DO IMMIGRANTS HAVE HIGHER OR LOWER LABOUR-FORCE PARTICIPATION RATES THAN THE AUSTRALIAN-BORN?

Christabel Young

Before the mid 1980s aggregate labour-force participation rates of migrants were higher than those of Australian-born people. They are now lower. Is this trend an artifact of differences in the age structure of the two populations? Christabel Young's analysis shows that it is not. The deterioration in the labour-force participation of migrants is real.

INTRODUCTION

For many years, the conventional wisdom has been that immigrants had higher labour-force participation rates than the Australian-born population, and this belief contributed to the claims about the economic benefits of immigration. However, a closer look at labour-force statistics reveals that this assumption has been incorrect for at least a decade with regard to females, and for more than 20 years with regard to males.

Aggregate labour-force participation rates are commonly used to compare the labour-force participation of the overseas-born and Australian-born in a given year and over time. While these give a rough idea of the relative status of the two populations, there are two sources of error in the interpretation of such rates. One is ignoring the effect of the different age structures of the two populations on the rates in a given year; while the other is attributing all the difference between the aggregate rates to changes in age structure when other factors are more important.

The findings from an analysis of aggregate rates, age-standardised rates and age-specific rates with respect to labour-force participation levels of the overseas-born and the Australian-born are described in this paper. The first and third sets of rates are published by the Australian Bureau of Statistics, while the second set has been derived from published ABS figures.

The differences between the aggregate rates of the overseas-born and the Australian-born in a given year and the trend in these differences over time, are a function of the differences in age structure of the two populations and the differences between their age-specific labour-force participation rates (which are a measure of the underlying levels of labour-force participation of the two populations). Thus, in a comparison of the experience of two populations, a favourable age structure for one population can produce a higher aggregate labour-force participation rate, even if its underlying age-specific labour-force participation rates are nearly the same or lower compared to the other population.

As described by Young,2 because the overseas-born population generally has a lower proportion of its population at the young adult ages, the usual effect of an aggregate rate for them is for it to overstate the underlying level of labour-force participation. Occasionally, authors who use aggregate rates to compare the labour-force participation of Australian-born and overseas-born people acknowledge that the apparently higher participation of the overseas-born is partly due to the different age structures of the two populations, but they seldom quantify this or try to find out how much of the difference would remain after the age-structure effect is removed.

As Figure 1 shows, aggregate rates show higher labour-force participation among the overseas-born compared with the Australian-born in the 1970s, a decrease to virtually no difference at around 1984 for women and at around 1985 for men, and then a reversal thereafter, so that by 1994 the aggregate rates for overseas-born men and women are lower than for the Australian-born. Over the period 1972 to 1994, the labour-force participation rates of overseas-born males change from being five per cent higher than for the
Australian-born males in 1972 to seven per cent lower in 1994, while the rates for overseas-born females change from being 17 per cent higher than for Australian-born females in 1972 to 14 per cent lower in 1994 (see Table 1).

How have various authors interpreted these rates? One interpretation of aggregate rates by Norman and Meikle, in the 1985 CEDA/DIEA study is that 'on average migrant workers tend to exhibit higher rates of participation in the workforce (by some seven to eight percentage points) largely because of their high concentration at the working ages'. However, the seven to eight percentage points referred to applied only to females and only to the 1970s; the 1970s difference for males was only three to four percentage points, and by 1983 the differences in labour-force participation between the Australian-born and the overseas-born were only around one percentage point for both males and females. Thus, although acknowledging the influence of age structure, these authors also chose to emphasise the year in which the differences were highest rather than the most recent year.

