

## **Cohort Trajectories In Hong Kong's Housing System: 1981-2001**

Ngai Ming Yip, City University of Hong Kong, HKSAR, China

Ray Forrest, Bristol University, UK

Adrienne La Grange, City University of Hong Kong, HKSAR, China

### **Introduction**

Changes in the nature and availability of employment, demographic structures and behaviour, income distributions and policy regimes all combine to affect peoples` life chances. In any society different cohorts enter the housing and labour markets under highly varied circumstances. Their progression over the life course is shaped by the particular set of conditions they encounter at that point of entry and by the subsequent economic, social and policy environment. This is not to suggest a uniformity of experience among different groups over time but a distinctiveness of experience producing notable contrasts between cohorts and specific intra cohorts variations. In relation to policy, major changes in, for example, health, educational and housing provision can have significant distributional impacts. And housing can be a particularly critical element given the influence of well located, good quality accommodation on health outcomes, educational and employment opportunities and public service provision generally. Moreover, housing represent the major cost in most household budgets and for most owners it is likely to be their main asset.

Across a wide range of industrialised societies the last half century or so saw enormous transformations in housing systems. A significant feature was the development of social housing in various forms. For many households the availability of low cost housing of reasonable quality had a major impact on their quality of life and on their subsequent route through the housing market. Hong Kong was no exception and was notable for the high proportion of its population in the public housing sector-a sector which continued to grow until the early 1990s. It is with particular reference to the growing role of public housing in Hong Kong that this paper examines the housing experiences of different age cohorts over the last two decades. The analysis draws on five census waves and disaggregates the population into thirteen five year age cohorts. The paper explores *inter alia* patterns of home ownership attainment among different groups, the housing positions of different income groups within each cohort and the changing tenurial distribution.

### **International Experience**

Generalisations about shifts in the structure and shape of housing systems at an international level are fraught with difficulties. Moreover, even apparently similar developments in relation to housing provision can produce highly varied consequences with differences in economic cycles, demographics, labour markets and income levels. Nevertheless, there has been a degree of commonality in the direction of change and in the changing portfolios of housing opportunities which have confronted different cohorts in the population at different times. Harloe (1995), for example, has provided the most comprehensive and detailed account of the shifting fortunes and roles of public housing in Europe and North America. While he points to important differences in national patterns and experiences he refers to a 'golden age' of direct provision

spanning the period 1945 to 1970. After this the role of public housing declines to a more residual role with a renewed market orientation in provision. One interpretation of these developments is of public or social housing in its varied forms performing a kind of holding operation between a declining private rental sector and an ascendent mortgage based individual home ownership. Against this backcloth certain privileged cohorts have gained particular benefits from direct state provision and have typically been the same groups who have received a further boost in their housing trajectories via policy shifts to privatisation and marketisation.

Conversely, the cohorts which have followed have often faced fewer and lower quality housing opportunities. . The rise and fall of direct public housing provision has been closely paralleled, and intimately connected with, the growth of individual home ownership. Here again the benefits and opportunities on offer have varied significantly over space and time. Again there are references to a 'golden age' in the literature (eg. Dymski and Isenberg, 1998) characterised by rising real house prices, growing job security, expanding state sectors and subsidies, high general inflation and relatively affluent purchasers. The new age has features such as low inflation, falling or stable house prices, falling nominal house prices, weakened social protection, reduced state subsidies for home owners and a greater mix of households or dwellings. The way in which these and other factors have combined to influence housing pathways requires detailed examination in different national contexts. The simple point is that some cohorts have been considerably more fortunate than others. And this has perhaps been particularly true in societies in which economic growth and social change has been rapid and compressed into a relatively short period as in many parts of East Asia.

### **Economic Change and Housing Policy Development in Hong Kong**

Hong Kong has achieved impressive economic and social development over the last fifty years, from a poor community of refugees from Mainland China working in sweatshops and informal trades to a wealthy society. Real per capita income increased more than five times from 1966 (HK\$12,030) to 2000 (HK\$61, both at constant 1980 prices). Hong Kong has shown a talent for reinventing itself, from entrepot to manufacturing to higher order services economy; and these economic transformations have created new employment patterns and opportunities. Employment in manufacturing declined from 80 per cent of employment in 1970 to about 11 per cent in 2000, while employment in services increased from 13 per cent nearly 90 per cent over the same period. Yet Hong Kong has, until recently, had low unemployment, and indeed at times suffered from a labour shortage. However this trajectory masks periods of significant economic and social turmoil. The most recent and probably the most severe has been the Asian Financial Crisis of 1997 and its aftermath. House price in late 2003 has fallen by over sixty percent since its peak in mid 1997. These undulated fortunes have shaped the city's economic and social landscape.

