing, labour force ageing and early retirement. Table 1 and Charts 1-7 summarise the main data.

Chart 1 demonstrates that the population is ageing. The average age in 1982 was 32.5; it was 36.2 in October 2002 (ABS Cat. 3201.0).[2] The average age of the nominal working age population (ie, 15-64) was 35.9; it is now 37.8. The chart shows that there are proportionately fewer people in the younger age groups. The birth rate in 1.94 was 1982; it is now about 1.75 (ABS Cat. 3105.0). This is an important contributor to the rise in the mean age of the population. The chart also shows that there are proportionately fewer people in the 25-34 age group and proportionately more in that of 35-59. As the baby boom generation[3] travels through life it also travels through the data cohorts. It currently bulks large in the 45-54 age group. Beyond this cohort, however, all

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[2] Data here are our calculations based on the ABS data series identified.
[3] The ABS defines the baby boom generation as Australian residents who were born in Australia or overseas during the years 1946 to 1965.

differences between 1982 and 2002 diminish in importance, except in the 65+ group.

A significant factor here is the increase in life expectancy (declining death rates). Life expectancy in 1981 was 71 for males and 78 for females; the ages now are 77 for males and 82 for females (ABS Cat. 3302.0). The ABS anticipates that the birth rate will stabilise at about 1.75, but life expectancy will increase by 5-7 years over the next 50 years, raising the median age to about 42-43. Hence the population proportions for the 65+ cohort rise sharply for both the 2016 and 2051 projections shown in Chart 1.[4]

Similar overall trends exist when we examine the Australian labour force, but there are differences, and these differences are significant. The average age of the nominal working age labour force (ie, aged 15-64) has increased. In 1982 it was 35.3, but it is now 37.6 (October 2002, ABS Cat. 6202.0).[5] This is one factor affecting the changing composition of the workforce. Age group percentages of 'males', 'females' and 'persons' in the labour force (Charts 2-4) give a more comprehensive perspective. First they demonstrate the strong influence at the younger end of the distribution of the trend for young women and men to remain in education longer. That is, there is a downward shift from 1982 to 2002. Second the baby boom cohort is ageing, and this effect registers as a decrease in the proportion of the labour force of those in the 25-34 cohort (shift downward) and an increase in the 35-44 and 45-54 cohorts (shift upward). Third the proportion of women employed shown for each cohort older than age 25 increases dramatically.

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[4] Readers should refer to comments on use of ABS labour force and population projections in section 6 below.
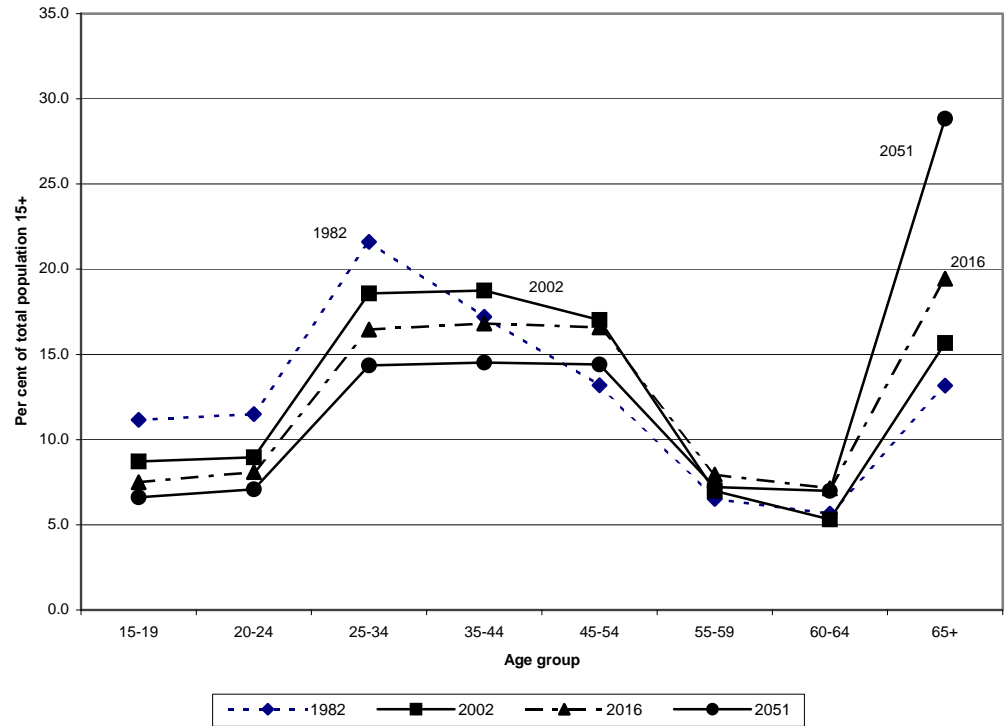[5] The figures are slightly higher if we include those who are 65+ and still working.

Chart 1:   Working Age population 1982-2051 by Age, Australia (%)

Table 1:   Labour force and population by age and gender, Australia (%)

	15-19 %	*20-24 %*	*25-34 %*	*35-44 %*	*45-54 %*	*55-59 %*	*60-64 %*	*65+ %*	*Total %*
*Proportion of total labour force: actual and projected**									
1982									
Females	5.6	6.3	8.8	7.1	5.2	1.5	0.6	0.3	35.4
Males	6.3	8.9	17.6	13.9	10.4	4.4	2.2	0.9	64.6
Persons	11.9	15.2	26.4	21.0	15.6	6.0	2.8	1.2	100.0
2002									
Females	3.8	5.3	10.4	11.1	9.7	2.4	0.8	0.4	44.0
Males	4.0	6.1	13.4	13.6	11.9	4.0	2.0	1.1	56.0
Persons	7.9	11.4	23.8	24.7	21.5	6.4	2.8	1.5	100.0
*2016**									
Persons	6.9	11.0	22.4	22.5	22.4	8.5	4.3	2.1	100.0
*Participation rates: actual and projected**									
1982									
Females	59.6	70.9	53.4	58.5	49.3	28.0	11.0	2.4	44.6
Males	65.0	90.9	95.6	95.1	90.7	80.1	48.1	9.7	77.4
Persons	62.4	80.9	74.5	77.0	70.4	54.1	28.8	5.4	60.8
2002									
Females	59.9	77.8	72.1	72.6	74.3	50.4	24.9	3.5	56.3
Males	58.3	86.5	91.6	91.3	88.1	73.6	49.1	9.9	72.4
Persons	59.1	82.2	81.8	81.9	81.2	62.1	37.1	6.3	64.2
*2016**									
Persons	55.4	82.0	82.5	83.2	81.5	63.1	35.7	6.5	60.6
*Civilian population 15+ persons ('000): actual and projected**									
1979	11.2	11.5	21.6	17.2	13.2	6.5	5.6	13.2	100.0
2002	8.7	9.0	18.6	18.8	17.0	7.0	5.3	15.7	100.0
2016*	7.5	8.1	16.5	16.8	16.6	8.0	7.1	19.5	100.0
2051*	6.6	7.1	14.4	14.5	14.4	7.2	7.0	28.8	100.0

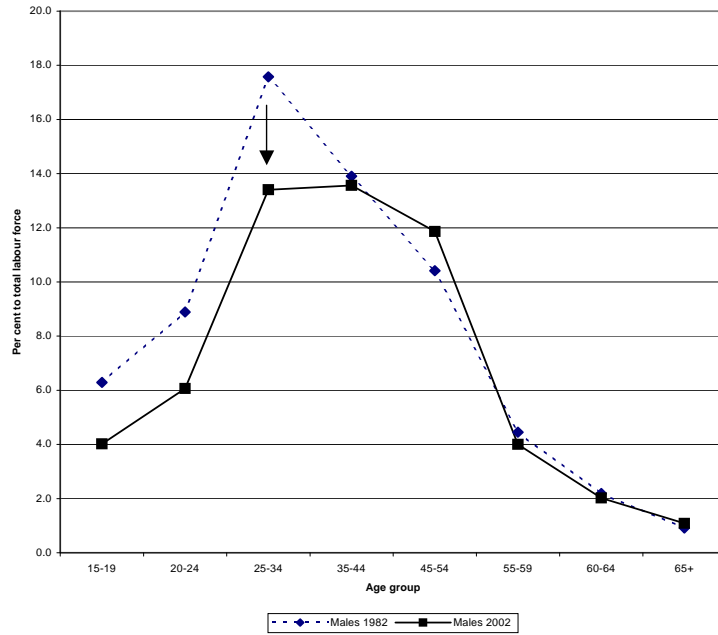Sources: ABS (Cats 6260.0, 6202.0, 3222.0)

