NIHR | Policy Research Unit Adult social care

Recent Trends in Disability, Marital Status, Household Composition, Homeownership, and Education among Older People

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Abstract

The Care Policy and Evaluation Centre has for many years produced projections of future demand for long-term care for older people in England and associated expenditure. These projections inform government spending reviews and policy on the financing of long-term care including charging for adult social care.

To produce robust projections, it is important to understand what factors drive demand for long-term care and what are likely to be the future trends in those factors. While past trends in these drivers are not necessarily the best guide to future trends, it is valuable to understand them and to consider whether they provide an indication of likely future trends.

This paper presents and discusses trends in disability, marital status, household composition, homeownership, and education among older people. It focuses on trends reported in national surveys of the household population of England from 2004 to 2019 for homeownership and education and from 2011 to 2019 for household composition and disability.

Disability in terms of whether people can conduct domestic and personal care tasks is clearly a crucial driver of need for long-term care. Marital status and household composition affect whether a person is likely to receive unpaid care from family members or require formal care services. Homeownership and education are indicators of financial resources, which can influence a person's preferences for care and ability to purchase care privately. Moreover, since publicly funded adult social care is subject to a means under which the value of the person's home is generally taken into account for residential care, housing tenure directly affects the receipt of publicly funded care. These variables are therefore highly relevant to projections of future demand for long-term care for older people.

Introduction

For many years, the Care Policy and Evaluation Centre (CPEC) at the London School of Economics and Political Science have produced projections of the numbers of older people receiving formal social care services together with the associated private and public expenditure. The projections are based on two linked simulation models. An aggregate (cell-based) model of demand for social care services and a microsimulation model of care charging. The aggregate projections models were originally developed by the Personal Social Services Research Unit (PSSRU at the University of Kent and LSE) and the CARESIM microsimulation model was developed by Ruth Hancock while at the University of East Anglia and previous Universities. The results of the model have been used widely to inform government Spending Reviews, reviews of charging policy, to understand the drivers of future social care spending on older people and the sensitivity of the models' results to various assumptions.

The models make projections on the basis of specific assumptions, rather than forecasts. Typically, projections involve a base case in which economic assumptions align closely with official forecasts made by the Office for Budget Responsibility and charging policy is unchanged. Other assumptions about future trends in exogenous factors are arrived at on the basis of the latest data and expert opinion. Past trends are not necessarily a good guide to future trends and expert opinion may not yield a consensus. The approach is therefore to choose base case assumptions which may be regarded as 'neutral'. Among the most important of such assumptions are those which relate to future patterns of marital status, household composition, homeownership, education level and disability amongst the older population. All of these have been found in statistical analysis to be associated with receipt of formal care – residential and/or domiciliary care. Homeownership is also very important for residential care charging as it is usually taken into account in the means test which determines how much a care home resident is required to pay towards their care and how much is paid by the state.

Drawing on data from national surveys, this paper presents an analysis of trends in these factors and highlights some of the implications for modelling future social care funding for older people. The first part of the paper presents analyses of past trends in functional disability, marital status, and household composition. The second part contains an analysis of trends in homeownership and the final part presents an analysis of trends in the age of leaving full-time education.

Past trends in functional disability, marital status, and household composition in the HSE data

Disability, marital status, and living arrangements (or household composition) are important drivers of demand for unpaid and formal care for older people (Vlachantoni et al., 2015). The CPEC older people's model makes projections of the number of people receiving unpaid and formal community-based care by explicitly assuming that those drivers follow particular trends in the future. In the base case, it assumes that rates of disability by age and gender remain constant over time, and marital status rates by age and gender change in line with the ONS 2011-based marital status and cohabitation projections (Office for National Statistics, 2018). Household composition rates remain constant by age, gender and marital status. To understand better the historical contexts of those assumptions and inform the projection modelling, we investigated the past trends in disability, marital status and

household composition rates using data collected between 2011 and 2019 in the Health Survey for England (HSE).

The HSE is a repeated cross-sectional survey. A different sample is surveyed each year (NatCen Social Research, 2019). We focused on older people aged 65 and over. The total sample size for HSE 2011-2019 is 19,546. The disability variable has six categories: independent, IADL limitations, difficulties with performing ADL tasks, one ADL limitation, two ADL limitations, and three or more ADL limitations. The marital status and living arrangements variable has four categories: single people living alone, single people living with others (including children and other family members), couples living alone, and couples living with other people. These are also the categories being implemented in the CPEC projection model.

We calculated the raw percentages of people with different levels of functional disability and the percentages of people with different marital statuses and living arrangements. Three-year simple moving averages were used to boost sample size and reduce random fluctuations. We also calculated the annual change rates in the prevalence of functional disability. In addition, multinomial probit models were run for 3-year intervals on those variables, controlling for age and gender. We calculated the average predicted probability of being in different levels of functional disability or being in different categories of marital status and living arrangements. We used the two different methods to cross-validate each other's results.

Results

The HSE data showed that the percentage of independent people increased from 67% in 2011-2013 to 69.5% in 2015-2017 and remained at 69.5% till 2019 (Table 1). Correspondingly, the subcategories of ADL limitations (One ADL limitation, Two ADL limitations) decreased from 2011 to 2019. For the ADL difficulty group, it decreased from 14.5% to 12.9% from 2011-2013 to 2015-2017 but increased back up to 14.6% in 2017-2019. The proportion of people with three or more ADL limitations also fluctuated between 2011 and 2019, with the level in 2017-2019 being 0.32 percentage points lower than in 2011-2013.

Table 1 Prevalence of functional disability, 2011-2019, raw percentages

	2011-2013	**2012-2014**	**2013-2015**	**2014-2016**	**2015-2017**	**2016-2018**	**2017-2019**
Independent	66.96%	68.13%	68.92%	68.90%	69.52%	69.43%	69.49%
IADL only*	4.23%	3.84%	4.26%	4.19%	4.49%	4.16%	3.78%
Diff ADL*	14.53%	14.28%	13.89%	13.65%	12.88%	13.68%	14.56%
One ADL*	7.15%	6.88%	6.40%	6.43%	6.57%	6.26%	5.97%
Two ADLs*	2.94%	2.74%	2.61%	2.55%	2.52%	2.40%	2.33%
Three or more ADLs*	4.16%	4.10%	3.89%	4.24%	3.98%	4.04%	3.84%

*Note:

IADL only – Inability to perform at least one instrumental activity of daily living (IADL)

Diff ADL – Difficulty in performing at least one activity of daily living (ADL)

One ADL – Inability to perform one activity of daily living (ADL)

Two ADLs - Inability to perform two activities of daily living (ADL)

Three or more ADLs - Inability to perform at least three activities of daily living (ADL)

The regression analyses show that the average predicted probability of being independent increased from 0.670 in 2011-2013 to 0.695 in 2015-2017 and remained at 0.695 till 2019. Correspondingly, the average predicted probability of having ADL limitations (one ADL or two ADL limitations) decreased from 2011 to 2019. The average predicted probability of having difficulties in ADL tasks decreased from 0.145 to 0.129 from 2011-2013 to 2015-2017 but increased back up to 0.146 in 2017-2019. These results are consistent with the trends expressed in raw percentages.

Figure 1 Average predicted probability of being independent, 2011-2019

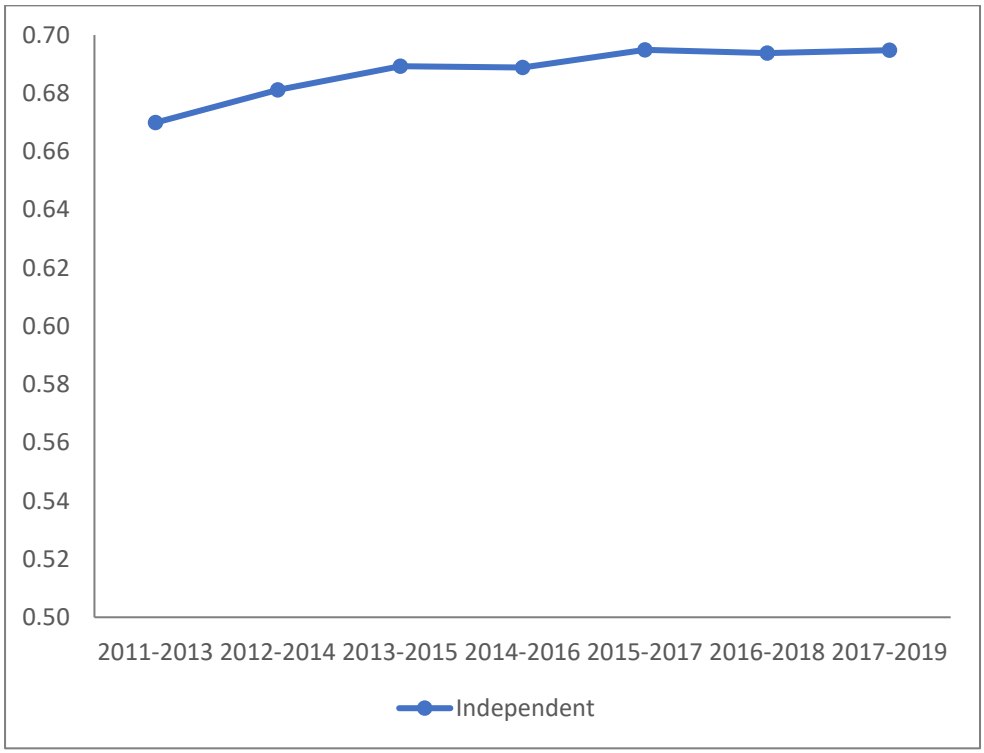


Figure 2 Average predicted probability of IADL or ADL disability, 2011-2019

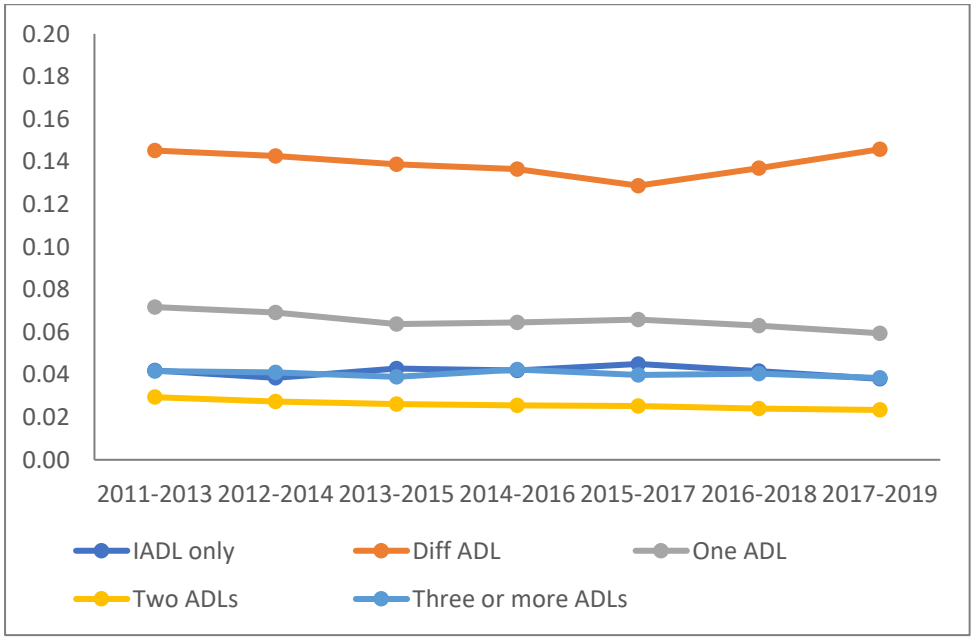


Table 2 shows the prevalence of ADL or IADL disability between 2011 and 2019 broken down by age and gender. It can be noted that the percentage of independent people increased during this period among men aged 65 and over and women aged between 65 and 84 years old. This is broadly consistent with the results shown in Table 1. The prevalence of disability decreased for almost all groups of men. The exception is men aged 85 and over with two or more ADL limitations. The prevalence of disability increased by 2.9% annually on average. The prevalence of disability increased among women aged between 65 and 74 years old with two or more ADL limitations and those aged 85 and over with one ADL limitation.

