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China's Demographic Transition and the Impacts on Migrant-Receiving Countries: Australia as an Example

(DRAFT, PLEASE DO NOT QUOTE)

Fei Guo
Department of Business
Faculty of Business and Economics
Macquarie University
Australia
Email: fguo@efs.mq.edu.au

Xiujian Peng
Centre of Policy Studies
Monash University
Australia
Email: Xiujian.Peng@buseco.monash.edu.au

INTRODUCTION

China is currently experiencing the stage of demographic transition in which the age structures of its population as well as the labour force are at the "optimum" stage – with smaller proportion of young population and still a much smaller proportion in the elderly age groups, which are mainly resulted from rapid and sustained fertility decline in the past three decades. The overall dependency ratio in China has been considerably lower than that in most industrialised countries, including Australia. In 2007, the overall dependency ratio in China was only 38.9 dependent persons per 100 labour force participation age persons, compared with 49.3 in Australia in the same year. More specifically, the young and aged dependency ratios were was 27.8 and 11.1 respectively in China while 29.9 and 19.4 respectively in Australia in 2006 (Population Reference Bureau, 2007). It has been argued by a number of scholars that China's recent rapid economic growth was contributed partially by its advantageous population age structure, which is described as the first "demographic dividend" that the country has been profiting in recent years (Wang and Mason, 2007; Mason and Lee, 2006; Peng, 2005; Pool, 2004; Wang and Yao, 2003). This favorable age structure, resulted from the Chinese demographic transition, has contributed to 15-20% of economic growth and 5-21% of savings rate in the reform era. With acceleration of population ageing, however, it is also estimated that China's first demographic dividend will be depleted in the middle of second decade of the 21st century, if not sooner (Cai and Wang, 2006).

Following the sustained low fertility in the past and future decades, China's population will soon experience rapid ageing process, which will be at a pace that no other developed or developing nations have ever experienced. Limited available studies suggest that China's policy-makers have started to become aware that they need to respond to the demographic changes effectively and implement elderly support policies that could facilitate accumulating assets and capital, which in turn could potentially yield the "second demographic dividend"

(NDRC, 2007; Mason and Lee, 2006; Wang and Mason, 2005; Golley and Tyers, 2006).

Australia has been taking in migrants, especially in the category of skilled migrants, from China in recent decades. The number of Chinese migrants (permanent settlers and long-term arrivals) to Australia has been increasing, with slight fluctuations in some years. Among all Chinese migrants, the majority came in the category of skilled migrants. In the recent decade, an increasing number of Chinese students came to Australia to study in various levels of Australian educational institutions, mostly in higher educational institutions. Some students have later on opted to stay on in Australia as permanent settlers and some have chosen to return to China. Australia has profited twice in this process, lucrative revenue from exporting education and at the same time producing and importing skilled workers for domestic labour market. It is argued that the increasing number of Chinese students studying overseas, including Australia, was a direct result of its recent rapid economic growth that is partially contributed by its "first demographic dividend" resulted from advantageous age structure. Parallel to China's rapid economic growth is the formation of the middle and upper middle classes who are still in prime age of labour force participation and are able to accumulate wealth in a very short period of time. Chinese students currently studying in Australian educational institutions are the offspring of these middle and upper middle class in China. Their parents' income and wealth are the main sources to pay for their study overseas, including Australia. This is also a reflection of the pattern of China's intergenerational wealth transfer in the "first demographic dividend" period identified by Wang and Mason (2005), in which the resources are mainly reallocated from working generations to children.

Like other East Asian populations, China could experience a "second demographic dividend" in the near future, depending on the implementation of effective state policies and mechanisms. The second demographic dividend is generated in the process of anticipating forthcoming ageing through deepening

capital by increasing savings rates and accumulating physical wealth and investment. Studies about the second demographic dividend in the East Asian region, including China, have suggested that in this process more resources will be reallocated from the working population to the elderly dependents rather than to young dependents (Wang and Mason 2007; Mason and Lee, 2004).

Can Australia continue to benefit from China's second demographic dividend in the same way it benefits China's first demographic dividend?

This paper offers a preliminary assessment on the current knowledge on the changing age structure, especially changing dependency ratios, on China's domestic labour market, and subsequently on the export of students and skilled labour to other countries, including Australia. In addition, this paper proposes a new research agenda that would make a contribution to the knowledge in this area.

Demographic Transition and Demographic Dividend in China

China has completed demographic transition in a very short period of time (see Figure 1 for population age structure in China from 1990 to 2030), initially experiencing reduction in mortality in the early decades of the People's Republic, and subsequently rapid reduction in fertility since late 1970s largely contributed by its radical and ambitious family planning program. The first demographic transition resulted in rapid population growth, which was followed by much slower growth in recent years as a result of dramatic fertility decline. The total fertility rate in China has reached to below replacement level, from more than 5 in the 1960s to 2.1 in the early 1990s, and to around 1.5 in 2000, which is even lower than many OECD countries (Zeng, 1996; Feeney and Yuan 1994; Zhang, 2003). However, the China's fertility has not declined uniformly across its vast geographic regions, especially between its urban centers and countryside. The total fertility rate in Shanghai was only 0.87 in 1999, which is among the lowest in

the world (Yuan, 2003). A number of other cities also shared a similar experience. Urban areas as a whole have reached a very low fertility level, with a total fertility rate of 1.13 children per woman in the late 1990s (Yao, 1995). The countryside in China, on the other hand, has experienced a less dramatic fertility decline. It was estimated that the total fertility rate in China's rural areas was about 2.0 children per woman in late 1990s (Tu, 2000). The shortage of labour in many Chinese urban centers and advanced coastal regions, which is a result of sustained fertility reduction in the past three decades, has been an important driving force for the massive rural to urban migration that have been observed in recent decades.

Studies show that the current rapid economic growth in China has been largely contributed by its abundant supply of labor force participation age population. It was estimated that the Chinese demographic transition has contributed to 15-25% of economic growth and 5-21% of savings rate in the reform era (Cai and Wang, 2006). This is what Wang and Mason called the "first demographic dividend" (Wang and Mason, 2005) which refers to the demographic advantages associated with the "boom" generation produced in the process of demographic transition from high to low rates of mortality and fertility. This is the generation that is larger than those immediately before and after it, and currently working its way through nation's age structure (Bloom, *et al.* 2002). The first demographic dividend comes from changes in population age structure that increases the share of population concentrated at the labour force participation ages.

The first demographic dividend is also viewed as the effect of labour supply on economic growth. Since the late 1970s, the size of the labour force participation population or economically active population) steadily increased and at the same time, labour force participation rate also increased, from 71% in late 1970s to about 82% in 2004. In recent decade, despite drastic economic reforms that re-structured and privatized state-own enterprises and transformed the employment structure, China's economic growth has led the growth of employment both in

urban and rural areas. Consequently, economically active population, level of employment and level of labour force participation all increased at the same time (Cai and Wang, 2006).