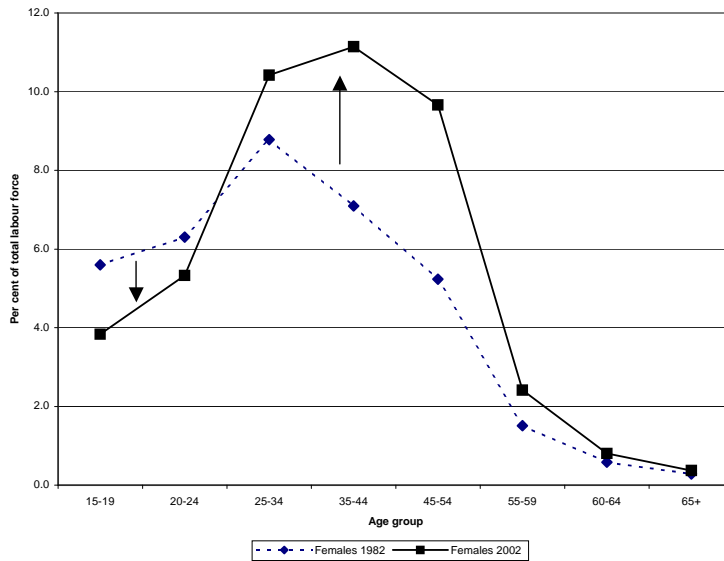**Chart 2:   Male Labour Force 1982-2002 by Age, Australia (%)**

Chart 3:   Female Labour Force 1982-2002 by Age, Australia (%)
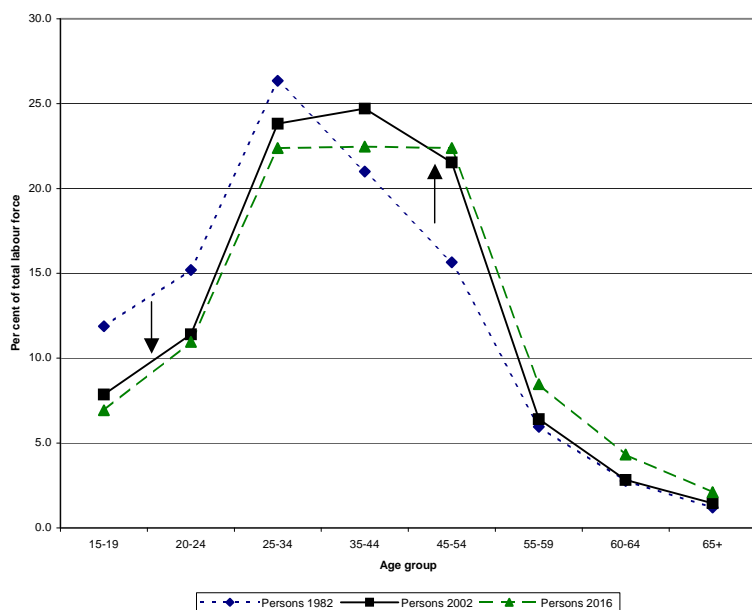
Chart 4:   Labour Force 1982-2016 by Age, Australia (%)

Causes of Change in the Australian Workforce Age Profile

Four effects emerge from the data above. First is the 'educational effect', which operates in the 15-19 and 20-24 age cohorts. People are staying at school longer and then going on to tertiary education, both higher education in the universities and vocational and other study in the vocational and technical education (VET) sector. Second is the 'baby boom effect', which operates in the 34-44 and 45-54 age cohorts. Third is the 'early retirement effect', which operates in the 55-59 and 60-64 age cohorts. Finally there is the 'participation effect', which captures the relative shifts in the proportions of females and males in all age cohorts. This section will explore which effects are the stronger and which are the weaker.

It is important for readers to note that the cohorts are not equally sized. The first two and the last two are five year cohorts, while the three 'prime working age' cohorts in the middle are 10 year cohorts. This is the way that the ABS summarises the data and, though it might be better were all to span five years, we are to some degree stuck with it. This data presentation problem in part explains the extent of the peaks in the charts above. Of course, these peaks are

also partly explained by the 10 year cohorts embracing the prime working years. Alas we are also stuck with this designation, despite its pejorative tenor. We do not have data that tell us the rates at which men and women in each cohort join and leave the workforce, and why. Thus it is not possible to distinguish precisely changes in participation from a given year to another (educational, male versus female and early retirement) from changes in transition (eg, baby boom) as people graduate from one to other cohorts as they age. Hence we are forced to make some assumptions.

An admittedly crude assumption will be made that the male data are a reasonable proxy for the 'educational' (15-19 and 20-24), 'baby boom' (34-44 and 45-54) and 'early retirement' (55-59 and 60-64) effects for both men and women in the relevant cohorts. In this way we can then isolate the assumed effects of increased female *versus* male participation in the labour force (including non-baby boom transition effects).[6] The data here track the changes in the respective proportions across the 20 years from 1982 to 2002.

Table 2 gives an initial comparison by showing the percent change in the proportions in each cohort from 1982 to 2002 for both 'males' and 'females' by subtracting the 1982 data from the 2002 data shown in the first rows of Table 1 above. These will add to the percent change for 'persons' in each cohort. We can estimate the educational, baby boom and early retirement effects by taking three steps. The first step is to multiply the females 1982 data in Table 1 by one plus the proportionate change between 1982 and 2002 in the males data. We had obtained the proportionate increase or decrease for males (ie, the data at row 3 of Table 2) by dividing the 2002 data by the 1982 data in Table 1 and then subtracting one.

Now, on the assumption that the males data are a reasonable proxy for the educational, baby boom and early retirement effects for both men and women, increasing or decreasing the females 1982 data by the males proportionate change will give a reasonable approximation of these effects for females from 1982 to 2002. In other words the difference between the original 1982 data for females and this new data will comprise the assumed educational, baby boom and early retirement effects for women. The results of this second step are shown at row 4 of Table 2.

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[6] The word *versus* applies here not because of trade-offs but because we are comparing percentages of the sum of two components (males and females). When one goes up the other must go down.

If we then add the data at row 4 of Table 2 to the change for males we get the total (or persons) educational, baby boom and retirement effects for the relevant cohorts. The third step is to isolate the assumed change for females caused by increases in female labour force participation. This is simply the female change less the assumed educational and baby boom effects for females (ie, row 2 less row 4).

Table 2:   Education, Baby Boom, Early Retirement and Female Participation Effects on the Labour Force by Age 1982-2002, Australia

Item	% change 2002 - 1982								
	15-19	**20-24**	**25-34**	**35-44**	**45-54**	**55-59**	**60-64**	**65+**	**Total**
1 Male change (assumed education/baby boom/early retirement effects) – from Table 1	-2.3	-2.8	-4.2	-0.3	1.5	-0.4	-0.2	0.2	-8.6
2 Females change (includes female education/baby boom/early retirement effects) – from Table 1	-1.8	-1.0	1.6	4.0	4.4	0.9	0.2	0.1	8.6
3 Males (education/baby boom/early retirement effects) proportionate change – from Table 1 = (2002/1982)-1	-0.36	-0.32	-0.24	-0.02	0.14	-0.10	-0.08	0.19	-0.13
4 Proportionate females education/baby boom/early retirement change = (Table 1 1982 x (1 + row 3 data) less original 1982 data)	-2.0	-2.0	-2.1	-0.2	0.7	-0.2	0.0	0.1	-4.7
5 *Total* education*/baby boom/early retirement effect = (rows 1 + 4)*	***-4.3***	***-4.8***	***-6.2***	*-0.5*	***2.2***	*-0.6*	*-0.2*	*0.2*	*-13.3*
6 *Assumed* females *participation effect change = (rows 2 – 4)*	*0.3*	*1.0*	***3.7***	***4.2***	***3.7***	***1.1***	***0.3***	*0.0*	*13.3*
7 Total (persons) change = (rows 5 + 6) = (rows 1 + 2) note rounding	-4.0	-3.8	-2.5	3.7	5.9	0.5	0.1	0.3	0.0

Sources: ABS (Cats 6260.0, 6202.0, 3222.0)

Though the estimates in Table 2 are rough, they consolidate a number of inferences that are suggested by Charts 2-4. First they show that the education effect (people staying in education longer) are the strongest effects in the 15-24 cohorts, as shown by the figures in bold.[7] Note that female participation is

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[7] The strongest influences are shown in bold and by shading.

also increasing in the 20-24 cohort, thus reducing the education effect by 1 percent. Second the next cohort (25-34) experiences the baby boom effect in reverse. That is, the strong decline of 6.8 percent reflects its exodus, but this is offset by a strong rise of 3.7 percent due to the female participation effect. Third the next two cohorts are those in which we might expect to observe the baby boom effect most strongly. In fact the female participation effect is stronger, as it is also in the 55-59 and 60-64 cohorts. These cohorts have not experienced the force of the baby boom, which begins with those born in 1946. Therefore they should capture any aggregate early retirement trend. There is some early retirement effect, but it is outweighed by the rise in female participation. This is not to say that some firms, industries and occupations are not affected by early retirement (eg, education and teaching), but it does mean that the extravagant claims about early retirement from the labour force as a whole are likely to be wrong.