Table 2 Prevalence of disability broken down by age and gender, 2011-2019

Male		2011	2019	Average annual change rate
65-74	Independent	79.6%	80.7%	0.17%
	IADL limitations/ADL difficulties	12.5%	12.3%	-0.17%
	One ADL limitation	2.8%	2.1%	-3.70%
	Two or more ADL limitations	5.2%	5.0%	-0.48%
75-84	Independent	63.7%	72.2%	1.57%
	IADL limitations/ADL difficulties	22.0%	18.5%	-2.14%
	One ADL limitation	8.8%	4.4%	-8.33%
	Two or more ADL limitations	5.5%	5.0%	-1.26%
85+	Independent	43.5%	48.4%	1.36%
	IADL limitations/ADL difficulties	31.5%	29.5%	-0.84%
	One ADL limitation	14.1%	8.4%	-6.27%
	Two or more ADL limitations	10.9%	13.7%	2.92%
Female		2011	2019	Average annual change rate
65-74	Independent	74.9%	76.3%	0.23%
	IADL limitations/ADL difficulties	16.9%	15.8%	-0.82%
	One ADL limitation	3.4%	3.0%	-1.55%
	Two or more ADL limitations	4.8%	4.9%	0.28%
75-84	Independent	47.0%	56.3%	2.27%
	IADL limitations/ADL difficulties	31.6%	26.8%	-2.02%
	One ADL limitation	11.4%	9.9%	-1.80%
	Two or more ADL limitations	10.0%	7.0%	-4.25%
85+	Independent	25.4%	23.8%	-0.81%
	IADL limitations/ADL difficulties	37.3%	35.7%	-0.56%
	One ADL limitation	16.4%	24.5%	5.12%
	Two or more ADL limitations	20.9%	16.1%	-3.22%

Table 3 shows the prevalence of ADL or IADL disability between 2015 and 2019 broken down by age and gender. The percentage of independent people increased during this period of time among men aged 75 years old and over and women aged 85 years old and over. The prevalence of disability increased among men aged between 65 and 74 and largely decreased among men aged 75 years old and over. For women, the changes in the prevalence of disability vary according to age groups and the number of ADL limitations. For

those aged between 65 and 84 years, the prevalence of IADL limitations increased but that of ADL limitations decreased. For those aged 80 years old and over, the pattern is reversed.

Table 3 Prevalence of disability broken down by age and gender, 2011-2019

Male		2015	2019	Average annual change rate
65-74	Independent	85.7%	80.7%	-1.50%
	IADL limitations/ADL difficulties	8.3%	12.3%	10.29%
	One ADL limitation	2.0%	2.1%	0.68%
	Two or more ADL limitations	4.0%	5.0%	5.56%
75-84	Independent	66.1%	72.2%	2.24%
	IADL limitations/ADL difficulties	20.1%	18.5%	-2.13%
	One ADL limitation	7.8%	4.4%	-13.32%
	Two or more ADL limitations	6.0%	5.0%	-4.68%
85+	Independent	43.5%	48.4%	2.73%
	IADL limitations/ADL difficulties	31.5%	29.5%	-1.67%
	One ADL limitation	14.1%	8.4%	-12.14%
	Two or more ADL limitations	10.9%	13.7%	5.93%
Female		2015	2019	Average annual change rate
65-74	Independent	77.2%	76.3%	-0.29%
	IADL limitations/ADL difficulties	12.9%	15.8%	5.17%
	One ADL limitation	3.8%	3.0%	-5.60%
	Two or more ADL limitations	6.1%	4.9%	-5.36%
75-84	Independent	61.1%	56.3%	-2.04%
	IADL limitations/ADL difficulties	21.4%	26.8%	5.82%
	One ADL limitation	10.3%	9.9%	-1.02%
	Two or more ADL limitations	7.2%	7.0%	-0.65%
85+	Independent	23.5%	23.8%	0.26%
	IADL limitations/ADL difficulties	38.2%	35.7%	-1.73%
	One ADL limitation	22.8%	24.5%	1.80%
	Two or more ADL limitations	15.4%	16.1%	1.02%

In terms of past trends in marital status, the HSE data showed that the proportion of single older people decreased from 40.7% in 2011-2013 to 37.7% in 2015-2017, before increasing to 38.5% in 2017-2019. Correspondingly, the percentage of married people increased from 59.3% in 2011-2013 to 62.2% in 2015-2017, before decreasing slightly to 61.5% in 2017-2019 (Table 4).

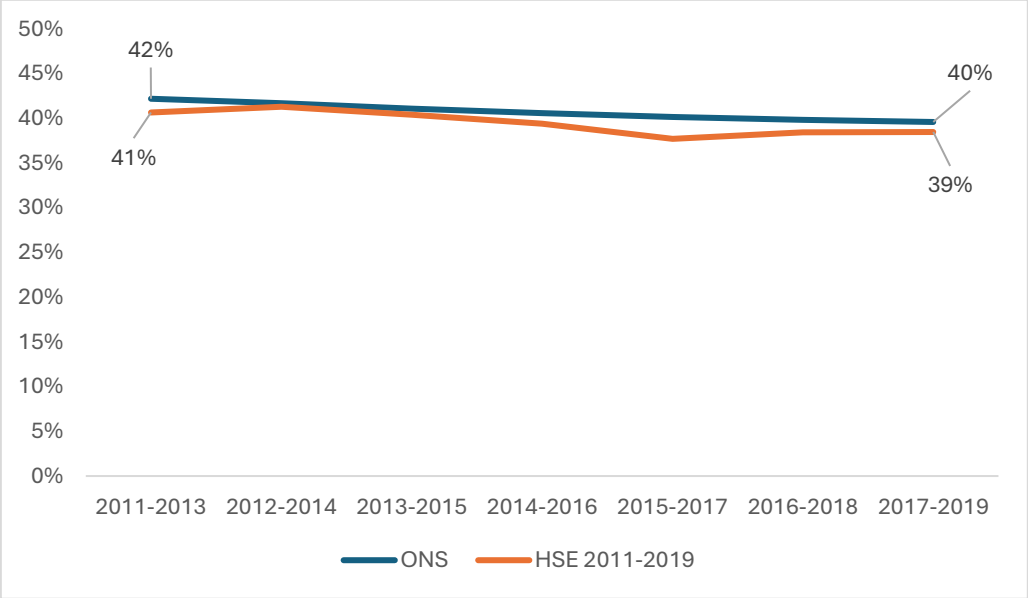
Table 4 Marital status, 2011-2019, raw percentages

	2011-2013	**2012-2014**	**2013-2015**	**2014-2016**	**2015-2017**	**2016-2018**	**2017-2019**
Single	40.68%	41.32%	40.44%	39.44%	37.73%	38.45%	38.50%
Married	59.32%	58.68%	59.56%	60.56%	62.27%	61.55%	61.50%

We compared the proportion of single older people reported in the HSE data with those reported in the ONS 2011-based projections (Office for National Statistics, 2018). Like the HSE analysis, the ONS projections are restricted to the household population. The overall

trend is similar between the two sources of data. The ONS projected that the proportion of single older people decreased from 42.2% to 39.6%, whereas the HSE data showed the proportion decreased from 40.7% to 38.5% between 2011 and 2019 with a certain degree of fluctuations during this period (Figure 1).

Figure 1 Comparing ONS projections of single older people and HSE data, 2011-2019



The percentage of single people living alone decreased from 35.5% in 2011-2013 to 33.9% in 2015-2017 before remaining stable at around 34% till 2017-2019 (Table 5). On the other hand, the percentage of married couples living by themselves increased from 54.4% in 2011-2013 to 57.2% in 2015-2017 and then decreased to 56.2% in 2017-2019. For single people and married couples living with others, their respective percentages decreased slightly from 2011-2013 to 2014-2016/2015-2017 before rising up in 2017-2019.

Table 5 Marital status and household composition, 2011-2019, raw percentages

	2011-2013	**2012-2014**	**2013-2015**	**2014-2016**	**2015-2017**	**2016-2018**	**2017-2019**
Single alone	35.48%	35.38%	34.56%	34.50%	33.92%	34.15%	33.86%
Single children & others	4.60%	4.65%	4.63%	4.48%	4.15%	4.63%	4.96%
Married couple only	54.39%	54.68%	55.55%	56.41%	57.18%	56.41%	56.22%
Married couples & others	5.51%	5.27%	5.23%	4.59%	4.72%	4.79%	4.95%

The average predicted probability of being a single person and living alone decreased from 0.354 in 2011-2013 to 0.340 in 2015-2017 before remaining stable at around 0.340 till 2017-2019 (Figure 3). The average predicted probability of living as married couples by themselves increased from 0.544 in 2011-2013 to 0.571 in 2015-2017 and decreased to 0.562 in 2017-2019 (Figure 3). The average predicted probabilities of being a single person

and living with others decreased slightly from 2011-2013 to 2014-2016/2015-2017 before increasing back up till 2017-2019. Again, these results are consistent with the trends expressed in raw percentages (Table 5).