Overall, there has been substantial economic growth and wealth and opportunity have trickled down. Benefits, however, have not been distributed evenly. Older workers shed by the manufacturing sector experienced a decline in their collective fortunes. Younger workers, taking advantage of expanding educational opportunities have been well served in the services economy and have benefited from increased room at the top and remarkably wide recruitment into middle

class positions (Lui, 1997, Tsang, 1994, Wong and Lui, 1992, Lui and Wong, 1994). While wealth undoubtedly trickled down during the decades of rapid economic growth, levels of inequality were high. Between 1976 and 1991 the official Gini coefficient of household income distribution rose from 0.430 to 0.518 and Hong Kong has one of the highest rates on income inequality among high income economies (Lui, 1997).

Economic opportunities were complemented by the large scale provision of social services, including housing, public health and education, that allowed low incomes to go further and moderated the worst effects of large income inequalities. Since the mid-1950s the government has been committed to the large scale provision of public rental housing. In 1976 the Housing Authority introduced a relatively small scale build-for-sale scheme, the Home Ownership Scheme (HOS). The HOS scheme has since then swiftly expanded to become a significant component of publicly developed housing, both in terms of its contribution to the overall housing stock as well as to the finance of the Housing Authority (the Housing Authority in the mid 1990s generated a surplus of over US\$2.5b a year from the sale of HOS). As at January 2002 the Housing Authority had provided some 1,037,000 public flats or nearly half of total housing stock in Hong Kong (652,000 public rental flats and 385,000 subsidized home ownership flats) and over 49,000 housing loans or mortgage subsidies for home purchase.

Yet Hong Kong Government has been ambivalent over the role of public housing in the last decade. Despite the endorsement of a private sector leader strategy in the Long Term Housing Strategy in 1987, public sector housing continued to expand. The first HKSAR Administration even embraced public housing as an instrument in the reinventing of housing policy when an annual housing supply target of 85,000 units was proclaimed 1997 in which 50,000 units a year will be developed by the Housing Authority (half of that would be HOS). The Housing Authority also revitalised the aborted plan of sale of public housing to sitting tenants (the Tenant Purchase Scheme TPS) in 1998 and since then about 75,000 TPS flat were sold (HKHA, 2002).

Paradoxically, favorable climate for public housing in the late 1990s was short-listed and the tide soon turned against public housing in the last few years. First, under pressure from the real estate industry to curb housing supply amidst the market slump in the aftermath of the Asian Financial Crisis, HKHA was forced to permanently scrapped HOS in 2002. Second, the Review of the Institutional Framework for Public Housing in Hong Kong (RIF Report) proposes a more flexible mixed mode of public rental housing in which in kind provision may have to give way to in cash provision (HKSAR, 2002:26). Third, a divestment strategy is adopted in which the commercial assets of HKHA will be sold off to generate development capital which is stripped off by the stoppage of HOS (HKHA, 2003)

## **Methodology**

Cohort analysis is employed for the empirical investigation in this paper. Cohort analysis often refers to as “a comparison of the characteristics of one cohort at two given points of time” (Glenn, 1977: 8). In this paper, birth cohorts are used which comprise people who were born in a particular year (or period). The validity of cohort analysis hinges on the assumption that

“particular periods in history have distinct effects on members of cohorts undergoing formative experiences that will shape them for life”(Alwin, 1997: 166). Thus social change can be observed by tracing the development of successive cohorts over a period of time.

In this paper pseudo longitudinal data are created by five waves of the Hong Kong Population Census and By-census conducted in 1981, 1986, 1991, 1996 and 2001. These are the only five waves of census data which are available in electronic format. Analysis of the micro data was conducted via the Self-help tabulation service offered by the Census and Statistics Department. Age cohorts were formed by grouping the heads of household who were born within a five year period. Essentially we start with cohorts who were born in 1961 to 1966 (who were aged 35 to 39 in 2001).