A recent *Reserve Bank of Australia Bulletin* assessment of 'The changing composition of the Australian workforce' comes to the same conclusion:

> The changing demographic and economic structure of Australia has substantially altered the composition of the workforce over the past two decades … The strong rise in female employment has been associated with an overall increase in the employment to population ratio since 1980. Another reason for the increase in the aggregate employment to population ratio is that the large baby-boomer cohort has been moving into the high-participation prime-age group over the past 20 years. *However, this effect appears to have been relatively small* … [and] an offsetting effect is that females in this cohort have, in aggregate, had a stronger attachment to the labour force than in earlier generations, and this might translate into higher employment shares as this cohort ages. (Babb and Parlett 2002, pp. 17-18; emphasis added)

What this says, in addition to dampening fears about the level of early retirement, is that talk about the labour force ageing *per se* is misleading. Yes, the proportions in the 35-54 range are increasing, as is the average age. However, these results have more to do with increasing female participation and people staying in education longer than they do with ageing. The ABS predicts that in 2016 there will be higher proportions in the older cohorts. This itself contradicts the aggregate early retirement hypothesis. Moreover, as Chart 4 demonstrates, the effects are not immense: certainly not when compared with the increases in female participation over the years shown. Nor is it a problem. Increased longevity implies better health. In 2016 employees in the 55+ range will be physically more able to continue working than were their forebears. The real issue is whether they will want to continue. If so the

problems turn on whether they will be adequately trained and if appropriate social and work organisation mechanisms will exist to cater for their needs.

Charts 5-7 reinforce these conclusions and begin to suggest what might really be fostering the current explosion of interest in the ageing of the Australian and OECD populations. These charts depict labour force participation rates: ie, the proportion of the relevant civilian population 15 and older that is in the labour force (employed and unemployed, essentially). The participation rate for males declines from 1982 to 2002 (Chart 5), but the reason is explained by the ABS to be partly a statistical artefact:

> … labour force participation rates for men are projected to fall in every age group except for those aged 60 and over. The projected male participation rate is influenced heavily by the changing age structure of the population. The projected decline in the participation rate from 73% in 1998 to 67% in 2016 reflects the substantially higher proportion of the male population aged 65 and over, together with a substantial fall in the proportion of males aged 25-44 years. (ABS Cat. no. 6203.0, 1999)
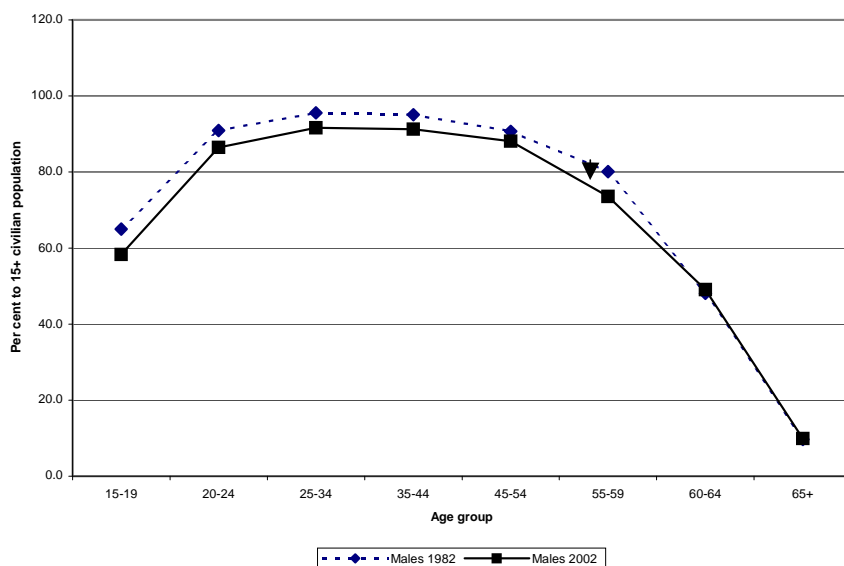

Chart 5:   Male Labour Force Participation Rates 1982-2002 by Age, Australia (%)

Meanwhile the participation rate for females rises from 1982 to 2002 across the key cohorts (Chart 6). This in turn offsets the decline for males and causes the overall increase for persons shown in Chart 7. Perhaps more remarkable,

given the concerns often expressed, is that the projected 2016 labour force participation rate for persons (Chart 7) is almost indistinguishable from those at present. Again this counsels us against listening to the fashionable but extravagant claims we sometimes hear about ageing that are translated indiscriminately to the labour force.

One more possibility must be considered before we can dismiss the early retirement hypothesis entirely. This is that employees are moving, involuntarily and voluntarily, into early retirement and then re-entering the labour force to work part time. Part-time work has increased in the past 20 years, as the Reserve Bank of Australia article above noted. Chart 8 offers the line of best fit trends in the ratio of total employment (full and part time) to full-time work for males, females and persons for 1982-2002. An upward trend means that part-time work has increased as a proportion of total employment. As can be seen there is a slight increase for males but strong increases for females and persons. This says that the increase in female labour force participation has included a large part-time component.
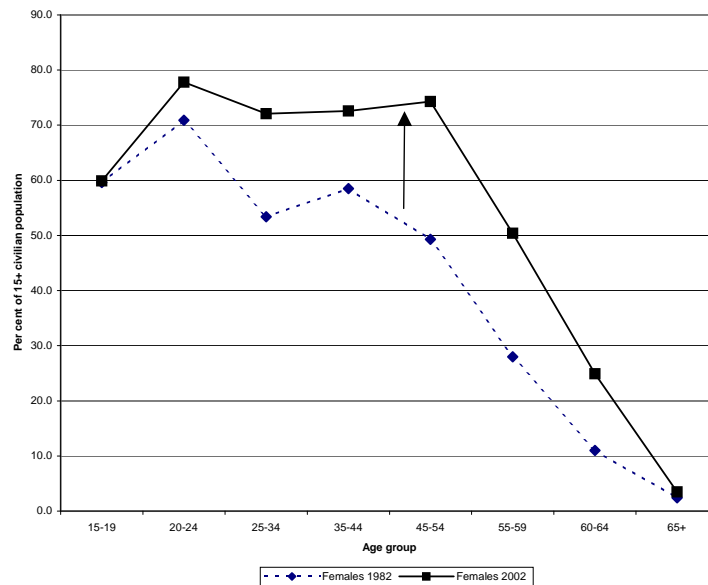