Figure 3 Average predicted probability of being single and living alone and living with spouse only, 2011-2019

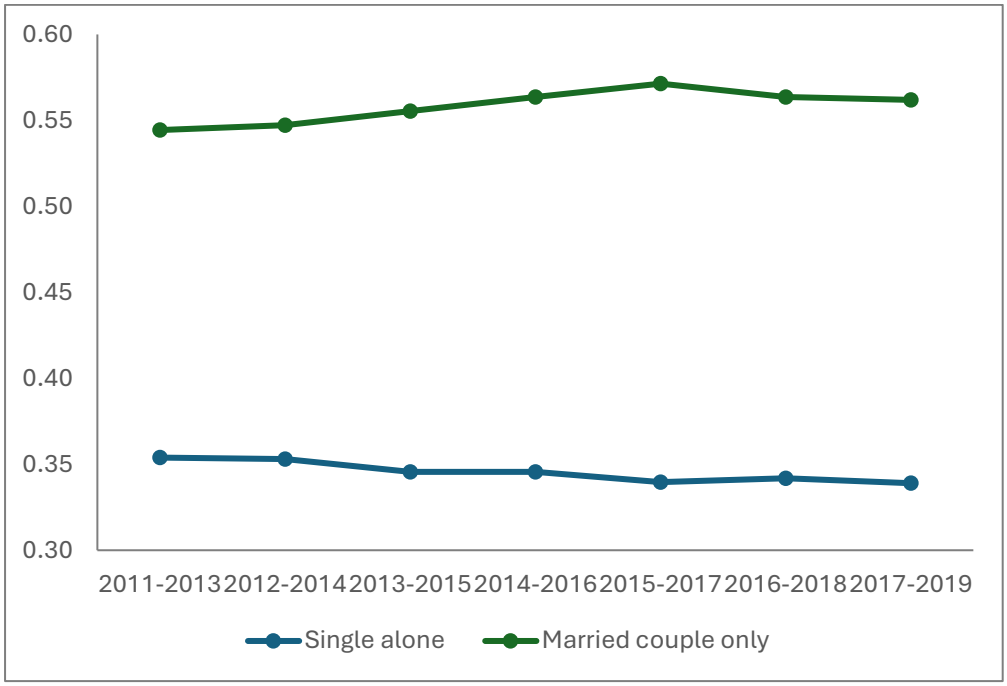
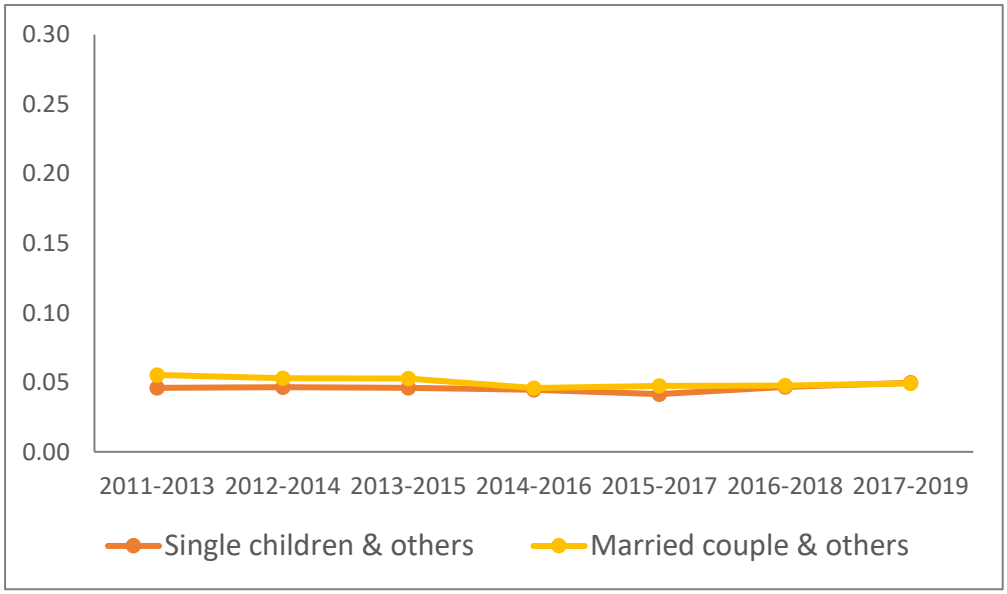


Figure 4 Average predicted probability of being single and living with others and living with both spouse and others, 2011-2019



Discussion

An analysis of HSE 2011-2019 data showed that there is a general upward trend in the proportion of people without disability and a general downward trend in the proportion of people with 1 ADL and 2 ADL limitations. The trends of disability between 2015 and 2019 seem quite different from those between 2011 and 2019. For the former, the annual change rate can be fairly large in particular groups of the population, for example, an increase of 10.3% among men aged between 65 and 74 with IADL limitations or ADL difficulties and a decrease of 13.3% among men aged 75 and 84 with one ADL limitation. How the prevalence of disability has changed in the past not only depends upon the demographic characteristics and the level of disability but also relates to the time horizon under investigation.

Meanwhile, we observed a general upward trend in the proportion of couples living by themselves and a general downward trend in single people living alone during the period from 2011 to 2019. Meanwhile, the trends in the proportion of single older people reported by the ONS projections and the HSE data are highly comparable. Beneath the overall trends demonstrated in the HSE data, fluctuations are noticeable on a year-by-year basis. This is expected given that the HSE collected a different and random sample from the population each year.

It is important to note that past trends may not provide a reliable basis for projecting future trends, especially not over a long period. For example, on the disability outcome variable, the observed trends could represent changes in attitudes towards reporting ADL/IADL limitations, or changes in the willingness or ability of disabled older people to participate in the HSE. There is not a particularly strong pattern emerging from the HSE data, and in such cases as the three or more ADL limitations, the prevalence showed considerable fluctuations over time. Given these results, it can be argued that our base case assumptions about disability, marital status, and living arrangements in the projection model remain reasonable.

Trends in age of leaving full-time education and their implications for projections of long-term care funding for older people

Introduction

Analysis of the Health Survey of England suggests that whether an older person left school before or after the age of 15 or 16 is statistically significantly associated with whether they receive formal community care services. Such a relationship remains strong after we control for age, gender, level of functional disability, marital status, and living arrangements in the regression analyses (Lyu et al., 2024). This association is built into the CPEC model of long-term care finance for older people. The CPEC model takes projections of the proportions of older people who left school before or after 15, by age group from Caresim. Caresim is a dynamic microsimulation model which can make projections of the proportions of future generations of older people who left school after age 15/16 using a quasi-cohort approach (Adams et al., 2016). That approach assumes that everyone over the age of 65 has completed their full-time education. Caresim is based on a representative sample of the English population taken from the UK Family Resources Survey (FRS) (Department for Work and Pensions, 2021).

Here we provide an analysis of trends between 2004 and 2019 in the proportion of people in England who left full-time education (FTE) after age 15/16, as reported in the FRS. The analysis helps to explain changes in the Caresim quasi cohort projections of the proportion of older people who left school after age 15/16 which have resulted from updating the FRS data used by Caresim from 2010 to 2019. Note that the minimum school leaving age was raised from 15 years to 16 years from September 1972 affecting people aged 61/62 in 2019 (i.e. aged 15 in the academic year 1972/73).

Data, definitions and methods

The data source that we use is FRS for the years from 2004 to 2019. We first analyse the FRS by survey year and age at the time of the survey. We also conduct quasi cohort analysis in which we classify FRS respondents by their age in a specific year (e.g. 2004 or 2019), rather than age at time of observation. This allows us to see how the proportions of people who left FTE after age 15/16 have changed amongst different birth cohorts.

We exclude from the cross-sectional analyses individuals who are aged under 35 when interviewed in the FRS and from the quasi-cohort analysis those who are aged under 35 in 2019. A large majority of the sample used in the analysis can thus reasonably be expected to have completed their full-time education.

Results

Figure 1 shows the cross-sectional proportions of individuals in the FRS who reported having left FTE after the age of 15 in each year from 2004 to 2019. Figure 2 is the equivalent using an age threshold of 16. Figures 3 and 4 show corresponding quasi-cohort analysis where 2019 proportions are the same as the cross-sectional rates for the age group. For earlier years, the proportions are for those aged 5, 10 or 15 years younger.

Although this quasi-cohort analysis gives some indication of what individuals may have experienced over their lifetimes, the patterns we observe may also be due to the fact that we are not following the same individuals over time. The composition of the cohorts represented in the FRS could be changing, for example as a result of migration or changes in differential response to the FRS. The open-ended age cohort (80+ in 2019, 65+ in 2004) is particularly likely to be subject to compositional change. Higher mortality amongst those who left FTE at

or below 15/16 could explain the increases over time in the proportion of this cohort who left FTE after the age of 15/16.

From the cross-sectional analysis we can see that amongst age groups from 45+, there have been steady increases in the proportions of people who left FTE after the age of 15 or 16. However, these proportions remain age-related with lower proportions of older age groups having left FTE after the age of 15/16. Amongst younger age groups, the proportion staying in education beyond 15 had reached over 90% in 2004 and has remained at or above this level. The pattern over time and across age groups is similar if the threshold is set at 16 rather than 15 although with more room for further increase between 2004 and 2019 for younger age groups.

There does not appear to have been a step change attributable to the 1972 rise in the school leaving age. Rather there had already been an increase in the proportion staying in FTE beyond 15 when the school leaving age was raised, as indicated by the steady increase over the period in the proportions for the older age groups who were unaffected by the rise in school leaving age.

The quasi-cohort analysis shows for the cohorts who are aged 75-79 and 80+ in 2019, that there was a slight increase as these cohorts aged in the proportions who stayed in FTE beyond 15/16. This could be explained by higher mortality amongst those leaving FTE at 15/16 or younger, such that the survivors in these cohorts are disproporionately those who remained in FTE beyond 15/16. Since the FRS contains only those living in private households, the same pattern could be observed if those with fewer years of FTE were more likely to enter a care home in later life than those who remained in FTE longer.

Conclusion

Over the period analysed, there have been substantial increases in the proportions of older people who remained in FTE beyond 15 or 16. These explain why moving from the 2010 to 2019 FRS results in a higher proportion of older people who stayed in FTE after reaching age 15/16 in the base year and, according to our projections, in future years. This change may be greater than we observe for similarly produced projections of owner-occupation (see next section) because for the latter we had made a base-year adjustment to owner-occupation rates to capture trends between 2010 and 2017. A similar adjustment was not made for education.

The fact that we do not take account of any education-related differential mortality, or other factors which may underlie the observed quasi-cohort increase at the oldest ages in the proportion who remained in FTE beyond 15/16, needs to be acknowledged. However, we know of no data that would allow us to take such factors into account[1].

There does not appear to have been a discrete change in the trend towards more people staying in FTE beyond 15 as a result of the 1972 rise in the school leaving age. This suggests that in our modelling we can continue to use a single threshold of 15 or 16 years to distinguish two educational groups. In view of the, as yet, still relatively small proportions of the very oldest age group (where care needs are highest) that remained in education beyond 16, it is probably advisable to continue to use the threshold of 15. This may need to be reviewed in the future as those who faced a higher minimum school leaving become part of the oldest age groups in the base year.

[1] This would need mortality projections by age of leaving FTE and/or evidence on the relationship between education and care home entry.