By comparing the dependency ratio (the ratio of the number of children and elderly to the number of working-age population) and support ratio (the ratio of the number of producers to the number of consumers), Cai and Wang (2006) projected that China is able to benefit its demographic dividend until 2013. After that the margin of the dividend will gradually reduce and eventually the dividend will be come demographic debt. An increase in support ratio combined with a decline in dependency ratio would yield demographic dividend in China in the period between the mid-1960s to early 2010s. When the dependency ratio start to increase and the support ratio starts to decline, the margin of demographic dividend will reduce and demographic debt will start to show (see Figure 7).

Using a slightly different measure, others suggested that the projected duration of China's first demographic dividend may go on to 2030. China's total dependency ratio has been declining since 1970s. In 1990, it reached below 0.5 (or 500 dependent persons per 1000 labour force participation age persons), which is considered a "golden age structure". It is projected that this low overall dependency ratio will last until 2030. After that the dependency ratio will rise to above 0.5, as population aging drives up the old age dependency ratio (Peng, 2005).

The severe impacts China's current low fertility rate will not show until the time when the generations born in recent decades reach to labor force participation ages while their parents generations move up to retirement ages. As a result of more than three decades of low fertility, China will inevitably experience substantial population ageing in the very near future. In 2000, the proportion of the population aged 65 and above was 6.92% (78 million), by 2020 it is projected to increase to 11% (161 million), and by 2050 this figure is expected to rise to

21% (307 million) (Du and Tu, 2000). As suggested by Wang and Mason (2005), the arrival of the demographic dividend coincided with China's recent economic boom, which further fuels an already rapidly growing economy. An abundant supply of labour, combined with relatively small shares of younger and older dependents, contributed to the rapid economic growth and improvement of living standard in China. They, too, suggested that the first dividend is transitory and will soon be exhausted. China's unprecedented rapid decline in fertility also means that it will experience a more rapid process of population ageing in the near future. However, if appropriate policy and institutional mechanisms are in place, China could have a possible second demographic dividend because changes in age structure can influence the process that lead to the creation of wealth. If China could achieve what other East Asian countries have achieved, the period leading up to population ageing could lead to rapid accumulation of capital. As defined by Mason (2007), the same demographic forces that produced an end of the first dividend may lead to a second demographic dividend. It is delivered through society's increase in saving rates and accumulating greater physical wealth or capital in responding to the forthcoming population ageing.

Wang and Mason (2005) constructed the changes in the patterns of resource reallocation as a result of changes in population age structure in the next 50 years in China. They demonstrated that the changes in population age structure will lead to a substantial decline in the resources that must be reallocated from working generations to children and a substantial increase in the resource that must be shifted from workers to the elderly (see Figure 9).

As indicated by Wang and Mason's projection in Figures 8 and 9, the current pattern of resource reallocation is mainly from workers to their children dependents. A relatively small number of children, who were born after the fertility decline, are supported by a relatively large number of parents who were born in the decades of high fertility in 1950s and 1960s, and who are still in

labour force participation ages. Before the ageing problem becomes severe, the reallocation of resource from workers to elderly remains relatively small in China.

While experiencing demographic transition and benefiting from the first demographic dividend, China has also experienced rapid economic growth and a speedy formation of the middle and upper-middle class who are still in their prime ages for labour force participation and are able to accumulate wealth in a very short period of time. In addition to improving their living standards, Chinese families, middle class or otherwise, would spend a substantial proportion of their income on their children's education. Sending their children to study in overseas educational institutes becomes possible for many middle and upper-middle class Chinese families in recent decade. It is under this social and demographic background that the linkage between China's demographic dividend and Australia's benefit could be explored. To this date, there hasn't been any study to investigate and establish this important link and to generate updated understanding of the impacts of demographic transition in China on Australia, especially through receiving students from China, and also through taking on more young and skilled migrants.

Australia's benefitting from China's demographic dividend – so far so good

Similar to other industrialized countries with sustained low fertility, Australia has relied, and will rely on international migration to supplement its domestic labor market (McDonald and Kippen, 2001; Khoo, Voigt-Graf, McDonald and Hugo, 2007; McDonald, 2007; Birrell, Rapson and Smith, 2005). In recent decades, Australia has taken in an increasing number of migrants, especially in the skilled category, from the Asian region, including China. The number of Chinese permanent migrants (settler arrivals) to Australia has been steadily increasing since the late 1980s (see Figure 4). In 1986-87, China was the tenth largest migrant-sending country with only 2,693 persons and accounting for 2.4% of all

settler arrivals of that year. In the period from 1996-1997 to 2004-05, China was the third largest migrant sending source country after the traditional source countries New Zealand and United Kingdom. The most recent figures indicate that in 2006-07, China was the fourth largest migrant sending source countries (12,009 persons and 8.6% of total settler arrivals), after UK, NZ and India (Department of Immigration and Citizenship, 2007). A greater proportion of skilled migrants from China have come to Australia than that of the total migrants (e.g. in 2003-04, 53.3% of settler arrivals from China were skilled migrants while 46.2% were in the same category among all settler arrivals). Consequently China-born population has became the largest Asian-born group in Australia numbering more than 181,000 or close to 1% of the total Australian population by 2004 (Hugo, 2006). In the decade from 1996 to 2006, the number of China-born people in Australia has increased substantially. The notable age groups are aged 15-19, 20-24, 25-29, and 40-49. The age groups that experienced most remarkable increase, in terms of number and proportion, are aged 15-19 (secondary/high school aged) and 20-24 (mostly tertiary education students) (Figures 2 and 3).

Another, more profound, phenomenon is that in recent decade, an increasing number of Chinese students have entered to Australia to study at various levels of educational institutions, mostly in higher educational institutions. The number of Chinese students[1] in Australia increased almost six times between 1999 (7,411) and 2005 (43,367) and the proportion that they made up of the Australian overseas student population increased from 6.1% in 1999 to 20.3% in 2005. The total number of Chinese students more than trebled between 2002 and 2005 (Hugo, 2006). In 2006-07, the total number of Chinese student arrivals further increased to reach 73,191 and accounted for 20.9% of total overseas student arrivals (Department of Immigration and Citizenship, 2008). Some students have later on opted to stay on in Australia as permanent settlers and some have

[1] The numbers of Chinese students referred in this document exclude students from Hong Kong and Taiwan.

chosen to return to China (Guo, 2007). Australia has profited twice in this process: lucrative revenue from exporting education and at the same time producing and importing skilled workers for the domestic labor market. The increasing number of Chinese students studying outside of China, including those in Australia, has been a direct result of the recent rapid economic growth and improvement of economic status (Yao, 2004). This status has in part been influenced by China's "first demographic dividend" resulting from the advantageous age structure as mentioned above. Parallel to China's rapid economic growth is the formation of the middle and upper-middle classes who are still in their prime ages for labor force participation and are able to accumulate wealth in a very short period of time. Chinese students currently studying in Australian educational institutions are mostly the children of these middle and upper-middle class in China. Their parents' income and wealth are the main sources that pay for their study in other countries, including Australia. This economic support is also a reflection of the pattern of China's intergenerational wealth transfer in the "first demographic dividend" period identified by Wang and Mason (2007), in which the resources are mainly reallocated from working generations to their children.