Chart 6:   Female Labour Force Participation Rates 1982-2002, by Age Australia (%)
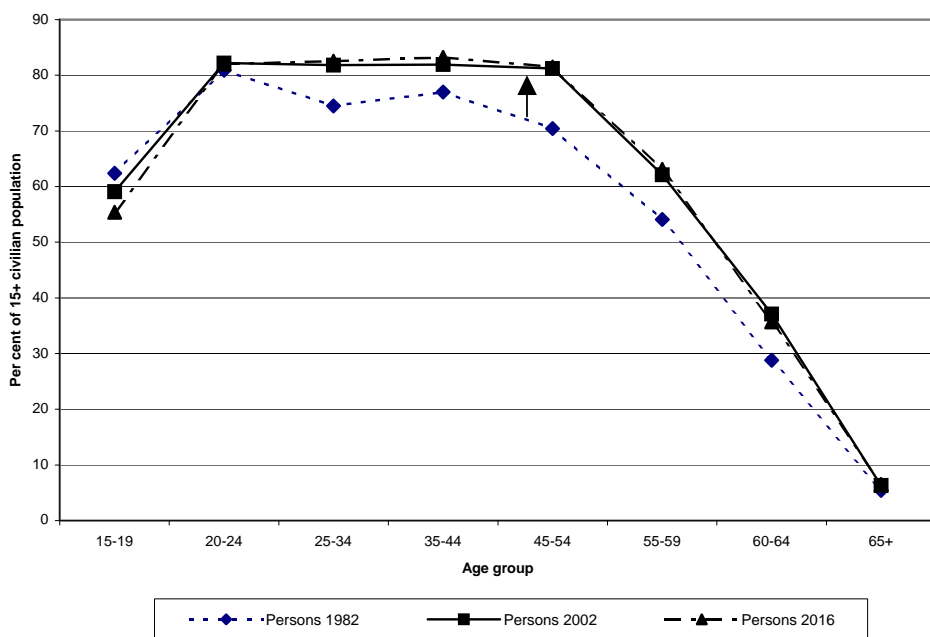
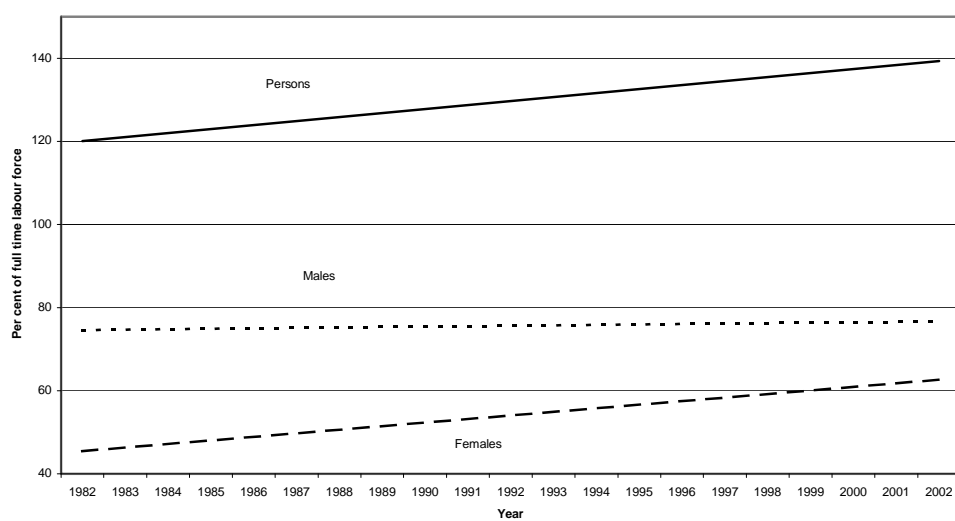**Chart 7:** **Labour Force Participation Rates 1982-2016, by Age Australia (%)**

Chart 8: **Ratios of Total Employment to Full-Time Employment 1982-2002 by Gender, Australia (%)**

Chart 9 summarises the overall effects over the past 20 years. It shows the percentage of the total labour force of each age group for persons for each of these years, with the years 1982 and 2002 in bold. This chart also shows that cyclical forces are at work. These embody deeper economic trends and effects of the country's overall economic performance on the labour force. Thus Chart 9 reflects both demographic and economic factors. The education and female participation effects are very clear. So also is a decline from 1982 to 1992 in the 55-59 cohort, which gives some support to the involuntary retirement hypothesis because this was at the depth of the last recession, and considerable job shedding occurred during this period. Notable, however, is the rise from 1992 towards 2002.
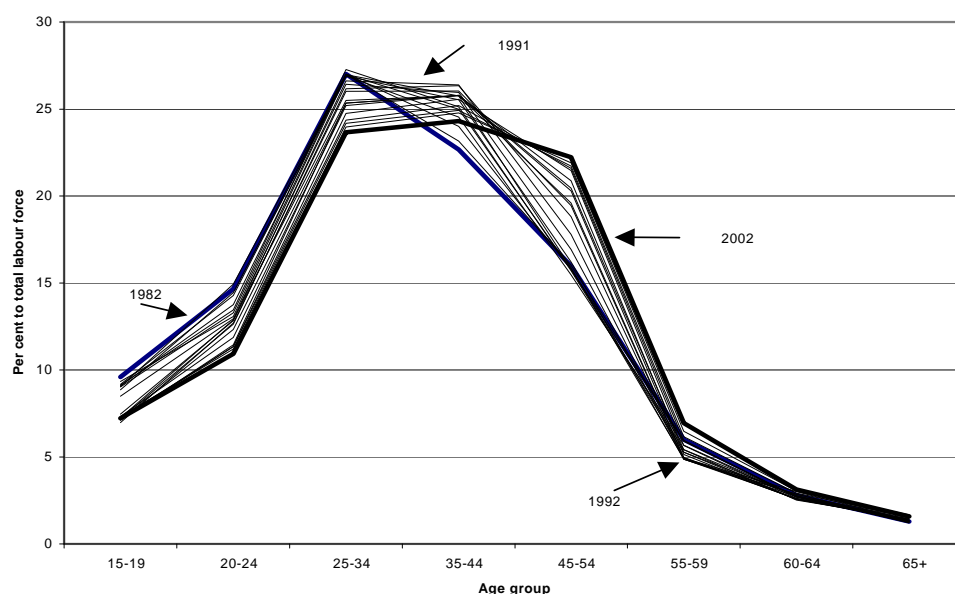

Chart 9:   Labour Force 1982-2002 for Each Year by Age, Australia (%)

Labour Force Projections and Ageing

Will Australia face an aggregate labour shortage in future years? Will rising female participation rates plateau as we head towards the year 2016? The initial focus will be exclusively on the first question. The second will come up at an appropriate time in the explanation. The first answer will be relatively straightforward, although the underlying economic issues are more complex. The regrettable fact is that there is no simple answer. Moreover, when the

future is at issue, it is all too easy to muddle the question, as well as the answer, and end up answering something quite different. Let us start then by clarifying the question.

The real question is an economic, social and political one. It is neither a statistical nor an econometric question. The question cannot be answered simply by opting to project past figures for economic growth less labour productivity into the future and then to assume we have obtained a reasonable proxy for the growth in labour demand.[8] Nor can we simply use Australian Bureau of Statistics (ABS) labour force and population time series to forecast labour supply in future years, though in some situations it is reasonable to do so. Indeed the ABS itself does so with its labour force projections:

> This article [*Labour Force Projections: 1999-2016*] presents projections of the Australian labour force to 2016. These projections show the outcome for the labour force of extrapolating historic trends in labour force participation rates into the future, and applying them to projections of the population. (ABS Cat. no. 6203.0, October 1999)

However, the ABS also warns us not to think of the projections as being much more than conditional statements:

> These projections are not forecasts, as they take no account of expected or likely changes in economic conditions or working patterns. (ABS Cat. no. 6203.0, October 1999)

The projections are merely *extrapolations* based on population growth *projections* and *historic* labour force participation rates. They are based on past data and judgements derived from circumstances that may or may not be replicated in the future. They are conditionals: *if* past labour force participation rate trends may be used … *if* population birth, death and migration rate assumptions are well grounded … *if* the regression model used to extrapolate the data is reasonable … *if* other assumptions and choices are appropriate … *if* …

In fact a closer inspection of the technical appendices and arguments surrounding *Labour Force Projections: 1999-2016* shows the projections to be the outcome of the following choices:

1   to use in some but not all age cohorts a 'logistic' regression equation to extrapolate future from past participation rates;

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[8] The precise meaning of this sentence will become clear later in this paper.

2   to use 1978 to 1999 participation rate data for the regressions (not another set of years); and

3   to use so-called Series II (medium growth) population projections, namely to assume a high level of fertility (1.75 babies per woman), low level of net migration (70,000 per annum) and continued decrease in mortality at the current rate.

Alternatives were possible. For (1) the ABS might have used straight-line regression or some other best fit equation, averages or even the most recent years' average data. For (2) they might have opted for 1990s data only, or they might have chosen to use smoothed data to moderate the effects of the two severe downturns included in their set. For (3) the ABS might have used Series I (higher growth) or Series III (lower growth). On the alternatives here alone 44 more options might have been presented to us.[9]

The argument is not over the ABS's choices. They may well have been sound when adopted in 1999. The argument is that we must be aware methodologically of two facts about the projections. First, by their nature, they inevitably are highly dependent on historic data and the assumptions (choices) made about how to project the past into the future. Second, while the ABS labour force projections are useful for being what they are, they do not answer the question posed at the start. That is, they answer different questions: what might the labour force be like years from now given x, y and z? They do not, by themselves, answer whether Australia will face an *aggregate* labour shortage in future years because they do not intend to.