Figure 1: Cross-sectional trends in leaving FTE after age 15

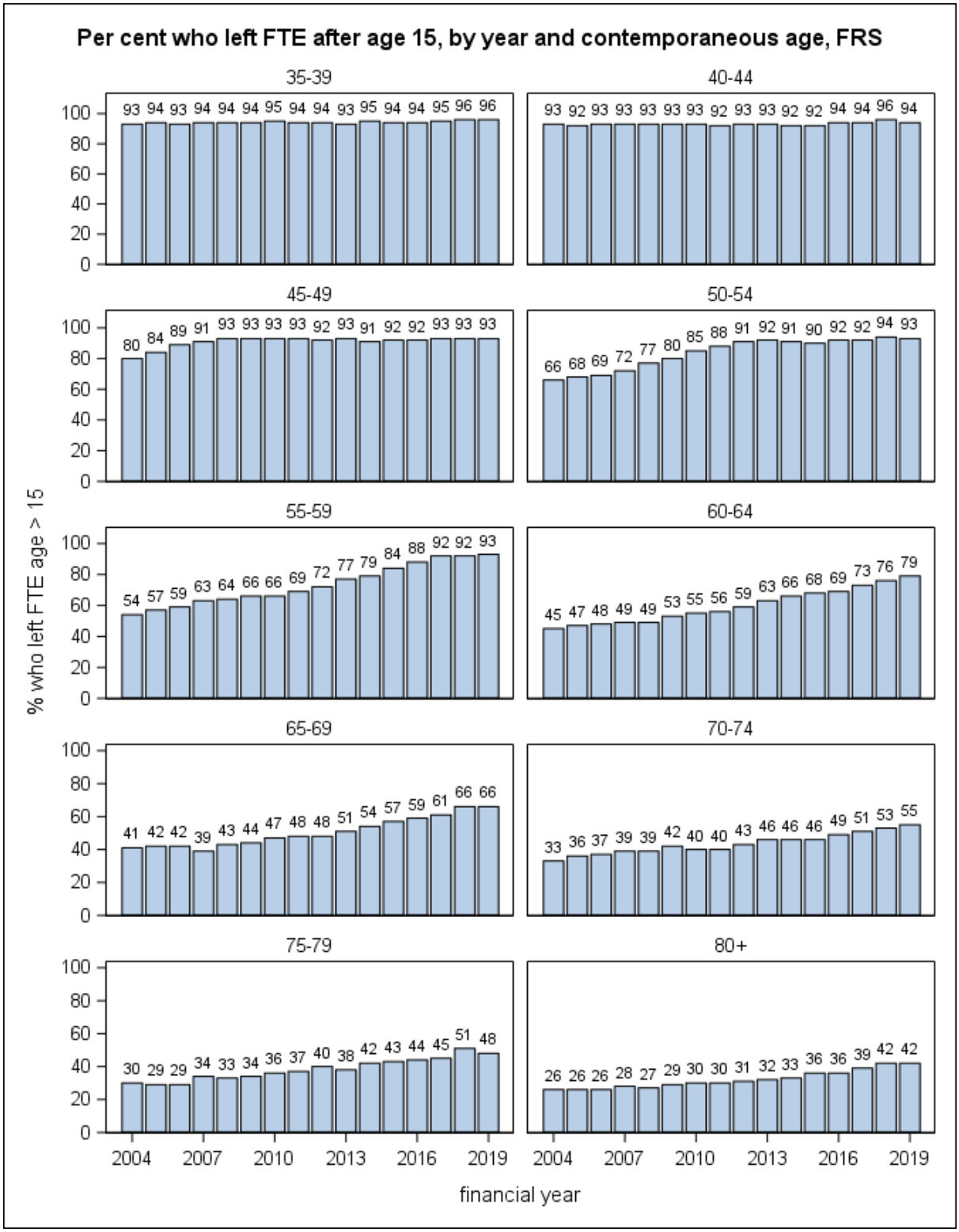


Figure 2: Cross-sectional trends in the leaving FTE after age 16

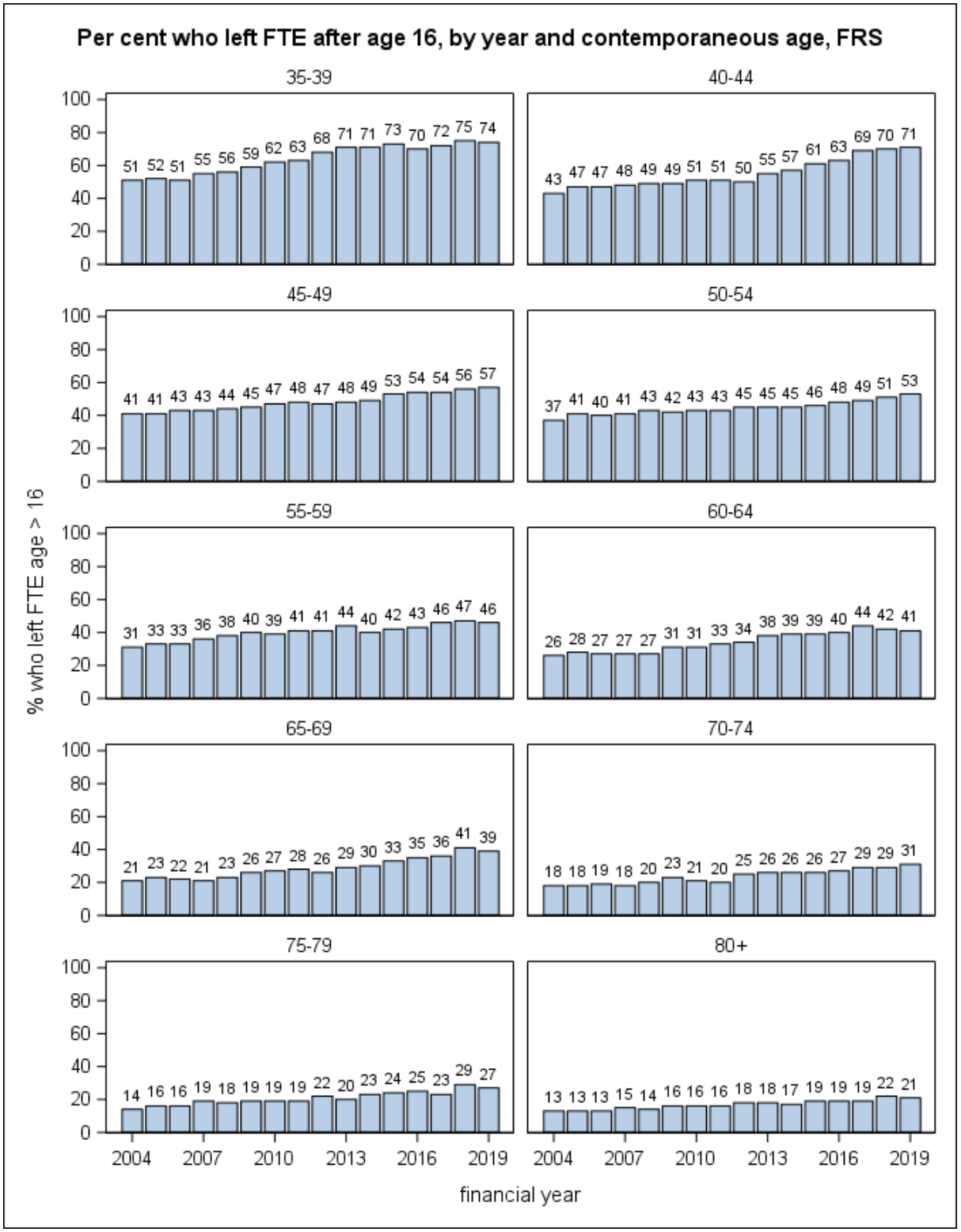
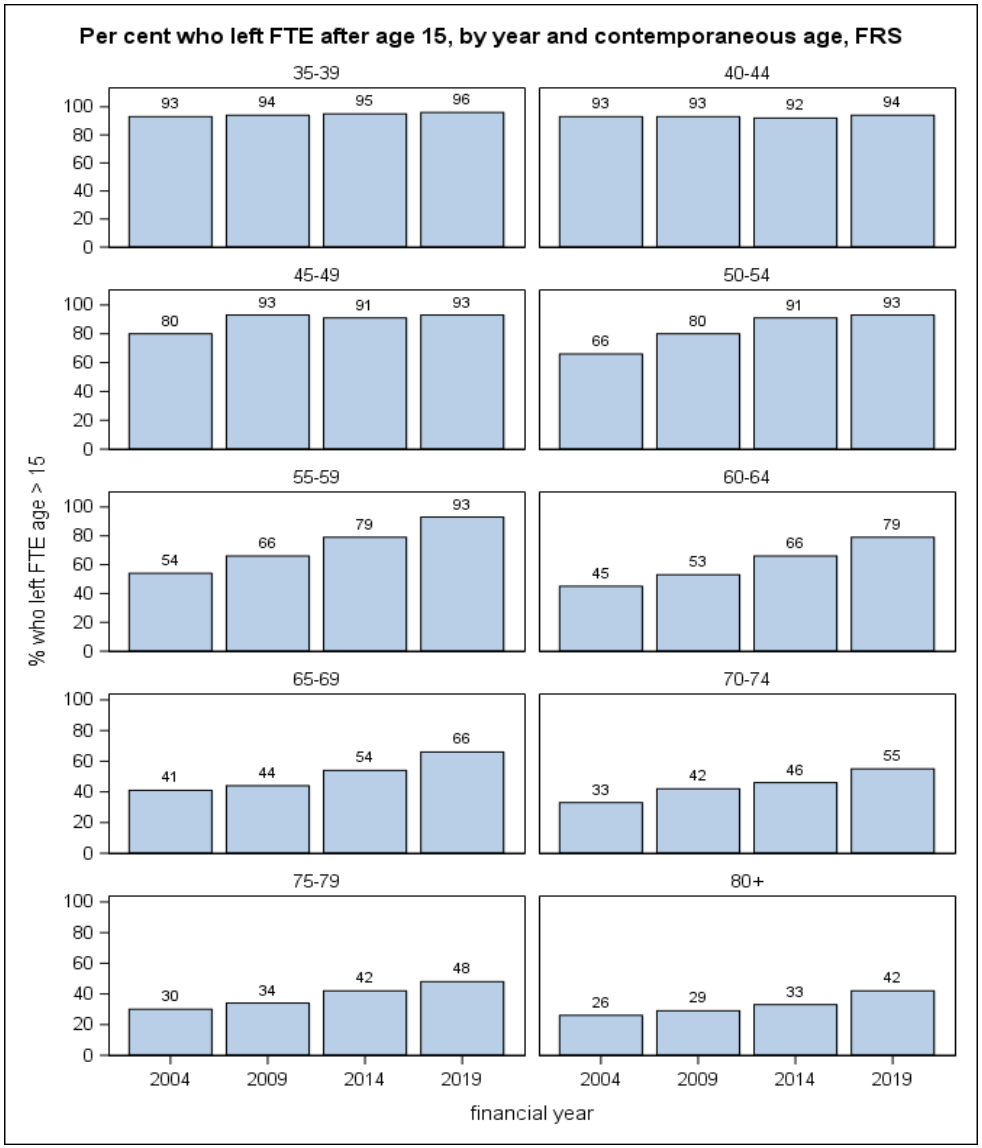


Figure 3: Cross-sectional and quasi-cohort trends in the proportion of people leaving school after age 15