Various authors have observed the decrease over time in the aggregate rates of labour-force participation of the overseas-born in relation to those of the Australian-born, but they have generally attributed this apparent reversal to demographic change, rather than considering the possibility of changes in the underlying participation rates of the two groups. Consequently, the deteriorating level of labour-force participation of the overseas-born compared with the Australian-born over time has been variously attributed to 'a changing age structure within migrant arrival; towards a concentration upon 25-44 year old immigrants away from 20-24 year olds' (Chapman et al.); an increase in the period of residence of the overseas-born (Meikle); 'the changing composition of the migrant intake' (Wooden); and 'the increasing proportion of the overseas-born entering the retirement ages' (ABS Brisbane), which is part of the explanation, but not the full story.

In referring to two studies funded by the Bureau of Immigration and Population Research (BIPR), by Foster and Baker and Ackland and Williams, Wooden acknowledges that the aggregate labour-force participation rates of the Australian-born are now well above those of the overseas-born but names 'demographic structure' as well as poor English skills of non-English-speaking-background (NESB) migrants as an explanation. While Foster and Baker initially suggest that the increasing proportion of family reunion in the migration program may be an explanation, they then dismiss this idea, and conclude that 'the explanation is more likely to lie in broader demographic shifts'.

Therefore, it is useful to find out how much of the difference in a given year and how much of the trend over time in the differences between the two groups remains after age-structure effects are taken into account. There are two ways of doing this: one is to look at age-specific labour-force participation rates, and the other is to derive an overall index which is standardised by age.

**AGE-STANDARDISED LABOUR-FORCE PARTICIPATION RATES**

In age standardisation, a set of age-specific labour-force participation rates for the overseas-born or the Australian-born in a given year is applied to a standard age structure to derive a age-standardised overall rate.
Table 1: Trend in aggregate and age-standardised labour force participation rates at ages 15 years or more from 1972 to 1994 and relationship between the experience of the overseas-born and Australian-born

<table>
<thead>
<tr>
<th>Year and characteristic</th>
<th>Australian-born males</th>
<th>Overseas-born males</th>
<th>Australian-born females</th>
<th>Overseas-born females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggregate labour force participation rates at ages 15 years or more</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>1972 (%)</td>
<td>82.3</td>
<td>86.7</td>
<td>39.7</td>
<td>46.3</td>
</tr>
<tr>
<td>1994 (%)</td>
<td>75.9</td>
<td>70.6</td>
<td>55.4</td>
<td>47.9</td>
</tr>
<tr>
<td>Ratio 1994/1972</td>
<td>0.92</td>
<td>0.81</td>
<td>1.40</td>
<td>1.03</td>
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<tr>
<td>Ratio overseas-born</td>
<td>1.05</td>
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<tr>
<td>Ratio Australian-born</td>
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<tr>
<td>1972 (%)</td>
<td></td>
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<td>1994 (%)</td>
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<td>Ratio 1994/1972</td>
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<tr>
<td>Age-standardised labour force participation rates at ages 15 years or more</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1972 (%)</td>
<td>82.0</td>
<td>83.0</td>
<td>36.0</td>
<td>42.5</td>
</tr>
<tr>
<td>1994 (%)</td>
<td>75.3</td>
<td>69.2</td>
<td>54.0</td>
<td>47.6</td>
</tr>
<tr>
<td>Ratio 1994/1972</td>
<td>0.92</td>
<td>0.83</td>
<td>1.50</td>
<td>1.12</td>
</tr>
<tr>
<td>Ratio overseas-born</td>
<td>1.04</td>
<td></td>
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<td>Ratio 1994/1972</td>
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The age-standardised labour force participation rate is a refinement of the aggregate rate, in that it is a single index which describes the level of labour-force participation over the whole age range, independent of the age structure of the population. While age-specific labour-force participation rates are the best way of describing the underlying levels of labour-force participation in each age group, sometimes it is useful to have such a single index. In particular, the age-standardised rate eliminates both the effect of changes in age structure over time, and age-structure differences between the overseas-born and the Australian-born. The 1991 Census age structure of males and females in the total population was used as the ‘standard’ to derive age-standardised labour-force participation rates. As an example, the age-standardised rate among overseas-born men in 1994 is derived in the following way:

(a) multiply the age-specific labour-force participation rate of overseas-born men at ages 15-19 years in 1994 by the number of males at ages 15-19 years in the total population at the 1991 Census;
(b) repeat this process for each age group from 20-24 to 60-64 years and for 65 years and over; and
(c) sum the results of each multiplication, and divide this sum by the total male population at ages 15 years and over in 1991 to derive the age-standardised rate of labour-force participation of overseas-born males in 1994.