The labour force projections merely define, given the assumptions used, what we might call a *possible* labour supply constraint. They do not answer the question posed at the start precisely for the reasons the ABS states: they ignore 'expected or likely changes in economic conditions or working patterns'. Being what they are, however, they can help us to answer other questions. For instance, the ABS demonstrates that:

> Changes in participation rates, and the components of population growth (birth and death rate and overseas migration levels) will have a relatively small impact on the future labour force. The bulk of the labour force in 2016 will be made up of people who are currently alive and in Australia. *The size and age distribution of the current Australian population is the most important factor in determining the size and age distribution of the labour force in 2016.* As the population ages, population growth will slow.

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[9] Based on a 5 x 3 x 3 set of choices for (a), (b) and (c).

> While the likely slowing in labour force growth could be moderated by
> rises in immigration or labour force participation, any increase in these
> components is unlikely to be large enough to prevent slower growth in the
> labour force, compared with historical levels. (ABS Cat. no. 6203.0,
> October 1999; emphasis added)

The italicised sentence is doubtless the main argument. It suggests that it is
reasonable to use the labour force projections for broad comparisons. The past
actually does weigh heavily on the future. The reason is that the existing mass
of the labour force, and its distribution through age cohorts, dominates other
factors as it plods inexorably through cohorts towards retirement. Broadly it
suggests that we can use the ABS projections to compare now and 'then'
because possible changes in participation rates, broadly speaking, will not
have large effects on workforce totals.

This proposition can be tested. Table 3 gives the current 2002 data and the
2016 projection calculated with the proposed cohort participation rates
estimated by the ABS. Overall the labour force will grow by 15.5 percent,
with the greatest proportionate growth being in the older cohorts because of
population ageing. Table 4 uses the average 2002 cohort participation rates as
proxies for the 2016 rates (ie, it assumes that nothing will change). This has
the labour force grow by 14.1 percent. The difference in the absolute size of
the labour force between Tables 3 and 4 is not large (10,842,300–10,793,200
= 49,100), and the proportions in each cohort are close.

**Table 3:   Labour Force Projections using ABS 2016 Participation
Rates**

Persons *Number (000)*	*15-20*	*20-24*	*25-34*	*35-44*	*45-54*	*55-59*	*60-64*	*65+*	*Total*
Labour force 2002	678.5	1026.3	2221.5	2283.0	2087.2	651.6	293.9	148.6	9390.6
Projected participation rates 2016 (%)	55.4	82.0	82.5	83.2	81.5	63.1	35.7	6.5	60.5
Projected 15+ population 2016*	1355.2	1450.5	2940.6	2928.2	2976.9	1453.9	1310.1	3515.4	17930.2
Projected labour force 2016	750.8	1189.4	2426.0	2436.3	2426.2	917.4	467.7	228.5	10842.3
Percent labour force change 2002-2016	10.7	15.9	9.2	6.7	16.2	40.8	59.1	53.8	15.5
Percent labour force 2002	7.2	10.9	23.7	24.3	22.2	6.9	3.1	1.6	100.0
Percent labour force 2016	6.9	11.0	22.4	22.5	22.4	8.5	4.3	2.1	100.0

Table 4:   Labour Force Projections using ABS 2002 Actual Participation Rates

Persons Number (000)	*15-20*	*20-24*	*25-34*	*35-44*	*45-54*	*55-59*	*60-64*	*65+*	*Total*
Labour force 2002	678.5	1026.3	2221.5	2283.0	2087.2	651.6	293.9	148.6	9390.6
Projected participation rates 2016 (%)	58.7	81.2	81.0	81.2	80.2	61.9	36.5	6.3	59.8
Projected 15+ population 2016*	1355.2	1450.5	2940.6	2928.2	2976.9	1453.9	1310.1	3515.4	17930.2
Projected labour force 2016	795.6	1177.5	2381.9	2377.2	2386.4	900.1	478.1	221.5	10718.3
Percent labour force change 2002-2016	17.3	14.7	7.2	4.1	14.3	38.1	62.7	49.0	14.1
Percent labour force 2002	7.2	10.9	23.7	24.3	22.2	6.9	3.1	1.6	100.0
Percent labour force 2016	7.4	11.0	22.2	22.2	22.3	8.4	4.5	2.1	100.0

However, what if we alter the participation rates more dramatically? For example, what if we assume that female participation rates do not plateau towards 2016? The ABS does have female participation rates plateau, and this supposed effect is implicit in the rates used in Table 3. Of course, we have now begun to consider the second question posed at the start of this section. For the sake of argument suppose that female participation rates have equalled the ABS projected male rates by 2016, an obvious exaggeration that we have no reason to think will eventuate. Table 5 contains the results.

Here the difference is substantial: the 2016 Australian labour force is 1 million or thereabouts larger than in the ABS scenario. Again, however, the cohort proportions are close. Note that the divergence in projections is caused entirely by the change in female participation because the same 2016 male cohort participation rates, as used by the ABS, have been used here. It is appropriate then to enquire as to how the ABS comes up with its projected female participation rates (and the plateau effect). The answer is simple: the 'plateau effect' participation rates are solely due to the form of equation used to fit past female participation data (ABS Cat no. 6260.0, pp. 24-25, 33). This form of regression is predisposed to projecting a plateau, given the data to which it is fitted, as can be seen clearly from the best fit charts the ABS presents (ABS Cat. no. 6203.0, October 1999).

Table 5:   Labour Force Projections Assuming Equal Male and Female Participation Rates in 2016

Persons *Number (000)*	*15-20*	*20-24*	*25-34*	*35-44*	*45-54*	*55-59*	*60-64*	*65+*	*Total*
Labour force 2002	678.5	1026.3	2221.5	2283.0	2087.2	651.6	293.9	148.6	9390.6
Projected participation rates 2016 (%)	55.4	84.7	90.4	89.8	86.5	70.7	47.7	10.9	66.2
Projected 15+ population 2016*	1355.2	1450.5	2940.6	2928.2	2976.9	1453.9	1310.1	3515.4	17930.2
Projected labour force 2016	750.8	1228.6	2658.3	2629.6	2575.0	1027.9	624.9	383.2	11878.3
Percent labour force change 2002-2016	10.7	19.7	19.7	15.2	23.4	57.7	112.6	157.9	26.5
Percent labour force 2002	7.2	10.9	23.7	24.3	22.2	6.9	3.1	1.6	100.0
Percent labour force 2016	6.3	10.3	22.4	22.1	21.7	8.7	5.3	3.2	100.0

The ABS might be right, but there are grounds for thinking that they make a methodological error by using past cohort data to estimate future cohort data. Perhaps the error is not so important for men, but for women it could present serious problems. Consider what the regression method is doing in reality. It is suggesting, for example, that the behaviour of women in the 35-54 age cohort in the past 20 years can be used to predict the behaviour of women in the 35-54 cohort in the 20 subsequent years. However, the women in the 35-54 cohort in the period to 2016 were in the 15-34 cohort in the past 20 years. The women in the 35-54 cohort in the past 20 years will be in the 55-74 age group in the period to 2016. The point is that these are different groups of women. How sensible is it in times of changing attitudes and behaviours to use the older group to predict the behaviour of the younger group in the future? Certainly the younger group's attitudes towards work will partly depend on their age, and in this they will follow to some degree those who went before them. However, it is also true that we are witnessing generational change in attitudes. Younger women do have a stronger expectation of workforce participation. Indeed the ABS population projections, which include a lower birth rate than in the past, are partly shaped by this recognition.

A Simple Model for Aggregate Labour Demand

Understanding the limits of projections based on regression modelling using past data brings the argument back to the original questions of labour supply, demand and whether Australia will face an aggregate labour shortage into the

future. Let us shift focus for a while to the problem of labour demand. Traditional or neo-classical labour demand models have it that the level of labour demand is a function, at the margin, of the real wage rate and labour productivity. These models in labour economics, whatever one might think of their efficacy, are not especially relevant here. The reason is that they are comparative static models. They are 'point in time' rather than 'over time' models. The level of aggregate labour demand should instead be treated as a *derived* function of the rate of economic growth and the rate of growth in labour productivity.