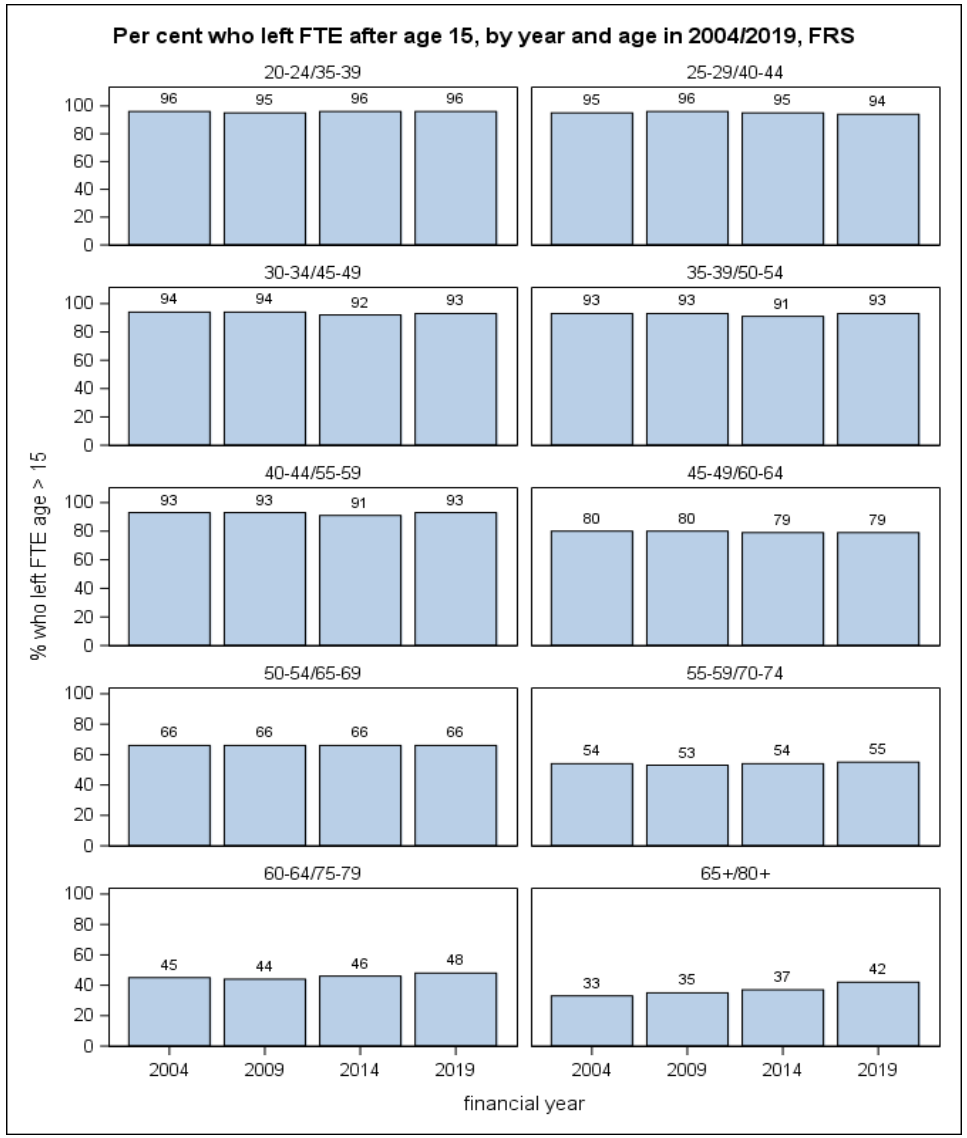
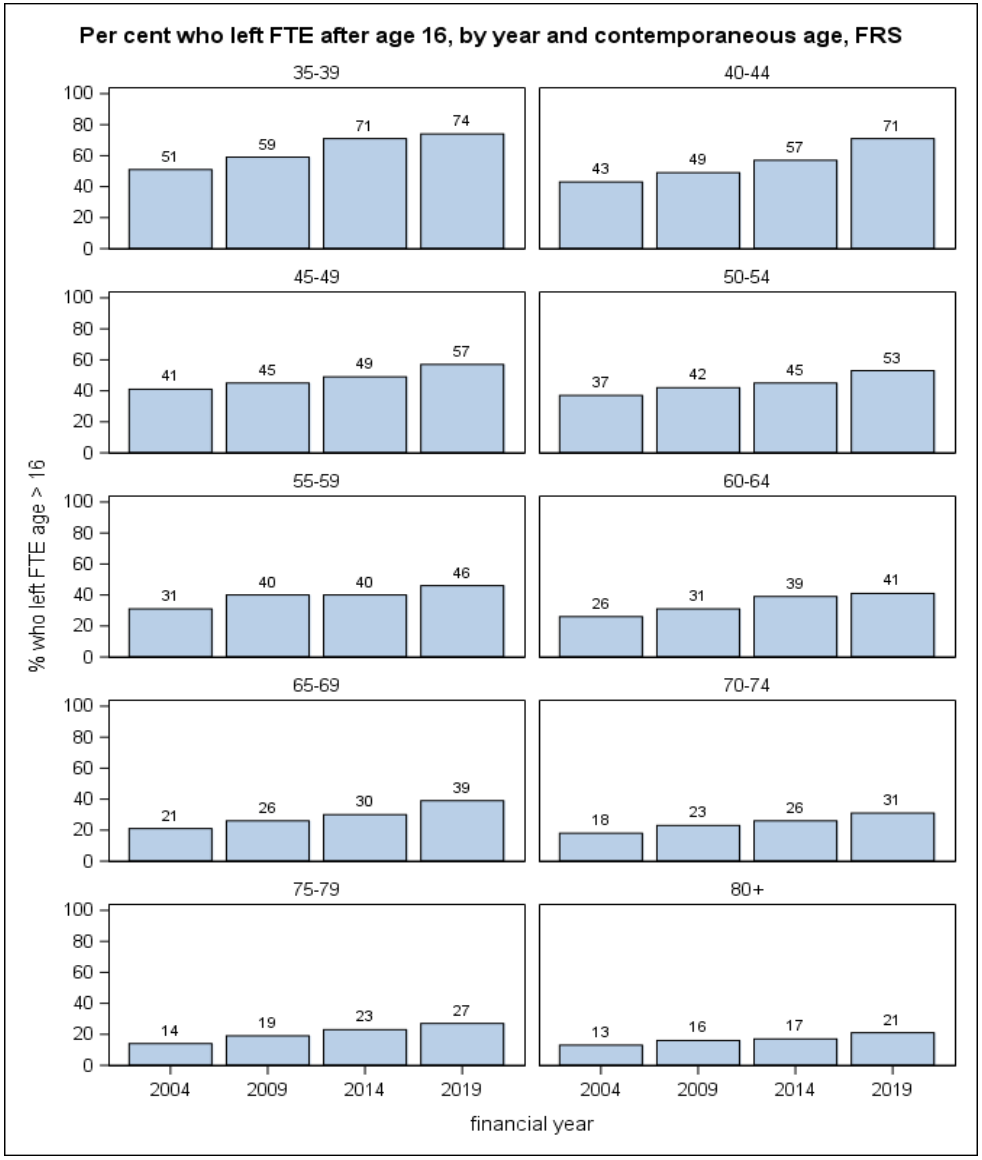
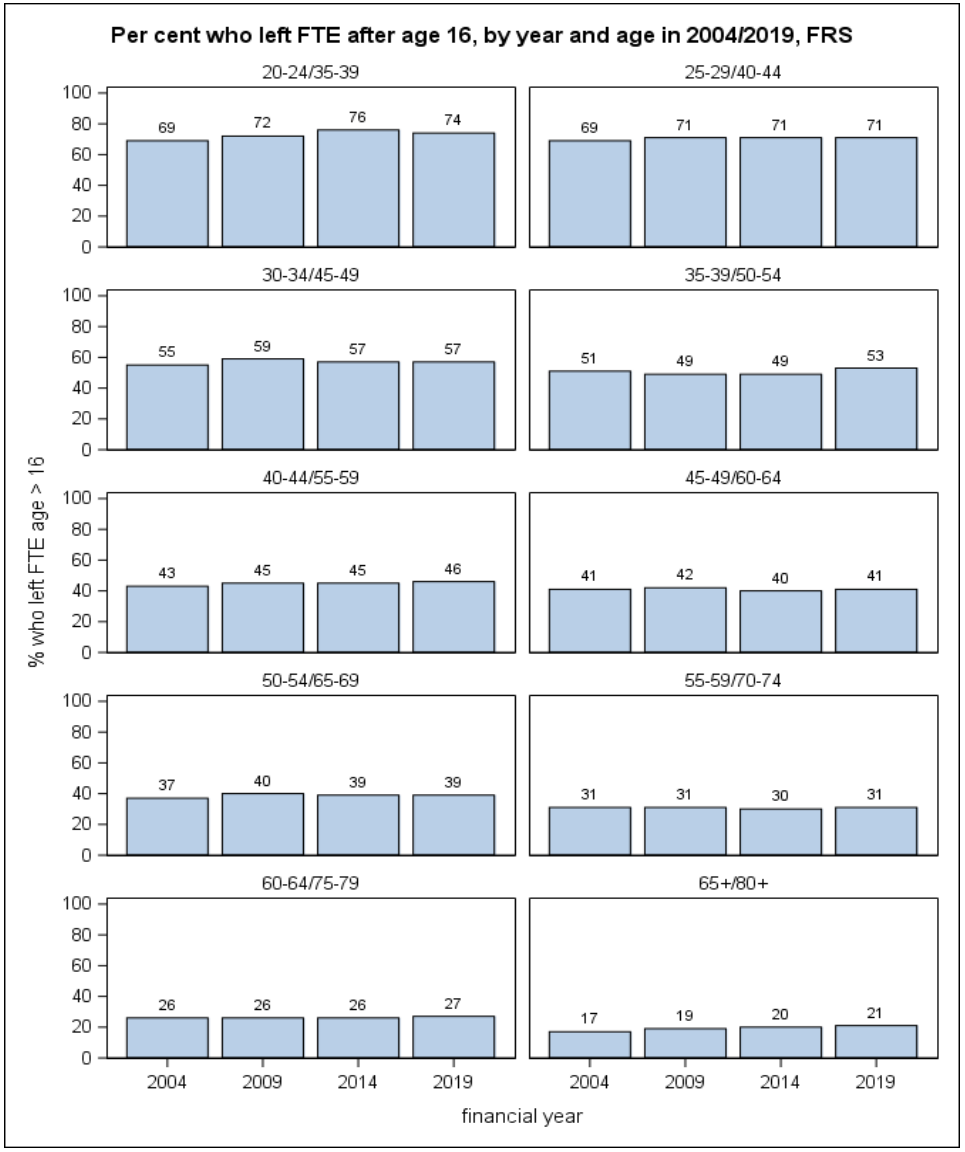


Figure 4: Cross-sectional and quasi-cohort trends in the proportion of people leaving school after age 16


Per cent who left FTE after age 16, by year and contemporaneous age, FRS
35-39
40-44
45-49
50-54
55-59
60-64
65-69
70-74
75-79
80+
51 59 71 74
43 49 57 71
41 45 49 57
37 42 45 53
31 40 40 46
26 31 39 41
21 26 30 39
18 23 26 31
14 19 23 27
13 16 17 21
0 20 40 60 80 100
2004 2009 2014 2019
% who left FTE age > 16
financial year


Per cent who left FTE after age 16, by year and age in 2004/2019, FRS
20-24/35-39
25-29/40-44
30-34/45-49
35-39/50-54
40-44/55-59
45-49/60-64
50-54/65-69
55-59/70-74
60-64/75-79
65+/80+
69 72 76 74
69 71 71 71
55 59 57 57
51 49 49 53
43 45 45 46
41 42 40 41
37 40 39 39
31 31 30 31
26 26 26 27
17 19 20 21
0 20 40 60 80 100
2004 2009 2014 2019
% who left FTE age > 16
financial year

Trends in home-ownership and their implications for projections of long-term care funding for older people

Introduction

In England, if an older person needs care in a care home on a long-term basis, and they own their own home, its value is taken into account, unless a qualifying person (typically a partner) continues to live in their home, in determining how much, if anything, the state will pay towards the cost of their care. Owner-occupation rates amongst older people are therefore a key determinant of how the cost of long-term care for older people is apportioned between the state and the individual. From 1980 the proportion of households in England which were owner-occupied rose steadily from 57% to peak at 71% in 2003 before falling back to 65% in 2020 (Department for Levelling Up, 2022). This declining trend has been driven by falling owner-occupation rates amongst younger adults. For example, the proportion of households in the English Housing Survey where the household reference person (Department for Levelling Up, 2019) was aged 25-34 who were owner-occupiers stood at 59% in 2003, falling to a low of 36% in 2013 before rising to 47% by 2020. In fact, over this period, owner-occupation rates fell in all age groups under the age of 65 while continuing to rise for those aged 65 and over(Department for Levelling Up, 2022)

The aim here is to provide analysis of past trends in owner-occupation rates by age, and consider some of the potential implications of these trends for owner-occupation rates amongst future generations of older people. Trends in owner-occupation rates may affect older people's use of formal care and their liability to pay towards its cost, as projected by the aggregate model of long-term care finance developed by the Care Policy and Evaluation Centre (CPEC) and the microsimulation model Caresim (Adams et al., 2016).