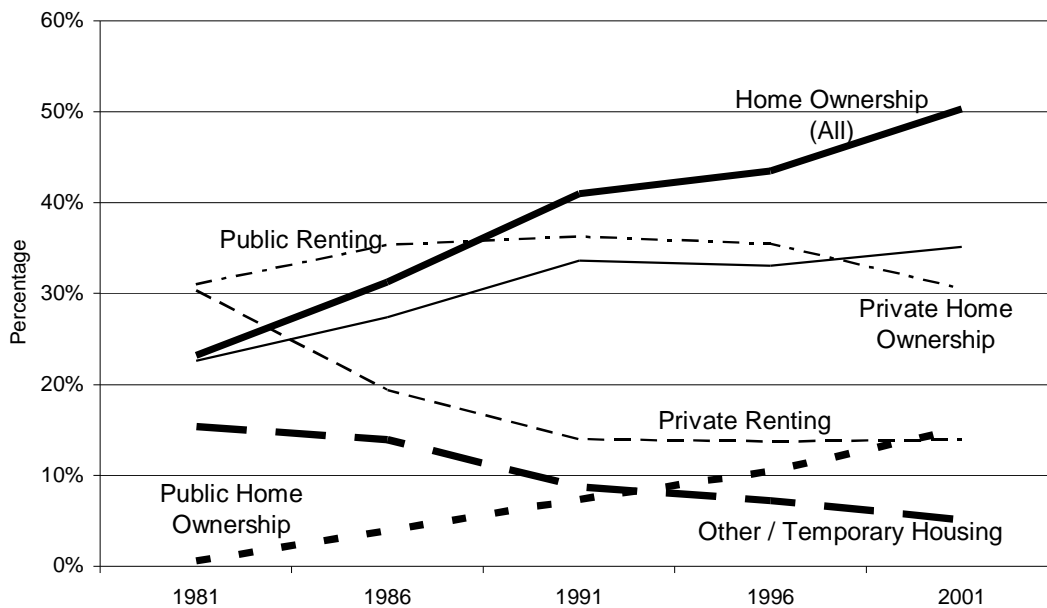
However, findings from cohort analysis has to be interpreted with caution. First, cohort analysis only measures the net difference of attributes within a cohort between two periods of time but the actual change within the cohort cannot be detected (for instance a no change scenario may be the result of equal change in both direction). Second, the grouping and the boundary of a cohort is often arbitrary and thus creates the problem of identification. Third, cohort effect may only be an exhibition of period effect or individual difference. Further analysis has to be done to differentiate such effects (see Farebaugh (1989) for more detailed discussion of the shortcoming of cohort analysis).

### **Cohort trajectories**

Hong Kong witnessed a phenomenal surge of home ownership in the last two decades. In 1981 less than a quarter (23%) of households were home owners but by 2001 this figure had more than doubled to 50% (figure 1). Although the pace of increase appears fairly steady throughout the two decades, the momentum was fuelled significantly by the mass construction of public ownership flats, especially in the 1990s. The private home ownership rate almost halted in the early 1990s. It dropped half of a percent point from 1991 to 1996 (the time when house price in Hong Kong were out of control) and only increased by two percentage points from 1996 to 2001. On the other hand, HOS flats were developed at an average annual rate of over 12,500 units over the 25 years history of HOS and in the 1990s alone accounted for 55% of the units constructed. The sale of over 75,000 units under TPS after 1988 further boosted the growth of home ownership.

The rental sectors inevitably lost out to the expansion of home ownership. Whilst in the 1980s, the share of the public rental sector still increased from 31% to 36%, it was the private rental sector (and to lesser extent temporary housing) which declined sharply. The proportion of private tenants halved from 30% to 19 % between 1981 and 1991. After that the private rental sector stabilized and from the early 1990s it was the public rental sector which contracted. The decline was particularly marked towards the latter part of the 1990s following the introduction of the Tenant Purchase Scheme (TPS) in 1998. The share of public tenants decreased from 36% in 1996 to 31% in 2001 (figure 1).