However, as indicated in the previous section, the first demographic dividend in China will not last forever. It is projected that it will end sometime in the next decade or two. When the dependency ratio starts to increase and support ratio start to decline, the demographic dividend will gradually reduce and eventually demographic debt will start to take place. This would be the time when the proportion of elderly increases to the extent that the reallocation of resource to elderly become dominant. According to the United Nations medium variant projection (UN, 2007; Peng, 2005), the rapid fertility decline in China has caused a considerable decline of 5-15 years old school-aged population after 2005, and will also cause a sizeable reduction of 15-24 years old population, who would be likely in high school, tertiary educational institutes, or in the early stage of labour

force participation. More importantly, their proportion of total population will reduce dramatically in the next two decades or so (Table 1).

The question here is whether a large number of Chinese families are still able and willing to send their children to study in overseas, and whether a large number of young skilled people still want to migrate to overseas, including countries like Australia, when the social and demographic climate change remarkably. In a decade or two, China's population will be ageing very quickly, reallocation of resources will soon shift from predominantly to young children to largely to elderly population, and the total size (and proportion) of school aged and young adult population will reduce substantially. All available evidence indicates that China's first demographic dividend will exhaust in the near future. If China could implement appropriate policy and mechanisms in response to its forthcoming ageing problem by accumulating capital and investing, it may yield the second demographic dividend.

The Australian academic community, policy-makers and general public have not been fully informed of the changing demographic reality of China and have not developed a comprehensive understanding on how to continue to benefit from China's "demographic dividend" in the future. Research on Australia's "demographic gift" (Jackson, 2003), population ageing and national saving (Guest and McDonald 2001) mainly consider Australia's own population structure. Australia's current policies and practices in relation to migration and the internationalisation of education focus on Australia's current labour market needs and have not taken into full consideration migrant-sending countries' stages of demographic transition. Australia seems to be an accidental beneficiary of China's first demographic dividend by receiving large number of Chinese students and number of young skilled migrants from China.

It is not clear to this date whether we have enough knowledge about the relationship between China's demographic transition and Australia's international

student and skilled migrant intake in the future. With steady decline in school aged population in the next two decades, China would be able to invest more on education per capita, which may lead to increased quality of its educational institutions and therefore increased international recognition, which may decrease the value of overseas qualifications. Australian tertiary educational institutes have increasingly relied on the incomes brought in by international students, including a substantial proportion of Chinese in recent years. In order to formulate effective policies and practice, Australian universities need to be informed of the remarkable demographic change in China and associated profound consequences. The reduction in school-aged population and young labor force participation age population in China may also lead to an increase in demand for labor domestically, and subsequently increase in domestic salary and income, which may discourage people from migrating to overseas. Australia's current immigration policy targeting Chinese skilled migration, for example, would have to be revamped substantially when all potential skilled migrants are from the generations after the "one-child" policy. Accepting one skilled migrant would mean accepting a pair of elderly parents some years later, which would potentially contribute to the worsening of population ageing in Australia. Further comprehensive studies investigating the impacts of changing age structure of China's population on the Australia's potential migrant intake from China are much needed.

DISCUSSION AND FUTURE STUDY

As the demographically most important country, China not only influences the world economy by importing and exporting goods and commodities, but also by producing an increasing amount of international migration, mostly as skilled workers or as young students who might later settle permanently in receiving countries. As one of the major migrant-receiving countries, Australia needs to establish a solid understanding of the changing demographic landscape in China, which will potentially impact on the changing demographics of Chinese migrants

and students that Australia has received in a large numbers since the late 1970s. The bourgeoning of China's middle and upper middle classes, coupled with an abundant supply of labor-force-participation-age population, provides unprecedented opportunities for countries like Australia to establish strategically oriented policies through which they could profit from exporting education, and at the same time, importing skilled labor. The results from such study will provide a comprehensive analysis linking Australia's internationalization of education to its migration patterns and their relationship to changing demographics in migrant-sending countries, such as China.

Existing studies focusing on "demographic transition" and "demographic dividend" have tended to limit the impact of demographic structure on social and economic development within one country or one region (Bloom *etc*, 2003; Pool, 2004; Wongboonsin, Guest and Prachuabmoh, 2005; Turra and Queiroz, 2007; Wang and Mason, 2007; Ogawa, Kondo and Matsukura, 2005). A recent study on demographic change in Japan indicated that the unprecedented fertility decline after WWII resulted in a substantial shift in personal resource allocation away from childrearing and induced a rapid accumulation of physical capital in the 1950s, which in turn provided a strong base for achieving Japan's phenomenal economic growth from the late 1950s to the early 1970s (Ogawa, Kondo and Matsukura, 2005). Similarly, South Korea also benefited from the demographic transition that produced a relatively young population and growing labour force during the second half of the 20th century. The baby-boom generation born in the early stage of demographic transition conferred a demographic dividend that helped drive the nation's rapid economic development (Phang, 2007). However, studies of other Asian countries, such as Indonesia and Thailand have indicated that a demographic dividend may not be automatically realised. Government policies play an important role in facilitating the increase of productivity and extending the period during which a potential demographic dividend is experienced (Wongboonsin, Guest and Prachuabmoh, 2005; Ananta, Nurvidya and Bakhtiar, 2005).

Very few studies have attempted to relate demographic changes in one population to another through migration. Using Shanghai as an example, Peng and Cheng (2005) examined the role of rural-to-urban migration in harvesting the demographic dividend in urban and rural areas in China. This study confirmed that migration is bridge to match the conditions of harvesting demographic bonus in both sending and receiving areas. Migration can prolong the time span for harvesting the demographic bonus in the urban areas while providing opportunities for the poor rural areas to be able to harvest the demographic bonus, thus resulting in a win-win situation. As the migrant population ages in receiving areas, the benefit will diminish gradually and the demographic window of opportunity will close in the future. Shanghai's population age structure is similar to that of most of industrialised countries with a very low fertility rate since the late 1970s, a rapidly ageing local population, and labor conditions heavily reliant on migrant labor from rural areas. Other relevant recent migration studies in China (e.g. Guo, 2007; Roberts, 2007) touched upon the issues of internal migration, but without any analysis linking demographic transition and changes in one population to another through international migration.

This paper asks more questions than offering answers. It is hoped that this paper could stimulate debates about China's demographic transition and its implications for Australia's skilled and international student migration programs.

This is a starting point of a more comprehensive study that will include a component using a dynamic computable general equilibrium (CGE) model of Chinese economy – MCHUGE[2] to predict the macroeconomic consequences and labor market impacts of demographic change in next few decades in China. The impacts of China's changing emigration pattern, with a particular focus on skilled and student migration, on the Australia labor market and economic growth will be simulated.

[2] MCHUGE model was developed by the Centre of Policy Studies (CoPS), Monash University.

A projection of international migration from China to Australia, including students and skilled migrants, into future decades will be carried out using data from Department of Immigration and Citizenship (DIAC) and Australian Bureau of Statistics (ABS). The settlement patterns and labor market outcomes of Chinese migrants in Australia will also be examined through analyzing the DIAC's Longitudinal Survey of Immigrants to Australia (LSIA). Data from Graduate Careers Australia's (GCA) Australian Graduate Survey (AGS)[3] will be used to analyze the patterns of labor force participation of university graduates, including Chinese students who choose to settle down in Australia.