Data, definitions and methods

The principal data source that we use is the Family Resources Survey (FRS) for the years from 2004 to 2019 (Department for Work and Pensions, 2021). Our main analysis defines a homeowner as an individual who is a householder (either a head of household or the partner of a head of household)[2] whose household tenure is 'owned outright', 'owned with a mortgage' or 'part owned'. We first analyse the FRS by survey year and age at the time of the survey. We also conduct quasi cohort analysis in which we classify FRS respondents by their age in a specific year (e.g. 2004 or 2019), rather than age at time of observation. This allows us to see how owner-occupation rates have changed amongst different birth cohorts, and, with certain limitations, approximates the experiences of individuals from different cohorts.

Comparisons of the FRS with published analyses of the English Housing Survey (EHS) for the same years, and additional authors' analysis of the 2019 EHS are contained in the Appendix and provide some validation of the FRS analyses which use more disaggregated age groupings than are possible with the EHS. The EHS is a household rather than an individual survey so that in comparisons with the EHS, we analyse the FRS data at the household level, categorising households according to the age of the head of household, or the age of the oldest person in the household, both of which are available in the EHS. Comparisons with EHS are cross-sectional with age corresponding to age at the time of the survey and age groupings constrained by those provided in the EHS published report or in the 'End User License' versions of the EHS datasets available via the UK Data Service. Groupings available in the latter differ for age of head of household and age of oldest

[2] This is the most appropriate approach for the dynamic microsimulation component of our modelling.

household member. The EHS does not have a tenure category ‘shared ownership’ but the numbers of such cases in the FRS is very small, particularly amongst older people, so this difference between the FRS and EHS is unlikely to have a substantial effect on comparisons of the results from the two surveys.

We exclude from the cross-sectional analyses individuals who are aged under 25 and from the quasi-cohort analysis those who are aged under 25 in 2019. Individuals of this age will not have reached the ages where long-term care needs are very prevalent within the time horizon that is of most interest in our long-term care models.

Results

Figure 1 shows cross-sectional home-ownership rates amongst individuals in the FRS from 2004 to 2019. There are clear downward trends over time below the age of 65. Whilst most marked amongst younger adults, it is notable that falls in homeownership rates are substantial amongst 50-54 year olds (falling from 81% in 2004 to 70% in 2019), 55-59 year olds (from 82% to 73%) and 60-64 year olds (80% to 75%). Over the next 20 to 30 years, those currently in these age groups will be reaching the ages where the need for long-term care is highest.

In age groups over the age of 65, home-ownership rates have been more stable and in fact have risen somewhat in the 75-79 and 80+ age groups, from 72% to 81% and from 61% to 78% respectively.

These trends in home-ownership have been accompanied by falling trends in the proportion of individuals who are householders but these falls have been much less than the falls in home-ownership (Figure A 1). It remains the case that over the age of 45, over 90% of individuals are householders but up to the age of 65, they are now less likely to be home-owners than fifteen years ago. There has been a small increase in the proportion who are householders at the age of 80 and over (from 91% in 2004 to 95% in 2019), perhaps indicating a reduction in the proportion of those at the oldest ages living in relatives’ households.

In Figure 3, cross-sectional trends in individual home-ownership rates (left hand panel) are compared with quasi-cohort trends (right hand panel). The latter allows us to see how home-ownership rates change across time for samples representative of different birth cohorts. The 2019 proportions are the same as the cross-sectional rates for the age group. For earlier years, the home-ownership rates shown in the right hand panel are the rates for those aged 5, 10 or 15 years younger. For example, amongst the cohort aged 25-29 in 2019, 25% were home-owners in 2019, 5 years earlier, when they were aged 20-24, only 5% were homeowners, and none were home-owners in earlier years when they were under 20. Relevant to our modelling work is the extent to which tenure changes after the age of about 50. At younger ages, the proportion of a cohort who are home-owners tends to increase steadily as the cohort ages. This was the case for all cohorts who were aged under 45 in 2019. The proportions who were home-owners amongst those aged 50 to 75 in 2019 generally fell between 2004 and 2014, stabilising or picking up slightly between 2014 and 2019. Amongst the cohort aged 75-79 in 2019, home-ownership rates were faily stable between 2004 and 2019 at around 80%, whereas for the cohort aged 80+ in 2019 they rose from 72% in 2004 (when the cohort was aged 65 and over) to 78% in 2019.

Although this quasi-cohort analysis gives some indication of what individuals may have experienced over the last 5 years, the patterns we observe may also be due to the fact that we are not following the same individuals over time. The composition of the cohorts represented in the FRS could be changing, for example as a result of migration or changes in differential response to the FRS. The open-ended age cohort (80+ in 2019, 65+ in 2004) is

particularly likely to be subject to compositional change. Higher mortality amongst those who do not own their homes could explain the increases over time in the proportion of this cohort who are home-owners. In separate analysis of the English Longitudinal Study of Ageing, which interviews the same people every two years, we found that only 1.3% of study members aged 65 and over changed housing tenure during the period 2012 to 2019.

Implications for modelling long-term care funding for older people

One of the main motivations for the analysis presented here is the substantial declines in home ownership that have occurred, mainly at younger ages, in the last fifteen years. The key question for our long-term care modelling is whether, and when, this will result in reduced owner-occupation rates amongst future generations of older users of long-term care. On the basis that long-term care needs are concentrated amongst those aged 80 and over, our analysis suggests that we are unlikely to see reductions in home-ownership amongst that age group for the next fifteen years. After that, much depends on what happens to the housing wealth of today's over 80s when they die. If it is inherited by their children, the downward trends in home-ownership amongst younger generations may not have much effect on the wealth of future generations of over 80s.

It will also be important to consider the extent to which recent trends in housing tenure are related to other factors such as income level. If the fall in home-ownership has been disproportionately experienced by those on lower income, this will have implications for liability to pay for care in later life.