Similarly the age-standardised rate for Australian-born men is also derived by relating their age-specific rates to the age structure of the total male population in 1991. The same process is carried out with the rates for overseas-born females and Australian-born females in relation to the total female population in 1991. Accordingly, the effect of the differences between the age structures of the overseas-born and the Australian-born in a given year, and over time, are removed. The age-standardised rate thus summarises the differences in underlying levels of labour-force participation only.

Age-standardised rates over the age-range 15 years and over for Australian-born men and women and for overseas-born men and women are shown in Figure 2 and Table 1. According to the age-standardised rate, the labour-force participation rate of overseas-born males exceeded that of Australian-born males only in 1972 and only by one per cent, and not the five per cent suggested by the aggregate (unstandardised) rate. Moreover, Australian-born males have had higher age-standardised labour-force participation rates than the overseas-born over since 1974, reaching a difference of eight per cent higher in 1994. By 1994, the age-standardised labour-force participation rate of Australian-born males had declined to 92 per cent of the
1972 level, but that of overseas-born males had declined even more to 83 per cent of the 1972 value.

In contrast, partly because of the odd age pattern of female labour-force participation, the relative position of Australian-born and overseas-born females during 1972 to 1994 is similar for both the age-standardised and the aggregate rates. Initially the age-standardised rates of overseas-born females were 18 per cent higher than for Australian-born females. The situation reversed in 1985-86 (in 1984 with aggregate rates), and by 1994 the age-standardised rates of Australian-born females exceeded those of overseas-born females by 12 per cent. Over the 1972-94 period, labour-force participation rates of overseas-born women increased slightly by 12 per cent, but those of Australian-born women increased more rapidly, by 50 per cent. In 1994 the age-standardised labour-force participation rate of overseas-born females was 88 per cent of that of Australian-born females (see Table 1).

There are two important observations from Figures 1 and 2 and Table 1. First, the broad trend in the aggregate rates is not a great deal different from the broad trend in the age-standardised rates, and this means that the changing age structure of the overseas-born population is not the reason for either the deterioration in the level of its labour-force participation or for the deterioration in its position relative to the Australian-born. Second, the correction for age-structure differences reveals that the underlying labour-force participation of overseas-born men was only ever greater than that of Australian-born men by one per cent.

**AGE-SPECIFIC LABOUR-FORCE PARTICIPATION RATES**

Because, as demonstrated above, changes over time in the relative labour-force participation of the overseas-born compared with the Australian-born, cannot be explained by changes in their age structure, the explanation has to lie in changes in their underlying age-specific labour-force participation. In addition, an analysis of age-specific labour-force participation rates will show in which age groups the largest changes occurred.

Age-specific labour-force participation rates describe the underlying level of labour-force participation, and, by definition, are independent of any effect of favourable or unfavourable age structures. Age-specific labour-force participation rates of the Australian-born and overseas-born populations (and separately for males and females) are published by the Australian Bureau of Statistics as part of its regular Labour Force Surveys. The rates are usually calculated for five-year age groups at the extreme ages (15-19, 20-24, 55-59 and 60-64 years) when participation is increasing or decreasing rapidly, and for ten-year age groups at the central adult ages, where participation is more stable.

As an example, the age-specific labour-force participation rate at ages 20-24 years among overseas-born males in 1994 is equal to:

The number of overseas-born men at ages 20-24 years in the labour force in 1994 divided by the total number of overseas-born men at ages 20-24 years in 1994, multiplied by 100 and expressed as a per cent.