Before explaining this approach there is a methodological question to answer. How well are we able to foretell what these rates of growth might be? There exists good reason to be reserved herE, just as there was above. Future conditions determining labour demand (ie, conditions derived from economic growth and labour productivity) are based on future decisions (especially future business and housing investment decisions) of which we are uncertain. These decisions themselves are made in conditions of uncertainty, as John Maynard Keynes stressed, and the conditions they produce accumulate, one upon another, to give future trends. As Keynes's contemporary, the Polish economist Michael Kalecki, put it: the macroeconomic long run is something of a figment; a series of connected short runs.

Methodologically then it is appropriate to be very sceptical of any certainty offered by aggregate forecasts, especially long run aggregate forecasts. Clearly doubts exist about the efficacy of inferential econometrics, and the year 2016 must be placed in the long run category. Nevertheless, while Keynes argued against relying on statistical inference from past data in conditions governed by uncertainty, he urged instead that we concentrate focus on the reasoned grounds we might have for thinking what the future might be. In particular, he suggested reasoned analysis of the drivers of short run decision making, especially those about business investment. Of course, the recent past will help to shape decision making and thereby shape the future, so it must be taken into account. So, too, should an understanding of history. However, the lazy determinism implicit in *relying* on statistical inference should be avoided.

The approach below will endeavour to apply these notions. If nothing else the foregoing discussion explains why it would be wrong merely to fit regression lines to the data, stretch them to 2016 and call the result reliable.

The argument here is that labour demand is a derived form of demand: derived from the level of economic growth, which itself is derived from the level of aggregate spending, which in turn depends significantly upon the level of

business investment and housing spending.[10] The task then is to explain *how* economic growth and labour productivity influence the demand for labour.

The relationship accords with the following simple equations (in which the asterisk* stands for proportionate growth from year m to year n):

$$LD^* = LD_n/LD_m$$

where:

$$LD = Y / (Y/LD)$$

for any year, and LD is the total labour force demanded (ie, employed), Y is the level of output (or GDP) and (Y/LD) is output per person employed (the appropriate measure of labour productivity in this context). Therefore:

$$LD^* \quad = [Y_n / (Y_n/LD_n)] / [Y_m / (Y_m/LD_m)]$$

$$= [Y_n/Y_m] / [(Y_n/LD_n) / (Y_m/LD_m)]$$

which is to say that:

$$L^* = Y^* / (Y/LD)^*$$

It is also to say that:

$$LD^{**} \approx Y^{**} - (Y/LD)^{**}$$

Where the L** etc, are average proportionate or percentage exponential or logarithmic growth rates per annum. These are approximately additive in these circumstances.[11]

Translated into straightforward language this means that the demand for labour will rise should the annual rate of economic growth rise by more (or fall by less) than the corresponding rise (fall) in the annual growth rate of labour productivity (or output per person). The argument *prima facie* seems reasonable, but it is necessary to point out that the above equations are identities. That is, by their nature things must turn out this way. What they do not contain are the explanations of the mechanisms that caused things to turn out the way they did. Moreover what we are interested in are 'future identities',

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[10] My views on this may be found in the working paper series at the School of Management Victoria University site, http://www.business.vu.edu.au/Management/

[11] Note that all items here are 'real'. This means that, though measured in dollars, price effects (inflation and deflation) are stripped out.

which brings us back to Keynes. We are interested in reasoned grounds, or even reasoned probabilities, to suggest why things might turn out as they might.

The first step is to examine the most obvious constraint on the growth in labour demand: the growth in labour supply. Now the argument must concern a statement such as 'what reasonable grounds are there for thinking that labour supply will grow in a supposed pattern and at supposed rate?' That case has been made and argued above. The ABS labour force projections may be used as a reasonable first proxy for labour supply growth. The reason is that they depend overwhelmingly on rather more stable population growth factors and, to 2016 at least, on the size and shape of the existing labour force. However, a caveat was noted above. The ABS might have underestimated the growth in female participation to 2016.[12] A second caveat is that labour force participation rates are sensitive to the health of the economy and generally rise and fall directly with the level of economic growth.

Table 6:   **Economic Growth, Productivity and Labour Force, Australia 1995-2002**

	GDP (chain volume measure) Y Index 1995 =100	Labour productivity Y/LD Index 1995 =100	Employment (labour demand) LD (000)	Labour supply LS (000)	Unemployment U (000)
1995	100.0	100.0	8,256	8,995	739
1996	104.2	102.8	8,364	9,115	751
1997	108.2	105.8	8,444	9,204	759
1998	113.9	109.1	8,618	9,339	721
1999	119.1	111.7	8,808	9,466	658
2000	122.5	111.6	9,068	9,678	611
2001	125.7	113.3	9,157	9,817	660
2002	130.0	115.4	9,300	9,964	663
Average annual % growth 1995-2002	*3.9*	*2.0*	*1.8*	*1.5*	*n.a.*
% growth June 2001-2002*	*3.8*	*2.2*	*2.0*	*n.a.*	*n.a.*

Sources: ABS Cat. nos 5206.0, 6202.0 and 6260.0, *RBA Bulletin* November 2002*.

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[12] It is also possible that the ABS might have erred regarding males, too, by assuming that the behaviour of the preceding generation can be used to predict the behaviour of its successor (see above).

Indeed the data given in the ABS projections for 1998-2002 fall short of the actual labour force data for those years. Therefore the actual 1998-2002 data appear below. Table 6 represents the data that captures the above equations for the years 1995-2002. It is not wise to step too far back in time. The recent past is more informative, not least because the structure of the economy before then is no longer with us. The recent past is fading, but it is closer. Average annual growth rates have been calculated from this data using exponential or logarithmic regression. As can be seen the rates are approximately additive (and the data are rounded, as well). By comparison with other Organisation of Economic Co-operation and Development (OECD) countries economic growth (3.9 percent pa) has been relatively high,[13] as has been the growth in labour productivity (2.0 percent pa).

The data in Table 6 correspond to recent figures discussed by the Reserve Bank of Australia (RBA). For example, its November 11 'Statement on monetary policy' said:

> According to the latest national accounts, real output rose by 0.6 percent in the June quarter [2002], to be 3 ¾ percent higher than a year earlier… After a period of slower growth around the middle of the year, employment increased by 0.6 percent in the three months to October, and is now 2.0 percent higher than the same period last year. Labour productivity growth measured on an output per person basis has slowed somewhat from the rapid pace recorded in the second half of last year. In the June quarter this measure of productivity increased by 0.4 percent, to be 2.2 percent higher over the year. (*Reserve Bank of Australia Bulletin*, November 2002, pp. 21, 27-28)

The relevant data are included at the last line of Table 6. The RBA warns of two potential problems in sustaining this level of output and productivity growth: the effect of the drought and a likely slowdown in housing investment spending.

Nonetheless it is reasonable to ask the question: 'what if these levels of growth were projected into the future?' My warning is that the answer is something more like a thought exercise than a forecast. The relevant effects are those on labour demand and labour supply. Chart 11 presents the trends and the labour demand data. All the data are given in Table 7, together with the average annual growth rates used. The broken line (LS3) represents continued growth in labour supply at the 1995-2002 rate, namely at 1.5 percent per annum. It is clearly unrealistic. It takes no account of underlying population trends and

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[13] See eg, any of the Reserve Bank of Australia's (RBA) statements on monetary policy for 2002.

results in a larger labour force in 2016 than there would be in the extreme situation in which female and male participation rates were equalised by that time.