Figure 5: Cross-sectional trends in individual home-ownership

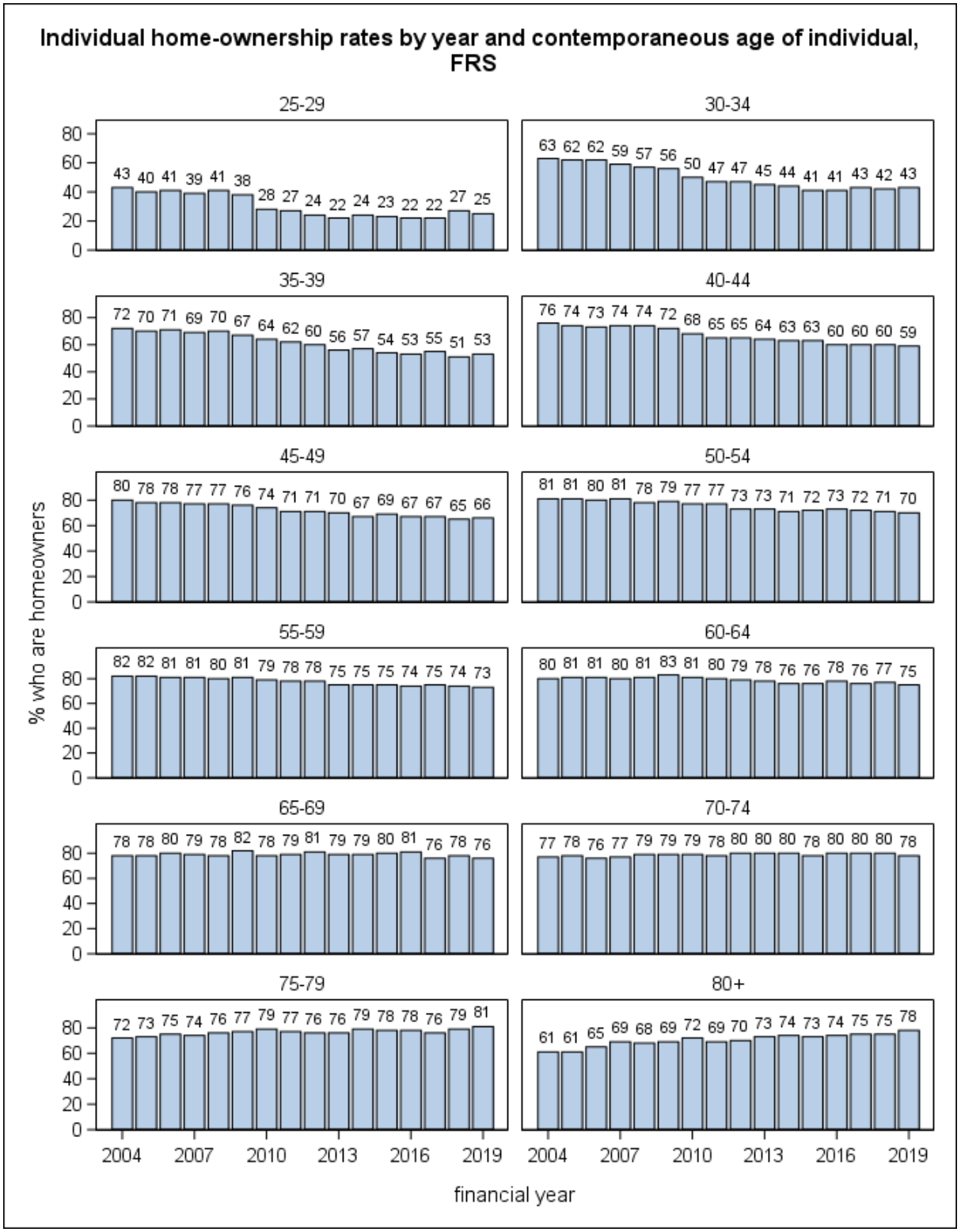
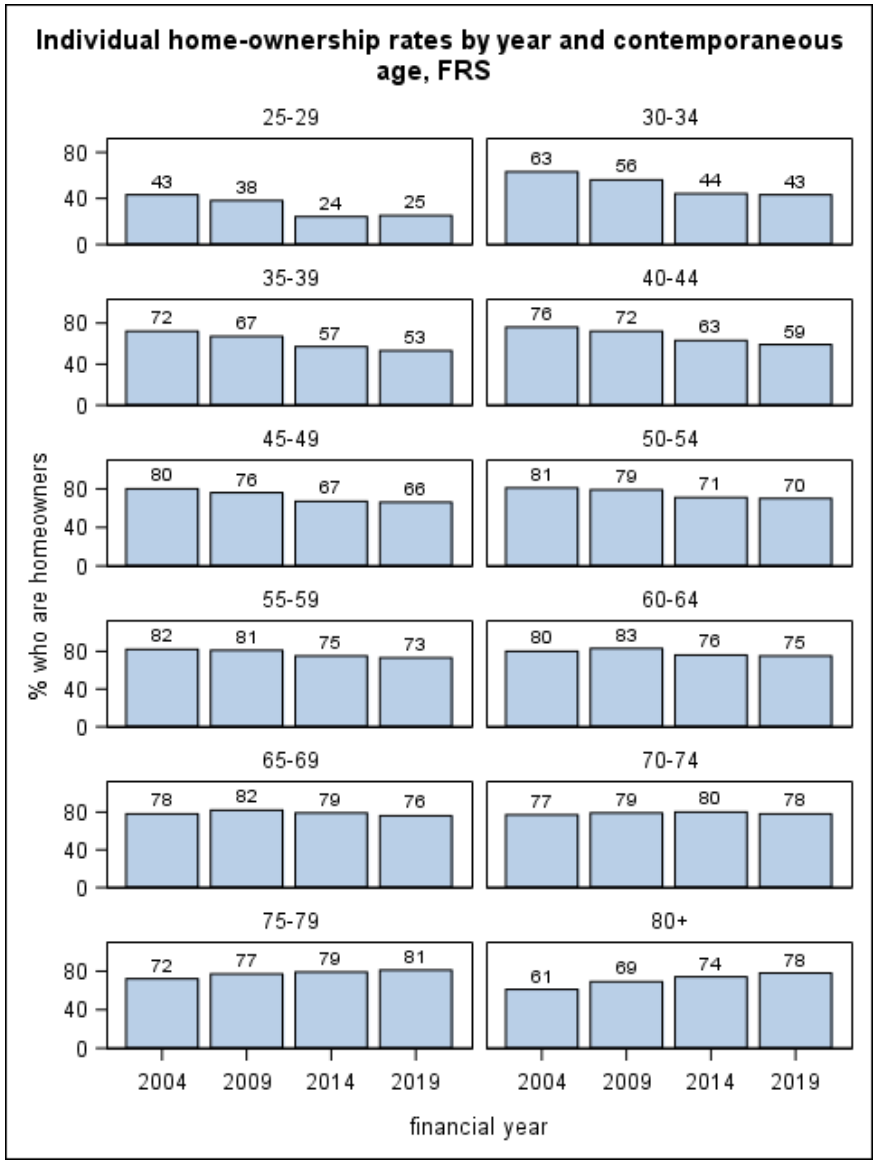
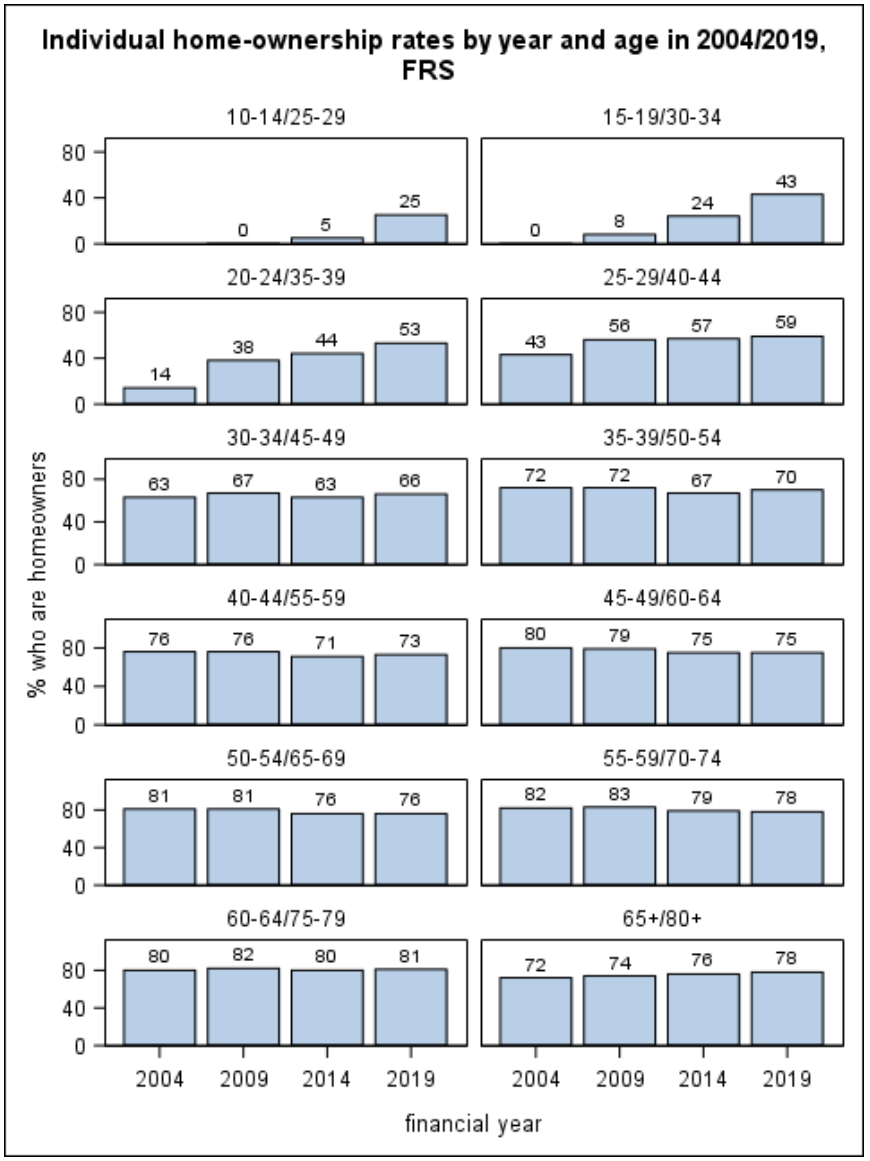


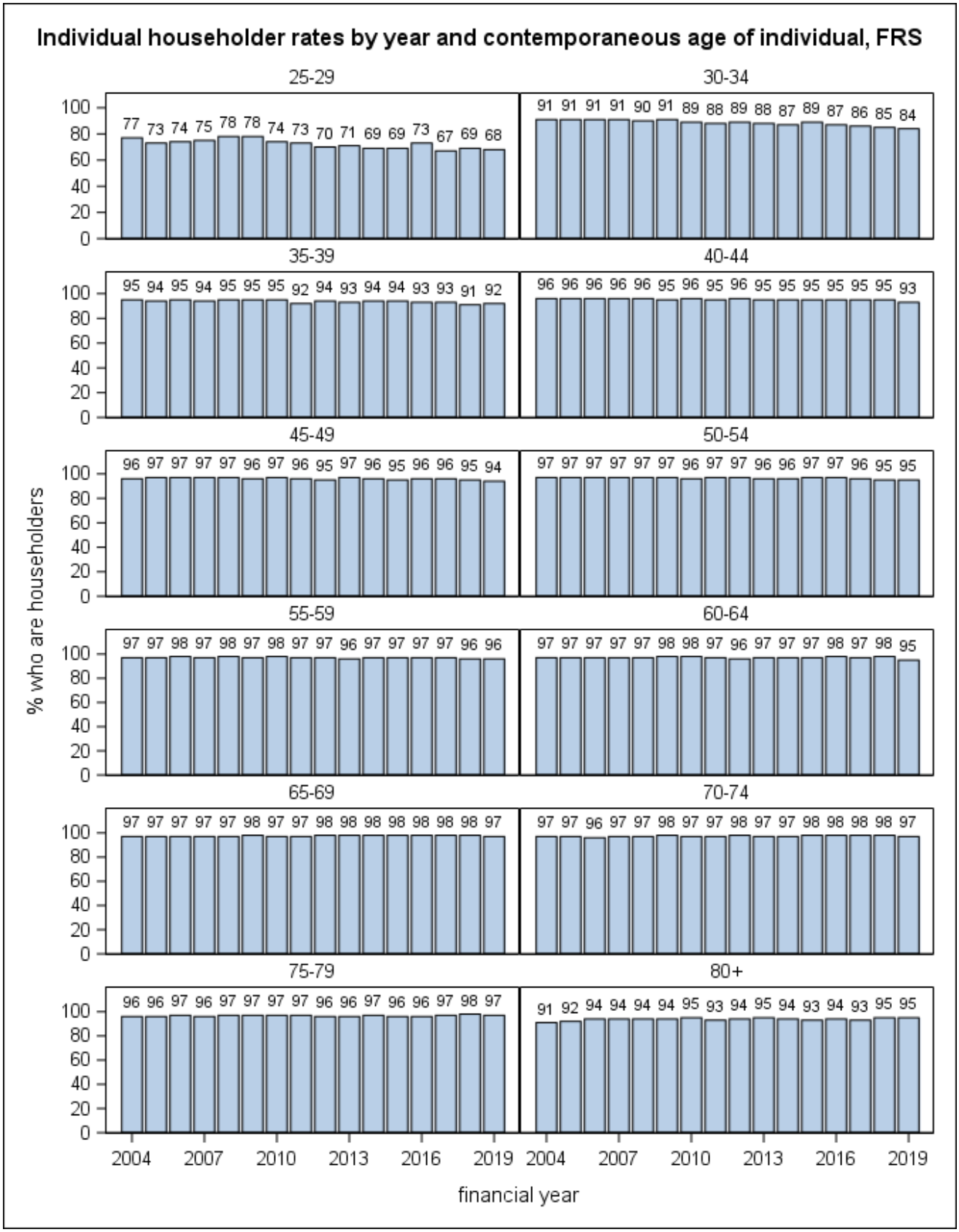
Figure 6: Cross-sectional and quasi-cohort trends in home-ownership





Appendix

Figure A 1:Cross-sectional trends in the percentage of individuals who are householders