Figure 1 Tenure Distribution 1981 – 2001

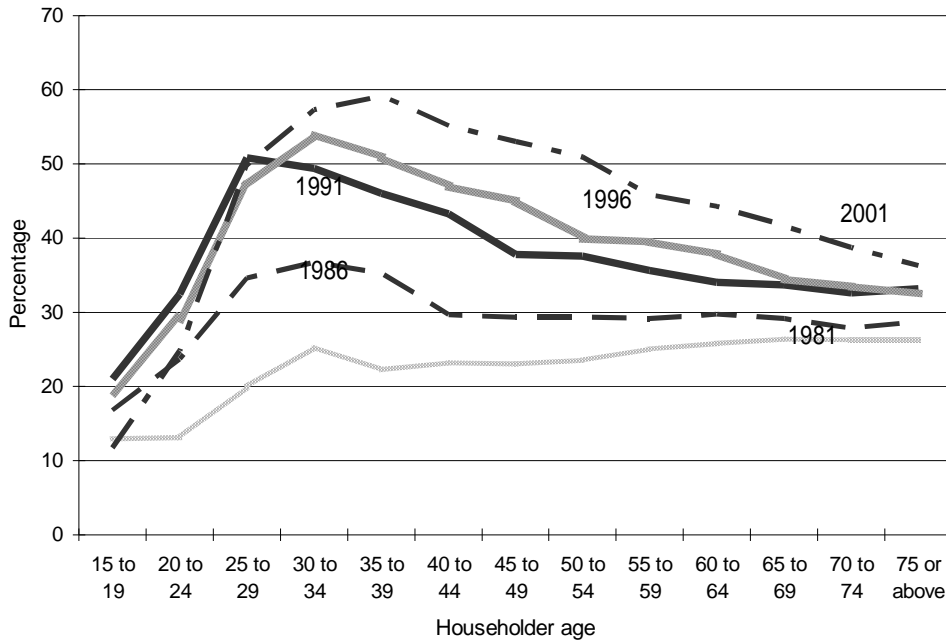


Source: Authors' re-analysis of census 1981, 1986, 1991, 1996, 2001

As can be seen, different age cohorts have experienced rather different tenure trajectories. The longitudinal data created by combining the 5 waves of Census clearly indicate that home ownership in 1981 generally increased with age (figure 2). The need for home owners to save for a long time prior to home buying explains such a pattern. However, from the early 1980s to mid 1990s, householders in their late twenties and early thirties exhibited a growing propensity to buy. The home ownership rate among such age groups grew substantially. This is in sharp contrast with some other mature economies in which home ownership reaches a peak and tends to stabilize towards retirement age and gradually declines when the householders enter into old age. For instance, Clark and Dieleman (1996) found that the home ownership rate peaked in the US between 1980 to 1990 for fifty something house-holders then declined when they passed the retirement age. However, there are also indications that in recent years the expansion of home ownership among younger cohort has been dampened. This is indicated by the trough of age distribution of home owners in figure 2 which has shifted to the right during the latter part of the 1990s.

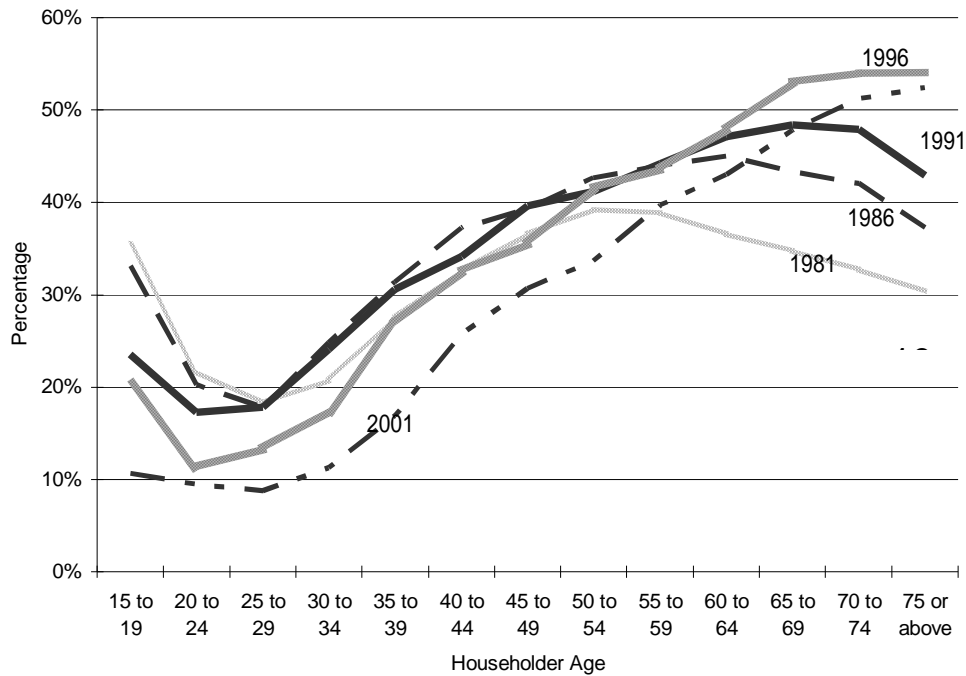
It is thus not surprising to find that because the younger cohorts have increasingly opted for home ownership over the last two decades, their presence in the public rental sector has been greatly reduced. Figure 3 shows the age distribution of public tenants over this period. There is a clear indication that along the cut-off age of 55 to 59, the proportion of younger tenants has gradually decreased while that of the older tenants increased. It is also evident that the younger the tenants, the bigger the scope of reduction with the converse being the case for older households. The period 1996 to 2001 saw a general reduction in the share of public renting affecting all age groups nearly equally with the exception of the very old.