Table 7:   Hypothetical Labour Demand and Supply Projections 2002-2016

	ABS labour force projections (ABS LS1)	*Adjusted ABS labour force projections (ABS LS2)*	*Labour force projections using 1995-2002 growth rate (LS3)*	*Labour demand (employment) estimate using 1995-2002 growth rate (LD)*
2002	9,831	9,964	9,964	9,300
2003	9,935	10,033	10,113	9,470
2004	10,036	10,103	10,265	9,643
2005	10,134	10,174	10,419	9,819
2006	10,230	10,245	10,575	9,999
2007	10,311	10,316	10,734	10,182
2008	10,391	10,388	10,895	10,368
2009	10,466	10,461	11,058	10,557
2010	10,538	10,534	11,224	10,750
2011	10,605	10,607	11,392	10,947
2012	10,657	10,681	11,563	11,147
2013	10,707	10,756	11,737	11,351
2014	10,757	10,831	11,913	11,558
2015	10,803	10,907	12,092	11,769
2016	10,842	10,983	12,273	11,984
Average annual % growth 1995-2002	*0.7*	*0.7*	*1.5*	*1.8*

However, we have cause to think the ABS projections, represented by the square (□) are an underestimate even though they do account for underlying population trends. First this series was constructed in 1997, and it underestimated labour supply growth to 2002. Second its participation rates are likely underestimates for two reasons: (a) a likely underestimation of female participation (as discussed above); and (b) an implicit underestimation of the effect of the sustained strength of economic growth. The latter is implicit because the ABS projections are based on past data going back to 1978. These data encompass years of low growth and the two most severe economic downturns this country has experienced since the depression. Why is this important? The reason is that participation rates are sensitive to

economic growth (sometimes spoken of as encouraged and discouraged worker effects). The adjusted ABS projections, represented by the asterisk (*), use the actual 2002 data but the same annual average growth rate as the original ABS projections, namely 0.7 percent per annum. The difference between the two series is not large.
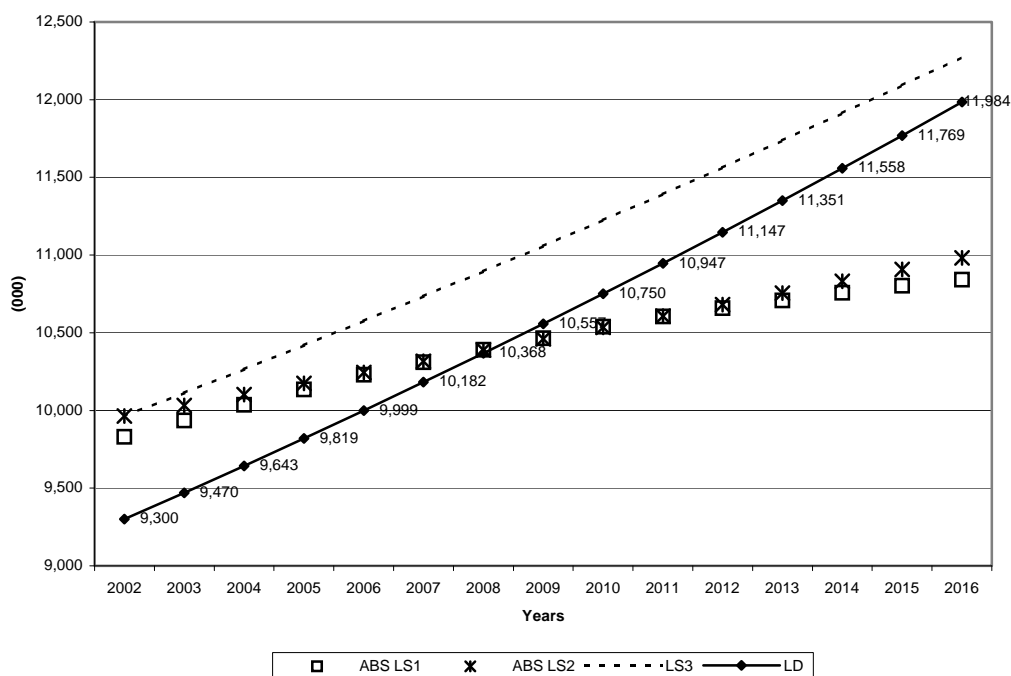

Chart 11: **Hypothetical Labour Demand and Supply Projections 2002-2016 (a)**

The estimate here for labour demand or employment, represented by the unbroken line, is based solely on the projected rate of employment growth drawn from the 1995-2002 data, namely 1.8 percent per annum. It prompts us to consider the original question directly: will Australia face an aggregate labour shortage in future years? If ABS projected rates of labour force growth are correct *and* labour demand continues to grow as it has done in the recent past then the *prima facie* answer is yes. Moreover a labour shortage can exist before the LS and LD curves cross (see 2007-08 in Chart 11). In fact some industries and sectors of the economy can be said to be facing such shortages now. There will also be a certain level of frictional unemployment at any time. Unemployment will not drop to zero.

Yet that would be to overstate the case. The reason is the variables in the simple equations above will adjust. 'Adjust' is an oddly neutral, even euphemistic, word. As we know some adjustments can be seamless, and some other adjustments can be brutal. Labour productivity is only partly an independent or technologically driven factor. Crucially it is itself a function of the rate of economic growth. When the economic growth rate is strong labour productivity grows in concert both intensively and extensively. Intensive growth follows from there being fewer gaps in the average day when demand is strong, more work is to be done and work processes are speeded up (intensified). Extensive growth – in the case of output per person – comes from people working longer hours. Typically paid and unpaid overtime increases and part-time workers work more hours or become full timers. The average working week lengthens.

If economic growth keeps on pressing the 4 percent per year mark productivity is likely to increase. This, in turn, will decrease rate of growth in the demand for labour (persons employed). Accompanying this trend of high growth will be a greater level of capital intensity of production, especially since business investment will have to be sustained at high levels for growth to continue. This, too, will increase labour productivity and dampen the increase in the demand for labour. Yet it is hard to see this being sufficient if labour supply growth is closer to the ABS level than it is to the unrealistic projection into the future of the recent past's growth rate of 1.5 percent per annum. Labour supply will likely be higher than the ABS projections but not anywhere near the unrealistic LS3 in Chart 11.

What if, on the other hand, labour supply reflects a higher level of female participation (but still lower than that for males)? Chart 12 shows this as a linear increase from the 2002 labour force level to a 11,276,600 labour force total projected for 2016 (heavy line with triangle markers). The adjusted ABS projection (*) is there for comparison, and the same labour demand as in Chart 11 is shown. The result here is clear. *Prima facie* hypothetical labour supplies run out as we approach 2010. Of course, before then the economy will have 'adjusted', most likely to lower levels of economic growth.

My answer to the labour shortage question then is this:

1   Yes, at current levels of economic growth, Australia will have labour supply problems in the future.

2   However, labour supply problems in themselves will 'masked' by economic adjustments that will occur before an absolute 'shortage' is revealed.

3   What this will entail for labour supply (and unemployment) is uncertain, depending in part on the characteristics of the adjustment process.

4   Nonetheless both the absolute levels of labour demand (employment) and labour supply (labour force) will grow to 2016.

5   Some sectors of the economy will face more severe problems earlier than others, depending in part on their level of labour demand and, especially, on their demand for specialised skills.

6   Others, whose demand for labour will not be as high, will still be able to attract the type of labour they require and or encourage retention (continued participation) of existing employees provided they are seen as 'employers of choice', to use the current buzz phrase.
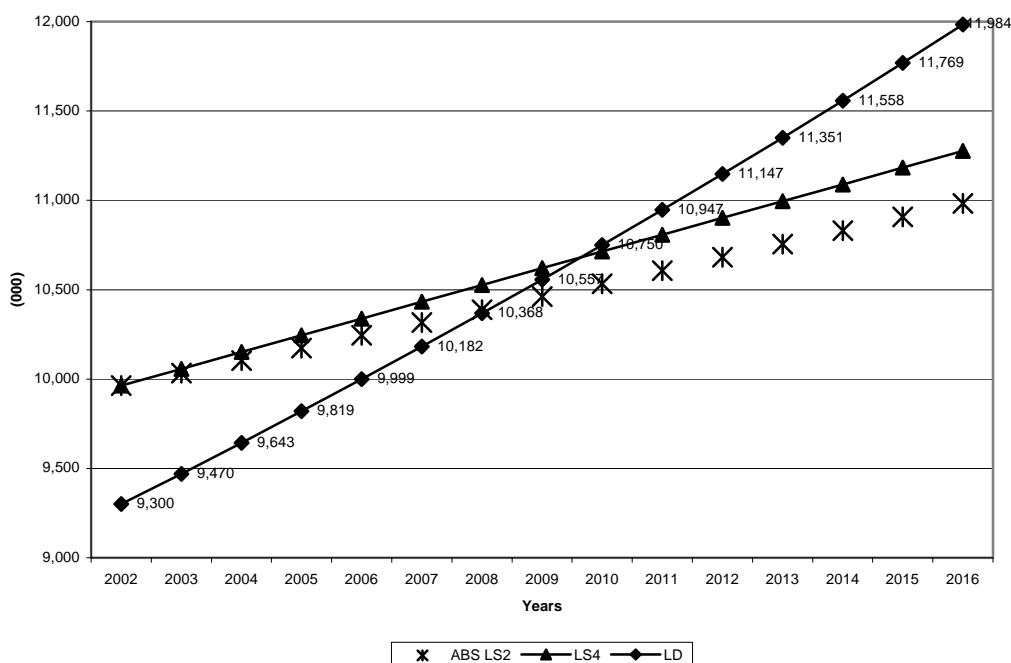