To illustrate the relationship between the labour-force participation of the overseas-born and Australian-born, the ratio of the age-specific rate for the overseas-born to the
The overseas-born were only ever higher than those of the Australian-born at ages 60-64, 55-59, 45-54, and briefly at 35-44 years. Moreover, since the mid-1980s the age-specific labour-force participation rates of overseas-born men have been lower than those of the locals at all ages except occasionally at 55-59 and 60-64 years.

Among women, throughout the 1970s, the labour-force participation rates of the overseas-born were only ever higher than those of the Australian-born at ages 60-64, 55-59, 45-54, and briefly at 35-44 years. Moreover, since the mid-1980s the age-specific labour-force participation rates of overseas-born men have been lower than those of the locals at all ages except occasionally at 55-59 and 60-64 years.

Overall, among men, during 1972 to 1994, the labour-force participation rates of the overseas-born were only ever higher than those of the Australian-born at ages 60-64, 55-59, 45-54, and briefly at 35-44 years.

Among women, throughout the 1970s, the labour-force participation rates of the overseas-born were only ever higher than those of the Australian-born at ages 60-64, 55-59, 45-54, and briefly at 35-44 years.
overseas-born were higher than those of the Australian-born at all adult ages, although only briefly at ages 15-19 and 20-24 years. However, after the mid-1980s, the situation was reversed, and overseas-born women have had lower rates at all ages compared with the locals.

Quantifying the changing relationship between age-specific labour-force participation rates of the Australian-born and overseas-born is less difficult than finding explanations for the deterioration in the relative position of the overseas-born from 1972 to 1994. As noted earlier, Foster and Baker suggested the increase in NESB immigrants or the increasing proportion of family-reunion migrants in the migration program could be reasons. But other explanations are possible. Is the deterioration also due to the worsening employment situation in Australia in the 1980s and 1990s, which might have led many migrants to leave the labour force? Has the arrival of elderly parents, as part of family reunion, affected the labour-force participation rates at the older ages? Have increasing numbers of overseas-born students affected the participation rates at ages 15-19 and 20-24 years? Is the deterioration among the participation of overseas-born women due to the changing birthplace composition of the migrant intake and the different status of women in the new source countries of immigrants? Or, perhaps, were Australian-born women still going through a transition to higher labour-force participation in the 1970s and 1980s, a transition that their overseas-born counterparts had gone through already either in their source countries or possibly as a result of the process of migration? These are but some of the possibilities to explain the deterioration in the relative labour-force participation of the overseas-born compared with the Australian-born.

CONCLUSION

Many studies of the socioeconomic status of the overseas-born compared with Australian-born are based on aggregate rates, rather than age-specific rates or age-standardised rates, and thus neglect to take account of the effect of differences in age structure. Or, what is worse, many ignore the effect of age-structure differences when the overseas-born appear to have a higher status than the
Australian-born, but then invoke the possibility of age-structure effects when the relative status of the overseas-born is lower or declining.

The treatment of labour-force participation rates is a particular example of this tendency. In particular, despite evidence that aggregate labour-force participation rates of the overseas-born are now substantially below those of the Australian-born, many commentators attempt to explain this by alluding to changes in demographic structure rather than acknowledging that the underlying labour-force participation of the overseas-born has indeed become lower than that of the Australian-born. Age-specific rates and age-standardised rates demonstrate that this deterioration persists even after we control for differences in age structure. Moreover, age-standardised rates show that the labour-force participation of overseas-born men was never more than one percentage higher than that of Australian-born men, right from the early 1970s.

Following on from this is the question whether, in the future, higher immigration might actually reduce the underlying level of labour-force participation of the total population rather than increase it, contrary to the common assumption in many economic forecasts.

References

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13. Foster and Baker, op. cit.