Figure 2 Home Quantity Rate (Public and private) by Age 1981-2001



Source: Authors' re-analysis of census 1981, 1986, 1991, 1996, 2001

Figure 3 Public Rental Housing by Age 1981-2001



Source: Authors' re-analysis of census 1981, 1986, 1991, 1996, 2001

If we trace the progression of different age cohorts over the last twenty years it is clear (figure 4) that all age cohorts experienced a surge in home ownership but the rise among the youngest cohorts was particularly steep. The increase is most marked in the age group 35 to 39 - 59% were home owners by 2001. However, steep increases in home ownership levels area also evident in the 34-39 and 44-49 cohorts. The 34-39 group shows a particularly strong surge in the home ownership rate (by over 10%) during the period 1996 to 2001 when they were in their late twenties and early thirties. This matches the time when people in that period would be forming independent households and when housing had become more affordable after the substantial price depreciation occasioned by the Asian Financial Crisis.

Figure 4 Cohort Trajectories of Private Housing Ownership 1981- 2001



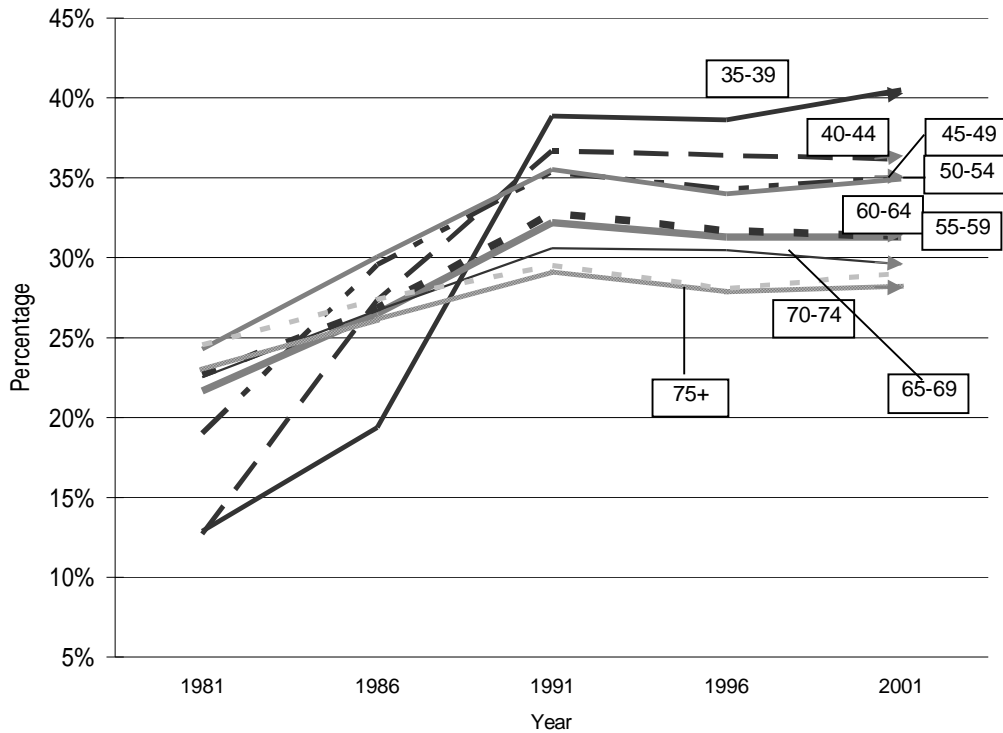
Source: Authors' re-analysis of census 1981, 1986, 1991, 1996, 2001

Note: Figures in the boxes indicate the age of the age cohort in 2001

An interesting pattern emerges when the cohort effect in home ownership is broken down between private and public ownership. Among private home owners, three age cohorts stand out (figure 5). The first group are those who were under the age of 55 in 2001. Such cohorts in general experienced a steep increase in home ownership in the 1980s but the increase basically halted in the 1990s. Obvious exceptions are the age cohorts in their late twenties and early thirties in 2001. These two groups show a spectacular increase in private home buying in the late 1990s. The second group are those between the age of 50 to 70 in 2001. These groups show only a modest increase in home ownership during the 1980s and decreased levels of home ownership in the 1990s. The third group are the oldest cohort (above 70) in 2001. The private home ownership rate among such cohorts fluctuated in the 1980s and early 1990s but increased among

all groups in the late 1990s. The explanation for this increase needs further investigation but could involve purchasing properties for children or family joint ventures of various kinds.