Chart 12:   Hypothetical Labour Demand and Supply Projections 2002-2016 (b)

A Postscript on the Role of Immigration

Before concluding a postscript is necessary on immigration. Immigration is too big a subject to consider properly here. Therefore this is only a brief summary. Recall that the ABS population projections, on which the labour force projections are based, are from so-called Series II. These incorporate low net immigration figures of 70,000 per year. The ABS view is that higher figures are unlikely. However, they do add that:

> Population growth from increased immigration can be achieved by a change in government policy. All other things being equal, to achieve a 1.8% increase in employment each year, Australia's net overseas migration would need to increase from 70,000 per year to 150,000 in the first year of the projection, and up to 280,000 a year by 2016. (*Labour Force Projections: 1999-2016*, p. 6)

However, imagine that net immigration were increased such that the labour force grew by an additional 50,000 in 2002. That initial figure of 50,000 would increase in each subsequent year by the level of projected economic growth used here (3.9 percent). The approach will not attempt to consider overall population increases or intakes of migrants each year. The labour supply increases here are thus derived results. The results are shown in Chart 13. The triangles represent the LS4 projection used in Chart 12, and the solid line with square markers and values represents the *prima facie* effect of increased immigration on the size of the labour force. Clearly it would have an impact.
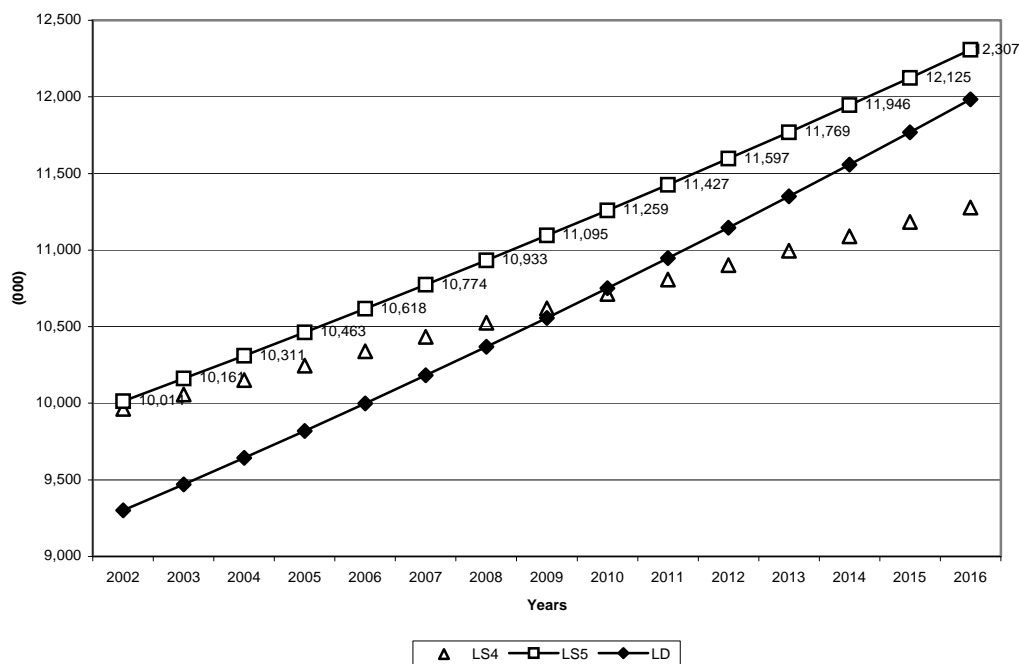
Chart 13:   Hypothetical Labour Demand and Supply Projections 2002-2016 (c)

However, there is a caveat, and it is an important one. Immigration creates its own demand. That is, new immigrants' spending has the effect of increasing the level of economic activity. The consumer goods and housing sectors, in particular, would experience commensurate increases in demand for their products. Other things being equal, then, immigration would increase the level of economic growth and labour demand *pari passu* with its effects on labour supply. Assuming a multiplier of 1 for convenience, immigrants' spending would increase labour demand (employment) to the extent of their own jobs.[14] In other words the solid line representing labour demand would shift upwards.

Yet this caveat contains its own rider. Immigration has longer term effects on labour supply by increasing the overall size of the population and the labour force. This happens as children of immigrant employees mature to working age and new children are born and do the same. Even if immigrant women's fertility rates are the same as resident women's, overall population growth will

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[14] The corollary, of course, is that new immigrants do not take the jobs of residents should the economy slow. Rather their spending sustains a higher level of growth than otherwise would have been the case.

ensure an increased labour supply over time. The words 'over time' are, alas, critical. For new children born in Australia the effect will not be felt for a minimum of 15 years. This is how immigration has helped to sustain economic growth in Australia from the 1950s. Perhaps we are now beginning to pay the price for the lower immigration levels of recent times.

Conclusion

The main conclusions of this article are straightforward, even if they go against the fashion to exaggerate the 'problem' of social and workforce ageing. Certainly the average age of the Australian population is increasing, due to lower birth rates and longer life expectancy. There is and will be a greater percentage of people in the 60 and 65 plus age groups. Yet it is an error to translate this understanding without thought to the workforce. Of course, the average age of the labour force is increasing. However, the evidence shows that this more the result of the following two factors, namely:

1   the pronounced increases in school age retention and tertiary education attendances, which have reduced workforce participation in the younger age cohorts; and

2   increased participation by women in the workforce in all cohorts, but especially in the 35-54 years.

This conclusion contradicts the popular assumption that the Australian workforce is ageing because the baby boom generation is getting older. The evidence also contradicts the received wisdom that there is an epidemic of early retirement. These effects may be observed, but they have been exaggerated.

Furthermore this article goes against the fashion also by insisting that we do not have a 'problem' of workforce ageing. In fact the data show that the proportions of the workforce in older age cohorts will not be dramatically different than they are now, even when we consider ABS predictions to the year 2016. Nor would it constitute a 'problem' even if these proportions rose. What we would have is an older workforce that would still be capable. Today we have a somewhat older workforce with an increasing female participation. The challenge we have is how to craft complex ways of enhancing the capabilities of this workforce in the future. Organisations and societies have work to be done and given workforces (both actual and potential) with which to do it. The question is how best to do it.

The issues packaged under the 'older workforce' label are really about workforce planning and renewal in changing economies. They are about all employees: younger and older. They are about recruitment, training and learning and career development; enculturation, transfer of tacit skills, knowledge and organisational values; human resources and industrial relations systems; and technological and other forms of change. They are about organisational culture as a whole: how to transmit, maintain and shape it over time. They are about gender, workforce diversity and diversity management.

None of this is to say that some organisations (eg, the public sector) and occupations (eg, some trades) do not have age related problems with which they must contend (see eg, Worland & Doughney (2002) on the Victorian electrical trades). A particular concern arises if they do have an ageing workforce profile and a strong tendency towards early retirement. Valuable skills and tacit organisational experience may thus evaporate. However, the aggregate data do not give compelling support to such a concern for the Australian workforce as a whole.

Most important, for what is loosely called 'ageing policy', the data do not support arguments for increasing the pension age or the age at which workers can gain access to their preserved superannuation entitlements. (Of course, the obverse does not hold: there is no good reason to force people to retire or to take their preserved entitlements if they do not want to.) If governments want to argue for such increases then let them bring forward their real reasons and argue solely on those grounds. Those reasons concern the neo-liberal *ideological* obsession with lower government spending and, in particular, reduced and/or 'offloaded' welfare spending.

Isn't it so perversely characteristic of neo-liberalism that its proponents should beat up a 'problem' – a 'burden', no less – out of the fact, which we should celebrate, that people are living longer? Should not we be pleased that people are more able to enjoy retirement, work until they are older if they choose and, if we devise appropriate mechanisms, engage in a creative mix of leisure, family, work and community activity? The latter mix, together with improved aged care services, is the real 'ageing' policy challenge our society faces.

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