The planned study would allow us to identify the window of opportunity for Australia has to take advantage of China's favorable demographic structure in the future decades by implementing strategically targeted policies of migration and the internationalization of education. In addition, it will identify the timeframe before which the window of opportunity of profiting from China's demographic dividend, especially the second one, will close. The window of opportunity will likely to close sometime in the next two decades as the Chinese population ages, surplus labor in China's labor market diminishes and the intergenerational wealth transfer will shift from the working population to the elderly population. This would have significant implications for migrant receiving countries such as Australia.

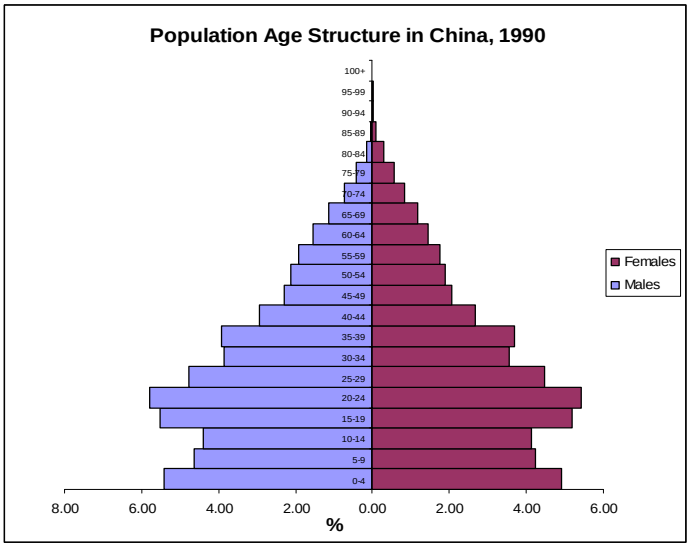
[3] Prior to 2005, the Australian Graduate Survey was known as the Graduate Destination Survey.

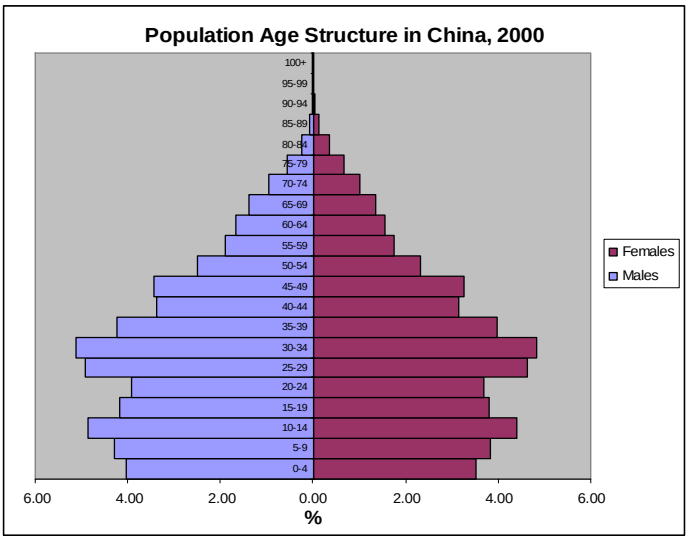
Table 1.

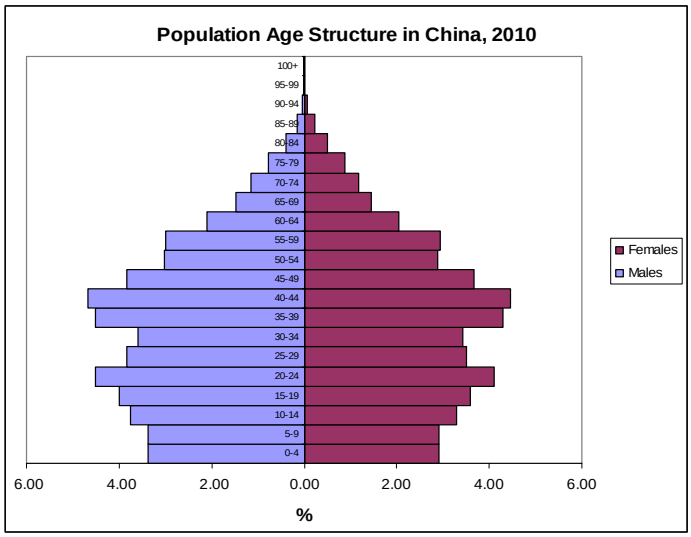
	Population aged 5-14		Population aged 15-24	
	Total Size (in thousand)	% of total population	Total Size (in thousand)	% of total population
1990	199712	17.4	251916	21.9
1995	219278	18.1	219707	18.1
2000	220700	17.4	197747	15.6
2005	198484	15.1	217383	16.6
2010	180085	13.3	218974	16.2
2015	169220	12.2	197027	14.2
2020	171813	12.1	178829	12.6
2025	174897	12.1	168129	11.6
2030	172487	11.8	170804	11.7

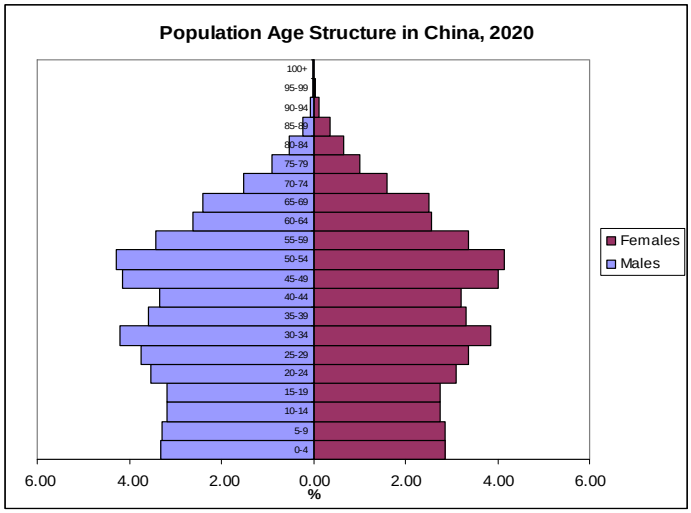
Source: United Nations (2007), World Population Prospects: the 2007 Revision.