Figure 5 Cohort Trajectories of Home Ownership (Public and Private) 1981 - 2001



Source: Authors' re-analysis of census 1981, 1986, 1991, 1996, 2001

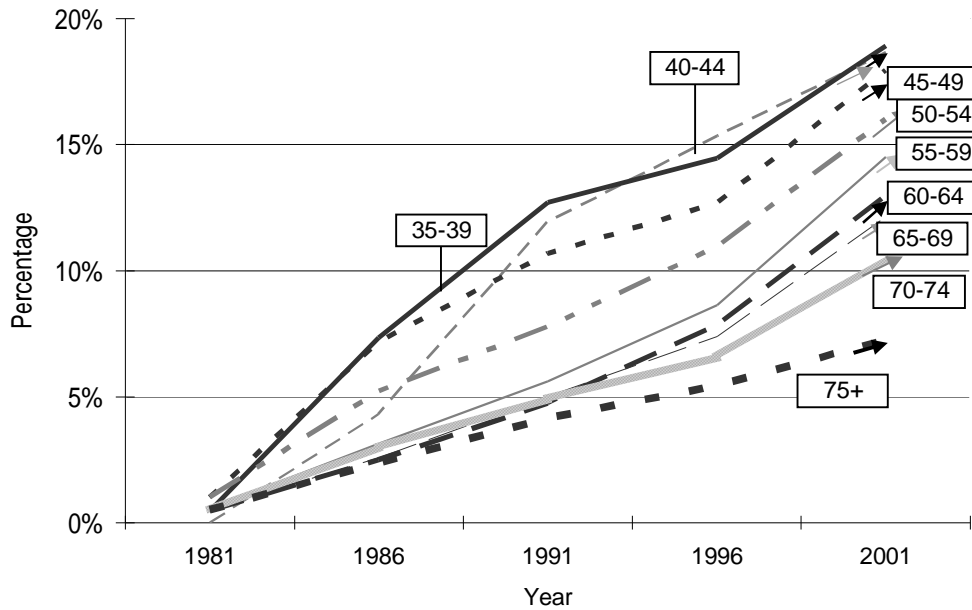
Note: Figures in the boxes indicate the age of the age cohort in 2001

Amongst public home owners, the pattern is less complicated. All age cohorts show an upward surge in public ownership over the last two decades, particularly during the period 1996 to 2001 (figure 6 when the housing market had collapsed). It is also notable that age cohorts in their twenties and sixties in 2001 had a much higher relative increase in public home ownership rate during the period 1996 to 2001. In the former group the public home ownership rate increased by 65% and in the latter by 40%. The increase among the former group can be attributable in great part to the HOS sale and among the latter by TPS.

In relation to the public rental housing sector, three patterns can be observed. First, a declining number of households in the younger cohort entered the public rental sector. Second, most of the new tenants over the last twenty years were in middle and old age and low mobility out of the public sector has gradually shifted the age profile of public tenants upward. Third, the decrease in the rate of public renting in the late 1990s has had a nearly equal impact amongst all age cohorts. (figure 7).



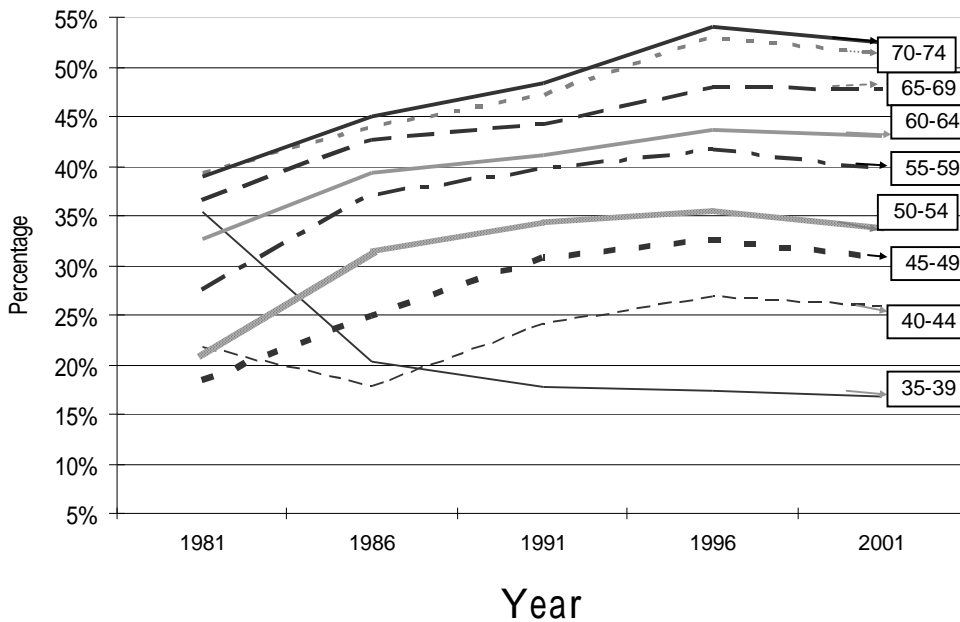
Figure 6 Cohort Trajectories of Public Home Ownership 1981-2001