Comparisons between FRS and EHS

Figure A 2: Cross-sectional trends in household home-ownership, FRS and EHS

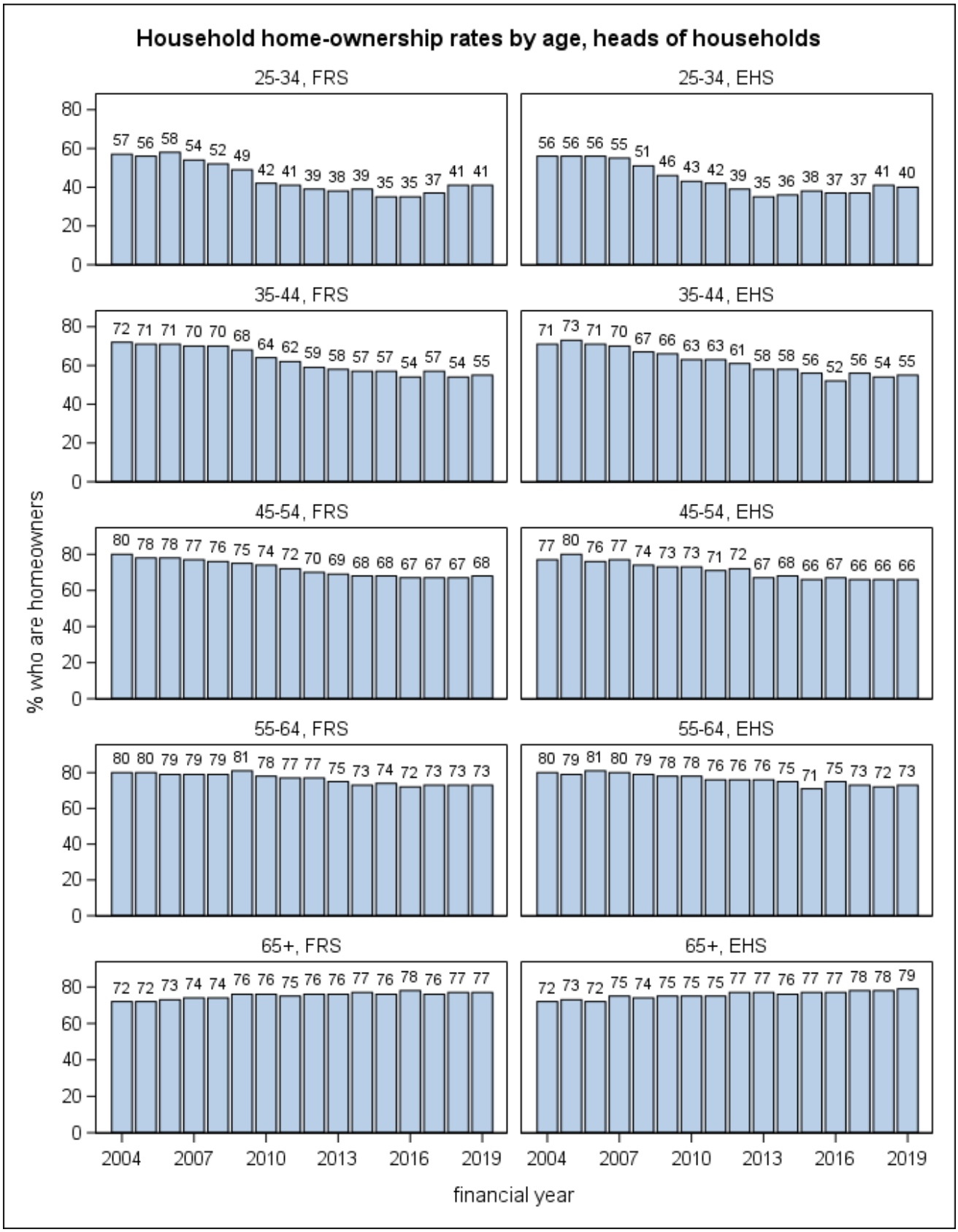


Figure A 3: 2019 household home-ownership by age of head of household, FRS and EHS

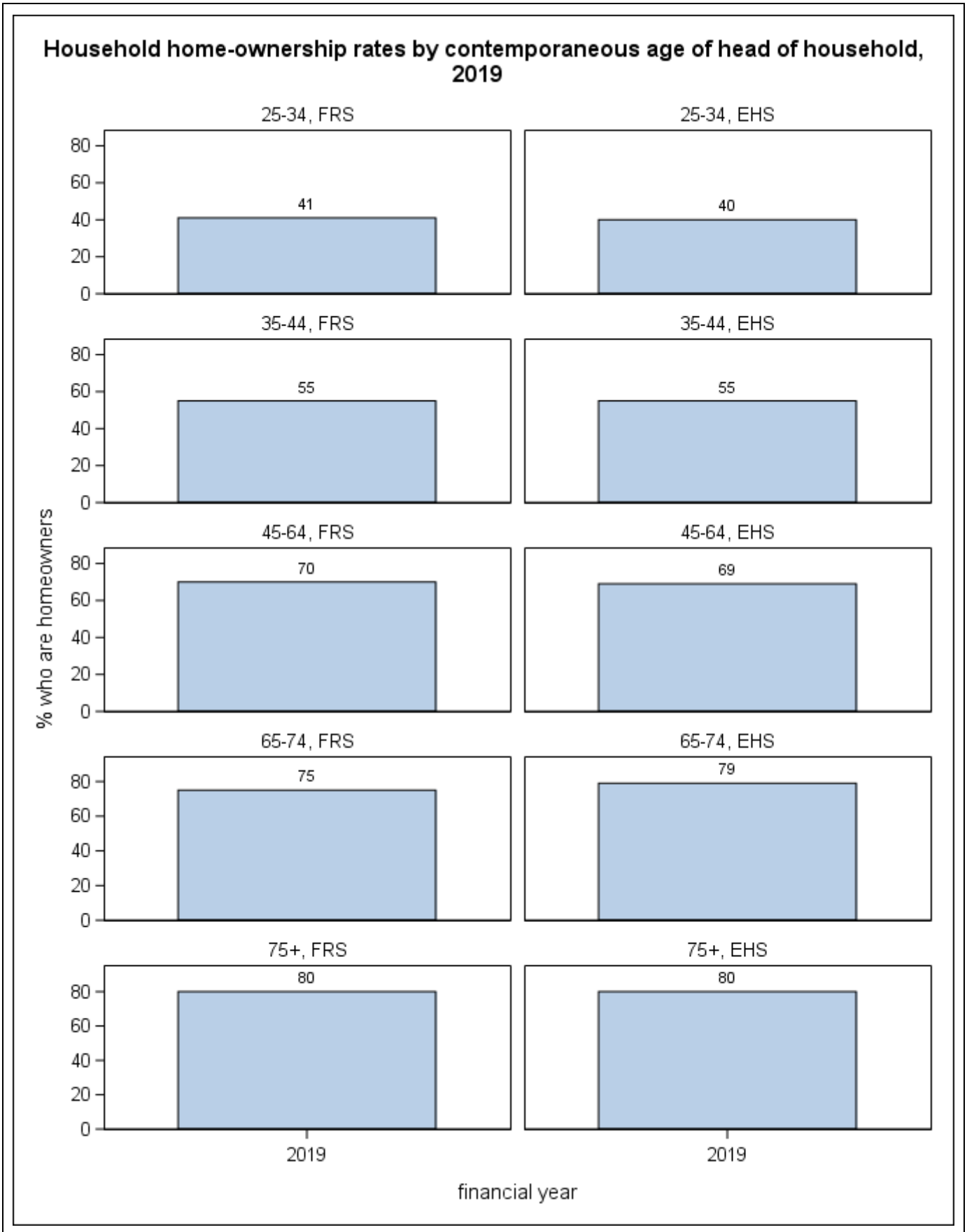
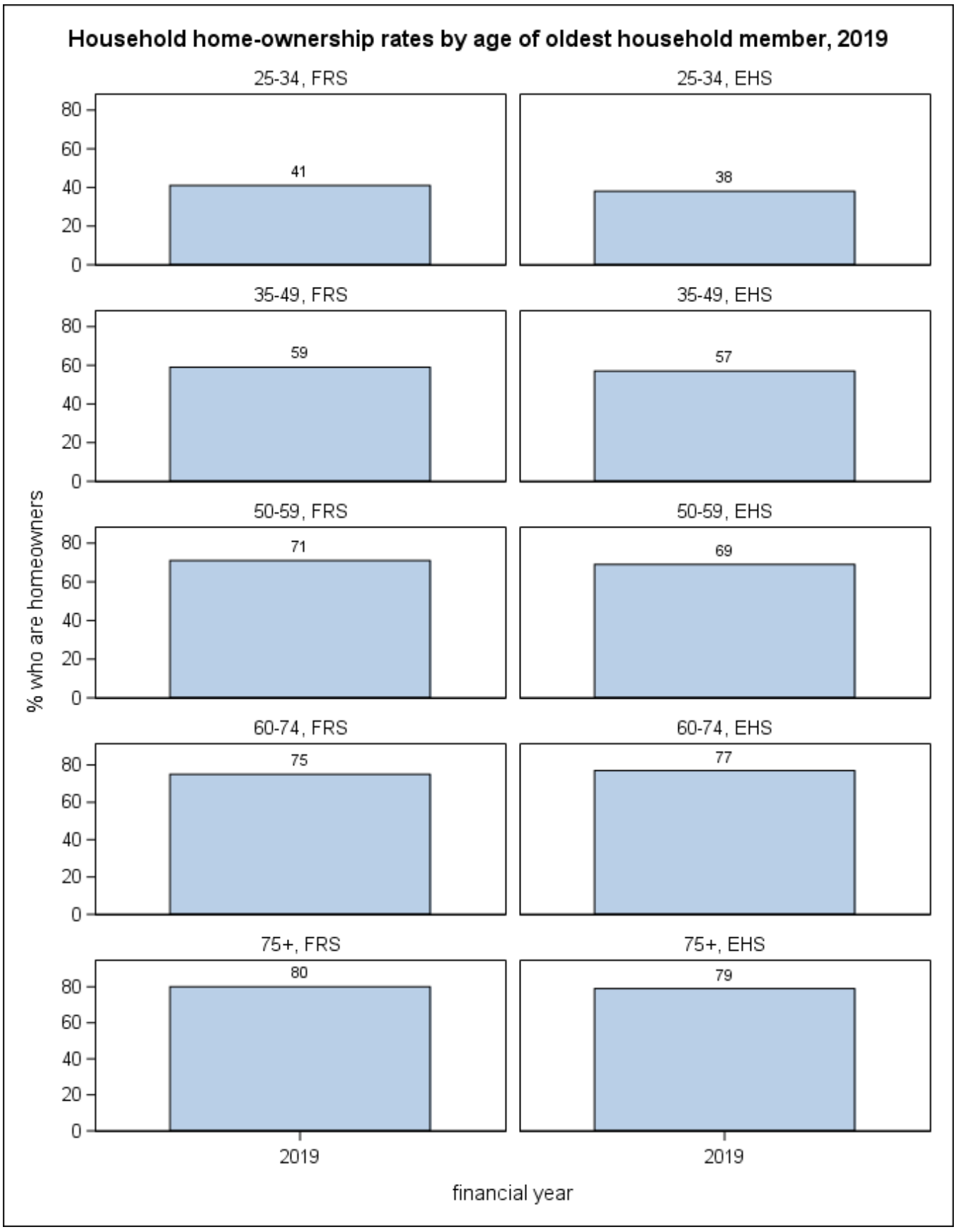

Household home-ownership rates by contemporaneous age of head of household, 2019
25-34, FRS
25-34, EHS
35-44, FRS
35-44, EHS
45-64, FRS
45-64, EHS
65-74, FRS
65-74, EHS
75+, FRS
75+, EHS
41
40
55
55
70
69
75
79
80
80
0
20
40
60
80
% who are homeowners
2019
2019
financial year

Figure A 4: 2019 household home-ownership by age of oldest household member, FRS and EHS



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