Figure 1. Population age structure in China, 1990 to 2030
(source: UN, 2007)






Population Age Structure in China, 2010
100+
95-99
90-94
85-89
80-84
75-79
70-74
65-69
60-64
55-59
50-54
45-49
40-44
35-39
30-34
25-29
20-24
15-19
10-14
5-9
0-4
Females
Males
6.00
4.00
2.00
0.00
2.00
4.00
6.00
%


Population Age Structure in China, 2020
100+
95-99
90-94
85-89
80-84
75-79
70-74
65-69
60-64
55-59
50-54
45-49
40-44
35-39
30-34
25-29
20-24
15-19
10-14
5-9
0-4
Females
Males
6.00
4.00
2.00
0.00
2.00
4.00
6.00
%

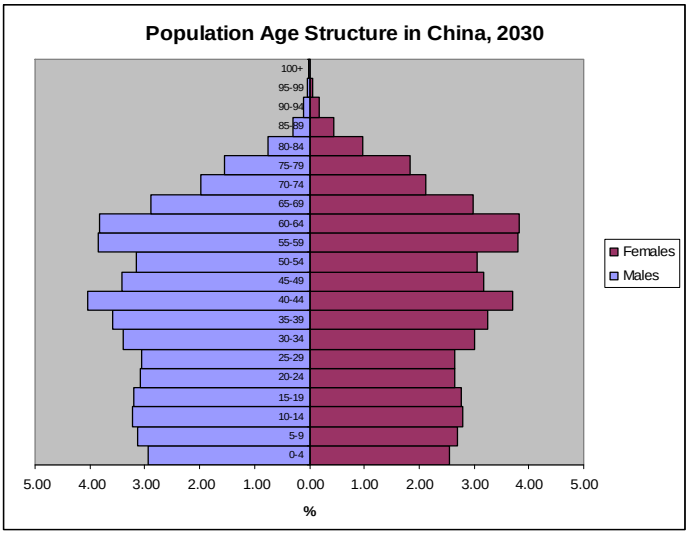

Population Age Structure in China, 2030
100+
95-99
90-94
85-89
80-84
75-79
70-74
65-69
60-64
55-59
50-54
45-49
40-44
35-39
30-34
25-29
20-24
15-19
10-14
5-9
0-4
Females
Males
5.00
4.00
3.00
2.00
1.00
0.00
1.00
2.00
3.00
4.00
5.00
%

Figure 2 [Source: ABS (2007), 2006 Census of Population and Housing]

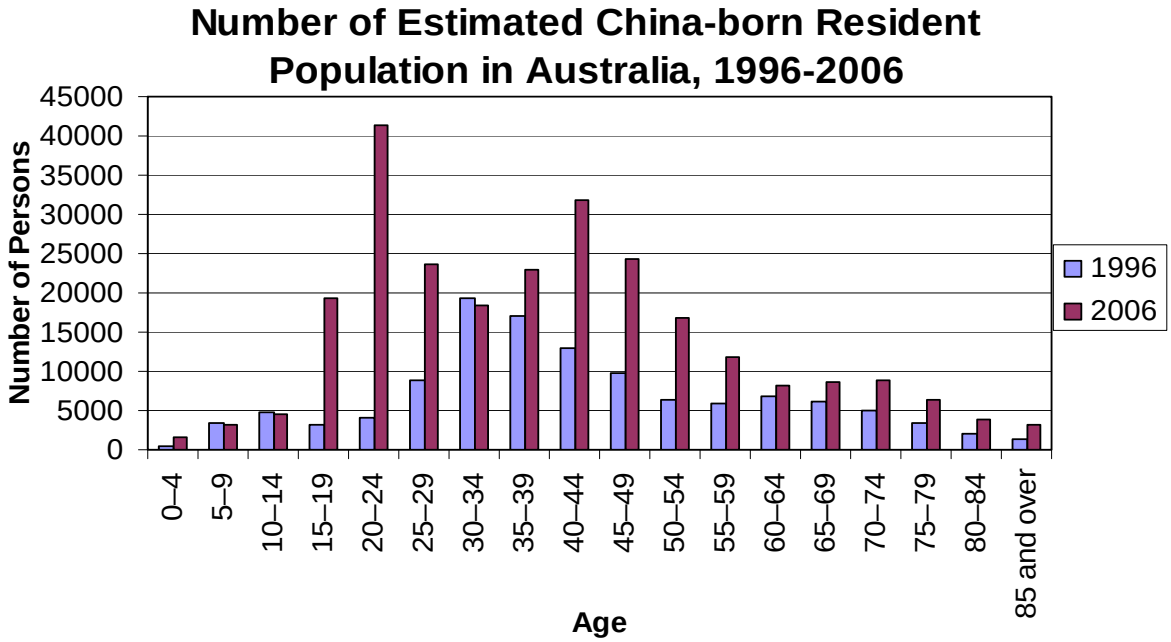


Figure 3 [Source: ABS (2007), 2006 Census of Population and Housing]

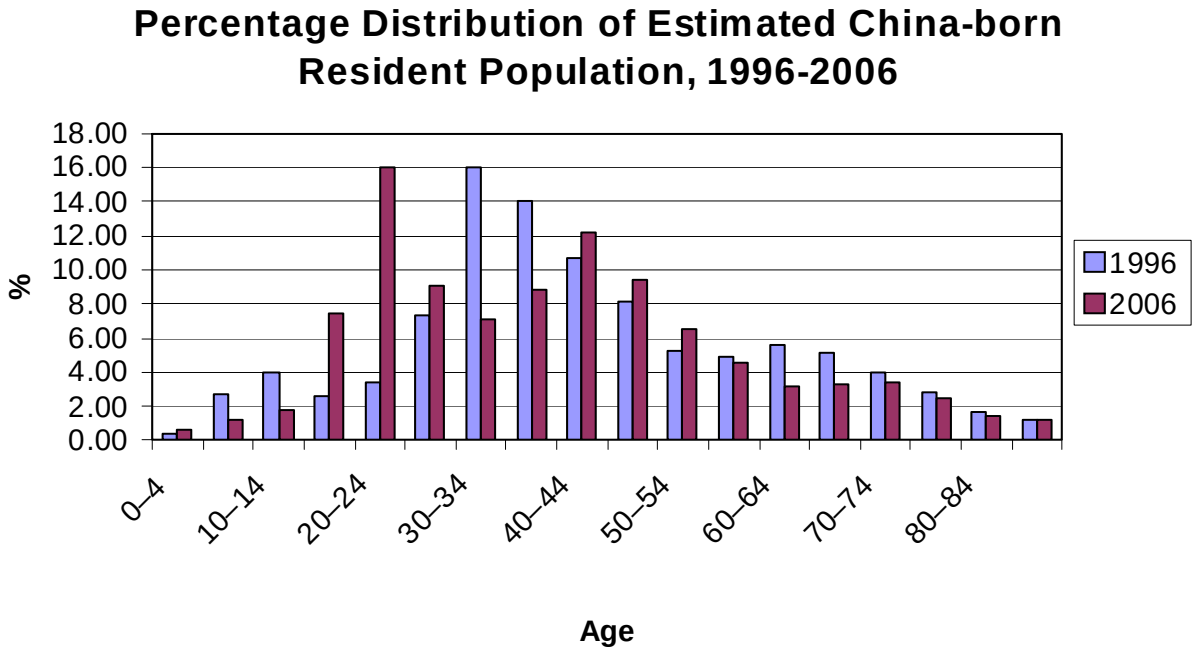
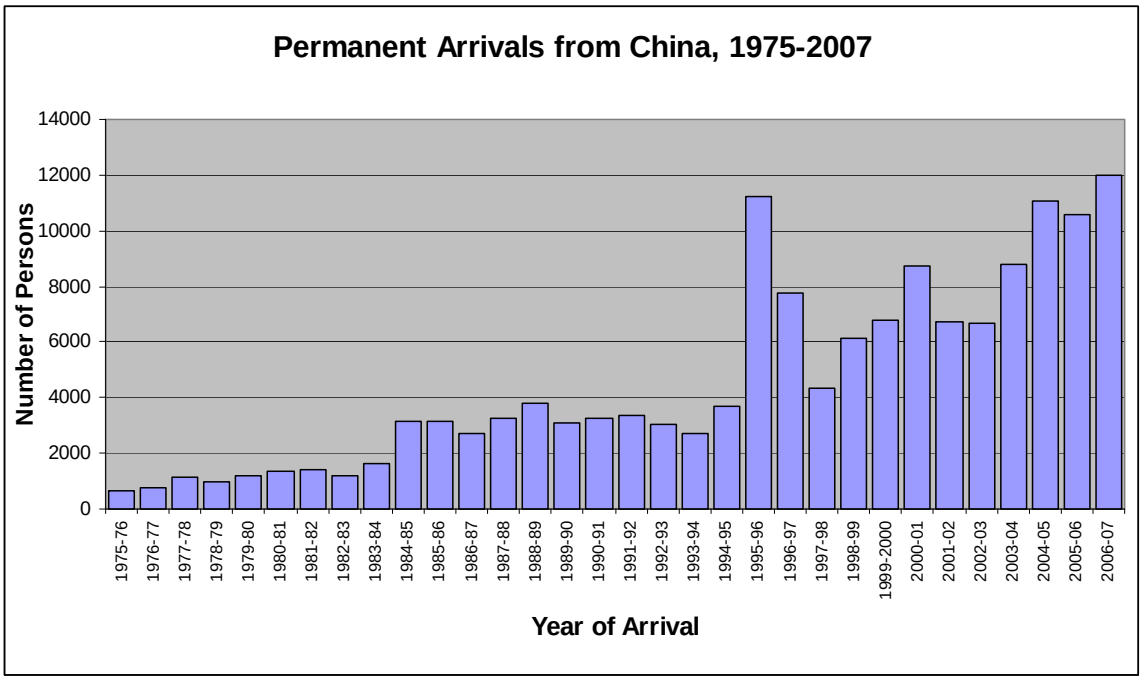