Source: Authors' re-analysis of census 1981, 1986, 1991, 1996, 2001

Note: Figures in the boxes indicate the age of the age cohort in 2001

Figure 7 Cohort Trajectories of Public Renting 1981 - 2001



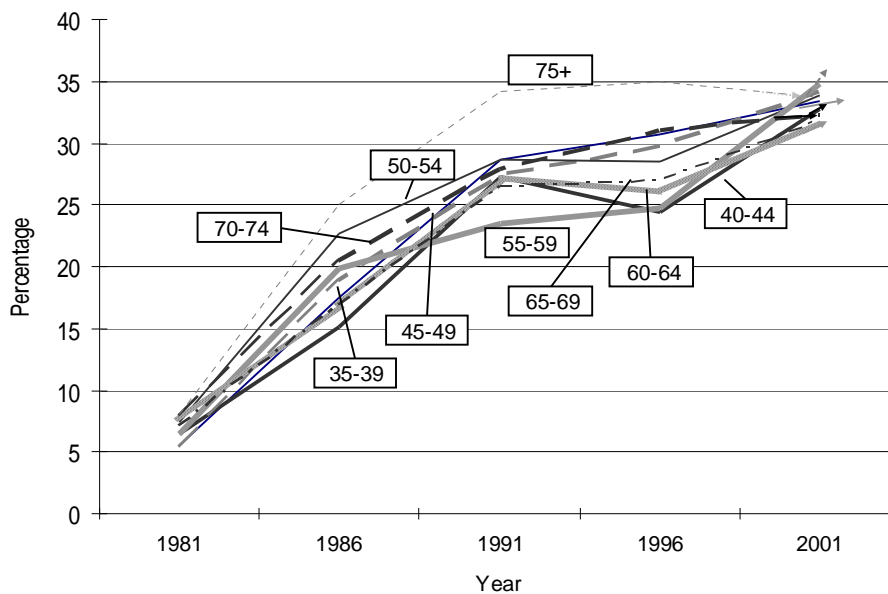
Source: Authors' re-analysis of census 1981, 1986, 1991, 1996, 2001

Note: Figures in the boxes indicate the age of the age cohort in 2001

To what extent can differences be observed in tenure cohort trajectories among different income groups? Unfortunately, substantial changes in the income distribution among different age cohorts occur over time and it is thus difficult to differentiate the independent effect of tenure and income change within a particular age cohort. However, the relative proportions of the poorest households among most age cohorts are reasonably stable over the last twenty years (except for households with retired householder, see appendix 1). At the same time, changes in tenure among the poorest sections vis-à-vis the general population also links to debates about an emergent socio-tenurial polarization in Hong Kong.

Figures 8 and 9 shows respectively the proportion of private and public home owners amongst the age cohorts who belonged to the poorest ten percent of the population (at the time when the Census was conducted). This distribution suggests that both the path of progression over the last twenty years and the level of home ownership among the poorest sections of the population were very similar to that found in the general population (figures 5 and 6). One notable observation is that whilst most of the age cohorts in the general population halted (or just increased marginally) their progression into private home ownership, the increase among the corresponding age cohort of the poorest ten percent households was rather substantial. At the same, the progression to private home ownership is also fairly uniform among the different age cohorts. This is in sharp contrast with the pattern in the general population where the younger cohorts exhibit a much more marked shift into home ownership than their older counterparts. The less apparent cohort effect in relation to moves into private ownership may indicate that among the poorest households, when it is affordable, there is a greater element of compulsion because of the long waiting times for entry into public renting, particularly for new immigrants.

Figure 8 Cohort Trajectories – Private Ownership in Lowest Income Decile Group 1981-2001



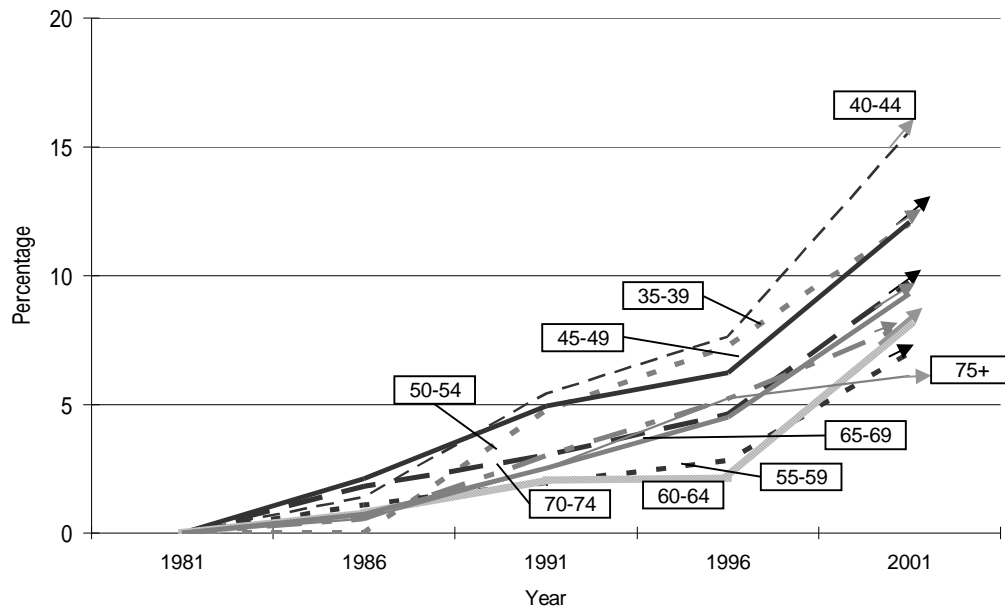
Source: Authors' re-analysis of census 1981, 1986, 1991, 1996, 2001