Figure 4 [Source: ABS (2008), Migration, Australia]



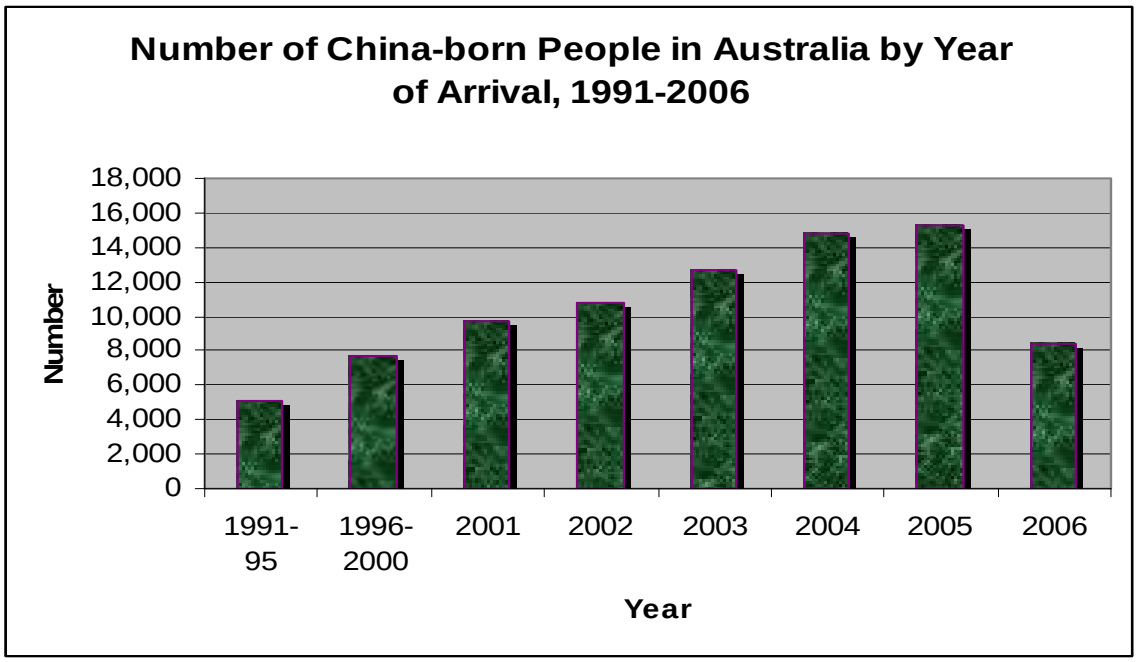
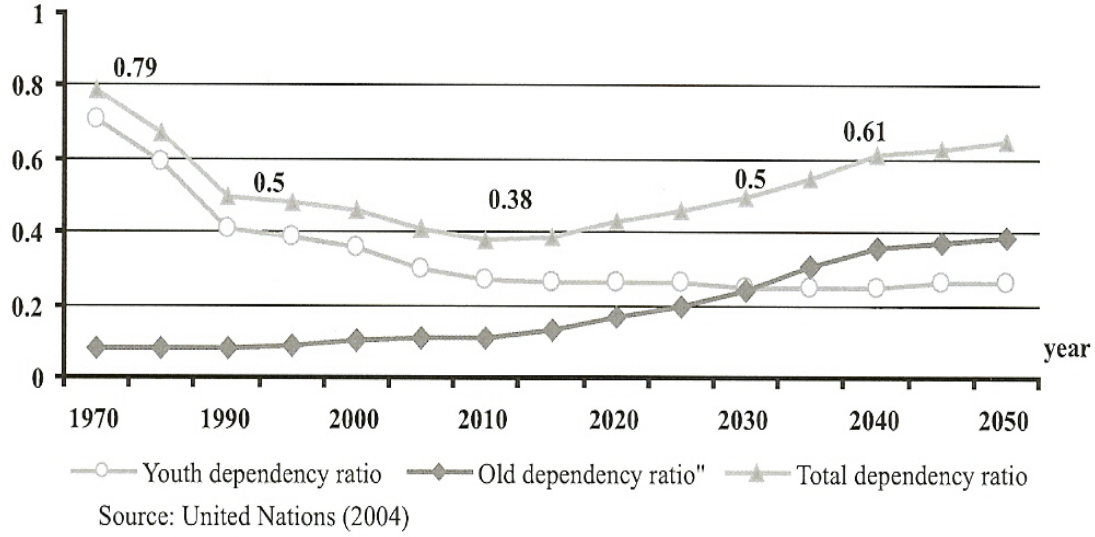


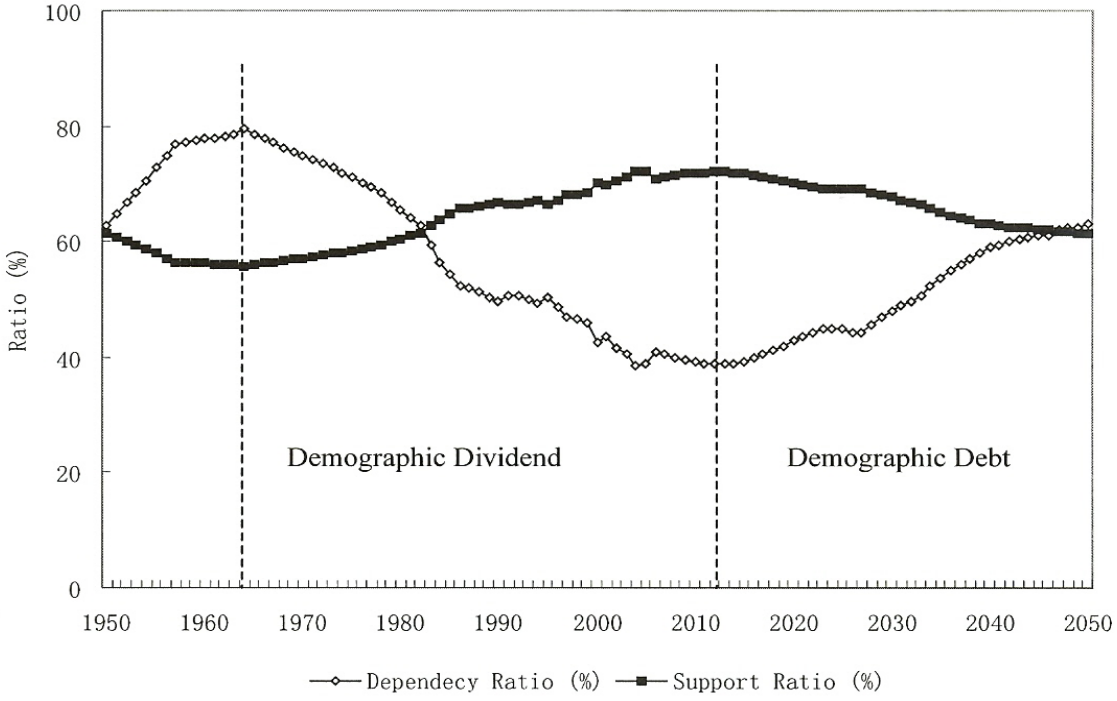
Figure 5 [Source: ABS (2008), Migration, Australia]

Figure 6. Trend of dependency ratios in China



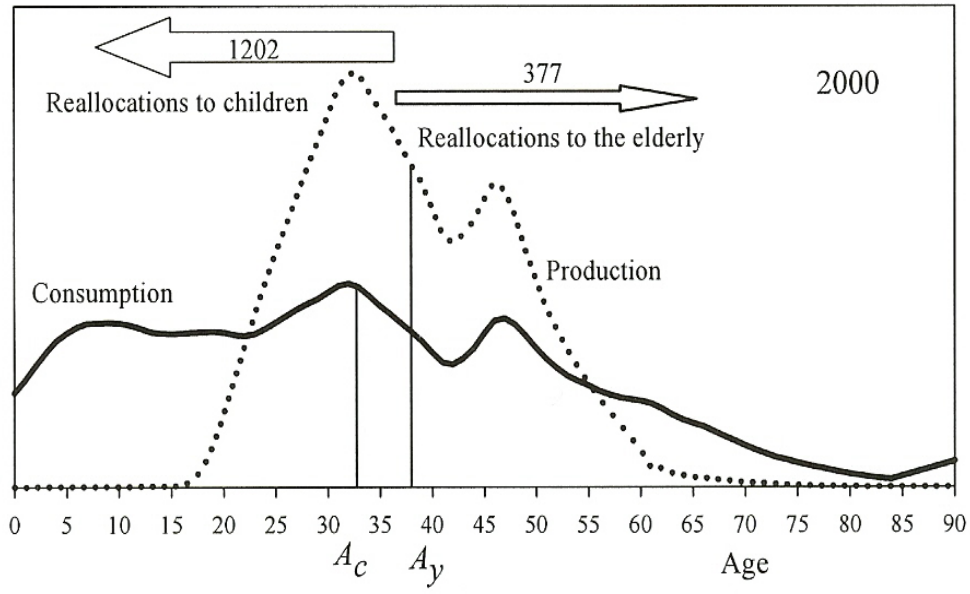
Source: Peng (2005)

Figure 7. The time period of the first demographic dividend in China



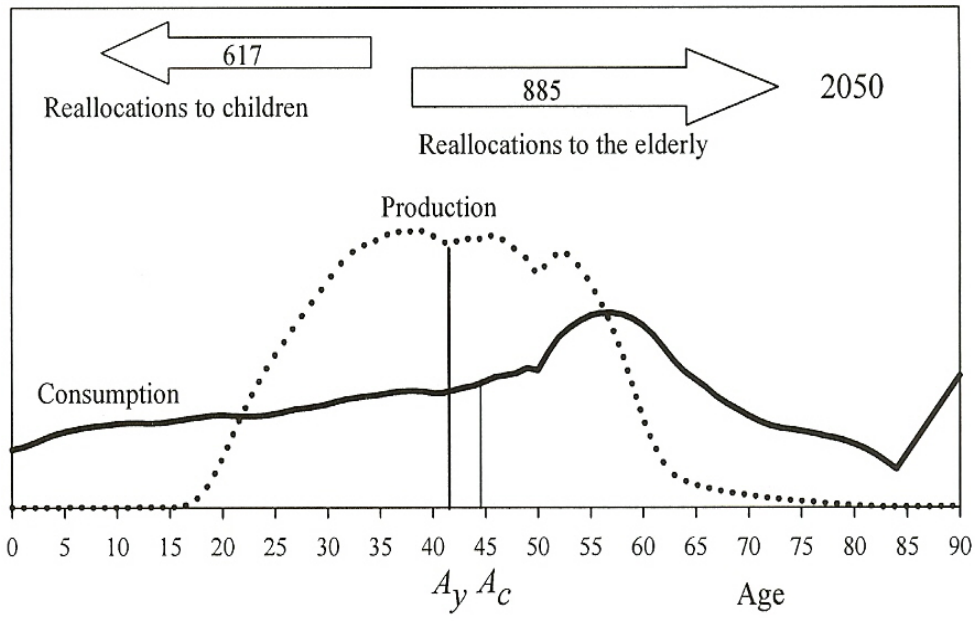
Source: Cai and Wang (2006)

Figure 8. Consumption and Production Profiles in China, 2000



Source: Wang and Mason (2005)

Figure 9. Consumption and Production Profiles in China, 2050



Source: Wang and Mason (2005)

References

Ananta, Aris, Evi Arifin and Bakhtiar (2005) "Ethnicity and Ageing in Indonesia, 2000-2050", *Asian Population Studies*, vol. 1, no. 2. pp227-243.

Birrell, Bob, Virginia Rapson and Fred Smith (2005) *Immigration in a Time of Domestic Skilled Shortages*, Centre for Population and Urban Research, Monash University.

Bloom, David, David Canning and Jaypee Sevilla (2002) *The Demographic Dividend: A New Perspective on the Economic Consequences of Population Change*, RAND, Santa Monica, CA.

Cai, Fang and Wang Dewen (2006) "Demographic Transition and Economic Growth in China", presented at the International Conference on the Dragon and the Elephant: China and India's Economic Reform, July 1st - 2nd, Shanghai, China.