Note: Figures in the boxes indicate the age of the age cohort in 2001

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Figure 9 Cohort Trajectories – Public Ownership in Lowest Income Decile Group 1981-2001



Source: Authors' re-analysis of census 1981, 1986, 1991, 1996, 2001

Note: Figures in the boxes indicate the age of the age cohort in 2001

### Concluding Comments

From this preliminary analysis of the cohort data a number of patterns emerge. Over the two decades the growth of home ownership has been uneven with different factors fuelling recruitment of different cohorts at different times. The general pattern is what would be expected. It is the new and expanding middle class which has shown the highest propensity to move into the private home ownership market. They are also the group which has probably derived the greatest material benefits in terms of asset accumulation-given their pattern of recruitment during periods of price inflation. However, the development of public home ownership appears to have provided relatively uniform assistance across the other age cohorts and has been of significant strategic importance in 'democratising' access to the tenure. HOS was also evidently a key factor in maintaining the further growth of home ownership following the market slump occasioned by the Asian Financial Crisis. There is also evidence that the recruitment of poorer households into home ownership has remained relatively robust during this period. The other strong pattern to emerge from this analysis is the aging of the public rental sector over last twenty years with the diminishing recruitment of younger cohorts. Demographic aging accelerated sharply even during the period when the public rental sector was still marginally expanding. This is a pattern which is consistent with trends in other countries. The impact of the Tenant Purchase Scheme also begins to take effect after the Asian Financial Crisis indicated by declining levels of public renting across all age cohorts.

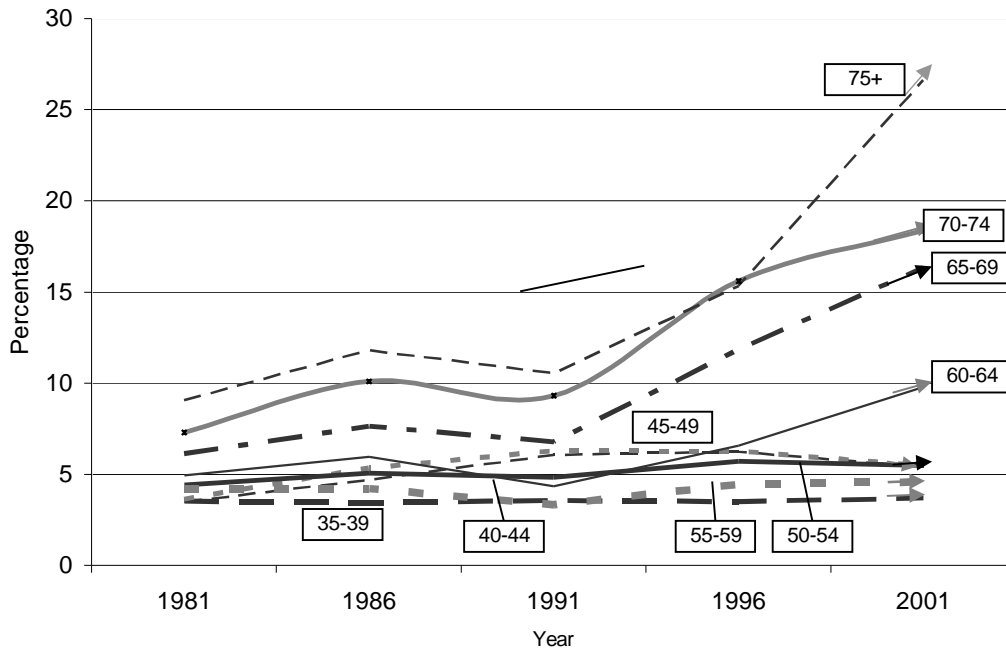
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Appendix Bottom Income Decile Group by Age Cohorts 1981-2001



Source: Authors' re-analysis of census 1981, 1986, 1991, 1996, 2001

Note: Figures in the boxes indicate the age of the age cohort in 2001