Department of Immigration and Citizenship (2007) *Settler Arrivals 2006-2007*, Canberra.

Department of Immigration and Citizenship (2008) *Immigration Updates 2006-2007*, Canberra.

Dixon, Peter and Maureen Rimmer (1998) *Forecasting and Policy Analysis with a Dynamic CGE Model of Australia*. Centre of Policy Studies, Monash University, Preliminary Working Paper No. OP-90, June

Hugo, Graeme (2005) "A demographic view of changing youth in Asia, in Gale, F. and Fahey, S (ed.) *Youth in Transition: the Challenges of Generational Change in Asia*, AASSRC.

Hugo, Graeme (2006) *Recent development in Chinese migration to Australia with special references to academics,* presented at "People on the Move: Transnatinal Flows of Chinese Human Capital" Conference, Hong Kong University of Science and Technology.

Hugo, Graeme (2007) International Migration and Development in Asia, in *Proceedings of The 8th International Conference of Asia Pacific Migration research Network: Migration, Development and Poverty Reduction*, 26-29 May, Fuzhou, China.

Golley, Jane and Rod Tyers (2006) "China's Growth to 2030: Demographic Changes and Labour Supply Constraint", *The Australian National University Working Papers in Economics and Econometrics,* no. 467.

Guest, Ross and Ian McDonald (2002) *Prospective Demographic Change and Australia's Policy Agenda for the 21st Century*, presented at Toward Opportunity and Prosperity: the 2002 Melbourne Institute Economic and Social Outlook Conference, April, Melbourne.

Guo, Fei (2007) "The Impact of temporary migration on migrant communities", in Zhao, Z and F. Guo (ed.) *Transition and Challenge: China's Population at the Beginning of the 21st Century*, Oxford University Press.

Guo, Fei (2007) *From "Sea Turtle" to "Seaweed": Changing Images of Overseas Return Skilled Migrants to China*, presented at the Asia Pacific Skilled Migration to Australia Workshop, 19-20 April 2007, Sydney.

Jackson, Natalie and Bruce Felmingham (2003) "The Demographic Gift in Australia", *Economics Discussion Papers 2003-03, School of Economics, University of Tasmania,* http://www.utas.edu/economics.

Khoo, Siew-Ean, Carman Voigt-Graf, Peter McDonald and Graeme Hugo (2007) "Temporary Skilled Migration to Australia: Employers' Perspectives", *International Migration,* vol. 45, no. 4, pp176-200.

McDonald, Peter (2007) "Australian Demographic Prospects 2004-2050", in Phillips, R. (ed.) *Generational Change and Social Policy Challenges: Australia and South Korea*, Sydney University Press.

McDonald, Peter and Rebecca Kippen (2001) Labour Supply Prospects in 16 Developed Countries, 2000-2050, *Population and Development Review,* vol. 27, no. 1, pp1-32.

Mason, Andrew (2007) "Demographic Transition and Demographic Dividends in Developed and Developing Countries", *United Nations Expert Group Meeting on Social and Economic Implications of Changing Population Age Structures, Mexico City, 31 August – 2 September 2005*, New York.

Mason, Andrew and Ronald Lee (2004) *Reform and Support Systems for the Elderly in Developing Countries: Capturing the Second Demographic Dividend,* presented at the IUSSP/Asian Meta Centre "International Seminar on the Demographic Window and Health Ageing: Socioeconomic Challenges and Opportunities", Centre for Health Ageing and Family Studies and the China Centre for Economic Research, Peking university.

National Development and Reform Commission (NDRC) (2008) *Deepening institutional reform to promote integrated urban-rural economic and social development,* presented at the International Conference on Deepening Economic System Reform to Promote Balanced Urban-Rural Development, Beijing, 22-23 January.

Ogawa, Naohiro, Makoto Kondo and Rikiya Matsukura (2005) "Japan's Transition from the Demographic Bonus to the Demographic Onus", *Asian Population Studies*, vol. 1, no. 2. pp207-226.

Peng, Xiujian (2005) "Population Ageing, Human Capital Accumulation and Economic Growth in China", *Asian Population Studies,* vol. 1, no. 2. pp169-188.

Peng, Xizhe and Yuan Cheng (2005) "Harvesting the Demographic Bonus: the impacts of migration in Shanghai", *Asian Population Studies,* vol. 1, no. 2. pp189-205.

Phang, Hanam (2007) "Demographic Dividend and Labour Force Transformation in Asia: the Case of the Republic of Korea", *United Nations Expert Group Meeting on Social and Economic Implications of Changing Population Age Structures, Mexico City, 31 August – 2 September 2005*, New York.

Pool, Ian (2004) *"Demographic dividends", "windows of opportunity" and development: age-structure, population waves and cohort flows,* presented at CICRED Seminar on "Age-structural Transitions: Population Waves, Disordered Cohort Flows and the Demographic Bonus, Paris, 23-26 February.

Population Reference Bureau (2007) 2007 World Population Data Sheet, Washington, DC. (www.prb.org)

Roberts, Kenneth (2007) "The changing profile of labour migration" in in Zhao, Z and F. Guo (ed.) *Transition and Challenge: China's Population at the Beginning of the 21st Century*, Oxford University Press.

Tani, Massimiliano (2006a) "International Business Visits", *Agenda*, vol. 13, no. 4 pp323-337.

Tani, Massimiliano (2006b) *Head-content or Headcount? Short-term Skilled Labour Movements as a Source of Growth*, Institute for the Study of Labor Discussion Paper Series, No. 1934, IZA, Bonn, Germany.

Tyers, Rod and Qun Shi (2006) *"Global Demographic Change, Labour Force Grwoth and Economic Performance"*, Working Paper of College of Business and Economics, Australian National University.

Turra, Cassio and Bernardo Queiroz (2007) "Before it's too Late Demographic transition, Labour Supply, and Social Security Problems in Brazil", *United Nations Expert Group Meeting on Social and Economic Implications of Changing Population Age Structures, Mexico City, 31 August – 2 September 2005*, New York.

United Nations (2007), World Population Prospects: the 2007 Revision.

Vallin, Jacques (2005) "The Demographic Window: An Opportunity to be Seized", *Asian Population Studies*, vol. 1, no. 2. pp149-167.

Wang, Feng and Andrew Mason. (2007) "Demographic Dividend and Prospects for Economic Development in China", *United Nations Expert Group Meeting on Social and Economic Implications of Changing Population Age Structures, Mexico City, 31 August – 2 September 2005*, New York.

Wang, Yan and Yudong Yao (2003) "Source of China's economic growth 1952-1999: incorporating human capital accumulation", *China Economic Review*, no.14, pp32-52.

Wongboonsin, Kua, Phillip Huest and Vipan Prachuabmoh (2005) "Demographic Change and the Demographic Dividend in Thailand", *Asian Population Studies*, vol. 1, no. 2. pp 245-256.

Yao, L. (2004) *The Chinese Overseas Students: An Overview of the Flows Change*, presented at the 12th Biennial Conference of the Australian Population Association, Canberra, 15-17 September.