# **Housing Affordability in Jersey** 2015



Statistics Unit: www.gov.je/statistics

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The Jersey Housing Affordability Index has been updated in 2015 to reflect the most recent findings of the 2014/2015 income distribution survey and this has resulted in some revisions to previously published results.

## **Summary of Results:**

#### The Jersey Housing Affordability Index

- in 2015 housing affordability in Jersey worsened marginally compared to 2014, primarily due to an increase in the overall median dwelling price
- between 2002 and 2015, a working household with mean net income was not able to service a mortgage affordably on the purchase price of a median-priced house of any size
- a working household with mean net income was able to service a mortgage affordably on the purchase price of a median-priced 1-bedroom flat throughout the period 2002 to 2015
- a working household with mean net income was able to service a mortgage affordably on the purchase price of a median-priced 2-bedroom flat for most of the past 10 years, but not in the years 2006 and 2008
- in order to affordably purchase a median-priced 3-bedroom house in 2015, a household with mean net income would have needed a total deposit of £181,000; in order to affordably purchase a 4-bedroom house, a total deposit of £464,000 would be needed
- the gross income needed to service a mortgage on a median-priced dwelling in 2015 was 2.3 times the mean earnings of individuals (based on FTE employees)
- in 2015, half (50%) of all working households could not service a mortgage affordably on the purchase price of a property at the lower quartile price, a similar proportion to that in 2014
- two-fifths (40%) of young working households in Jersey could not afford to service a mortgage on a lower-priced starter home in 2015, a similar proportion to that in 2014

#### Rental stress (30/40 method)

- in 2015 almost three-quarters (73%) of lower-income households living in qualified private rental accommodation could be considered as being in 'rental stress', the highest proportion of all rental tenure categories
- in 2015 over half (53%) of lower-income households living in non-qualified rental accommodation could be considered as being in 'rental stress'

#### Ratio analysis

- the mean price of 1-bedroom flats was around 3 times the mean gross household income, whilst for 2-bedroom flats this ratio was around 5
- the ratio of mean price to mean gross household income for 2-bedroom houses was around 6
- the ratio of mean price to mean gross household income for 3-bedroom houses was around 8, whilst that for 4-bedroom houses was around 10
- the ratio of mean dwelling price to mean household income was essentially unchanged from 2014 for 1- and 2-bedroom flats whilst an increase was observed for all types of houses
- the ratio of lower-quartile property price to lower-quartile income remained at 9 in 2015

#### Key worker analysis

- the individual earnings of any of the key workers considered were not sufficient to service a mortgage affordably on the purchase of a property at the lower quartile price in Jersey
- the mean earnings of all individual (FTE) employees in Jersey corresponded to less than two-thirds of the gross income needed to purchase a lower-priced dwelling

## **HOUSING AFFORDABILITY IN JERSEY**

## JERSEY HOUSING AFFORDABILITY INDEX



In 2015 **overall** housing affordability worsened marginally compared to 2014 A working household with mean net income:



was **able** to service a mortgage affordably on the purchase price of a 1- or 2-bedroom flat



was **not able** to service a mortgage affordably on the purchase price of a median-priced **house** of any size

## **RATIO ANALYSIS**

In 2015 the **ratio** of mean dwelling **price** to mean household **income**...



was essentially unchanged for 1- or 2-bed flats...



increased for houses

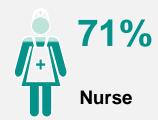
... compared with 2014

## **KEY WORKERS**

Earnings of **key workers** as % of income required to service a mortgage affordably on a lower quartile priced property:







<sup>\*</sup> For each key worker, earnings are those potentially achieved after three to four years of service

## **RENTAL STRESS - 30/40 METHOD**

**73%** 

of lower-income\* households living in qualified private rental accommodation and...

53% of lower-income nearest non-qualified rental accommodation...

...are classified as being in rental stress

<sup>\*</sup> Those households in the lowest 40% of the equivalised income distribution



#### **Overview**

The principal aims of this report are:

- to provide an analysis of the ability of working households in Jersey to buy and rent accommodation "affordably"
- to present trends in housing affordability in the Island over time

The ability of lower income working households, potential first-time buyers and individual key workers to house themselves affordably in Jersey is also examined.

There are four main sections to this report:

- the first section presents the Jersey Housing Affordability Index
- the subsequent sections present complementary measures of housing affordability involving the 30/40 method of identifying rental stress, a Ratio analysis and a Key worker analysis.

The headline measure of affordability, the Jersey Housing Affordability Index (JHAI), is based on a comparison of residential property prices and net household income. This index incorporates the effects of variables such as mortgage interest rates, levels of deposit and mortgage payments relative to income.

The rationale underpinning the JHAI is that of producing an overall single indicator of housing affordability in the Island which enables the sensitivity of the assumptions used in the definition of "affordability" to be explored and also allows comparison over time.

The 30/40 method of identifying rental stress calculates the proportion of lower-income households (in the lowest 40% of the income distribution) which are paying more than 30% of their gross income on rental costs.

The Ratio analysis is based on a direct comparison of property prices and income. Such a measure of housing affordability is conceptually straightforward and enables comparison with other jurisdictions to be made.

The Key worker analysis examines the ability of key workers in Jersey (teachers, police officers and nurses) to purchase property in Jersey.

The measures of affordability presented are derived from information on property prices and income compiled by the States of Jersey Statistics Unit. Due to the availability of information relating to share transfer transactions, the measures of affordability derived from distributions of property prices (e.g. the JHAI and lower quartile comparisons) are presented only for the period 2010 to 2015, whilst measures derived from mean averages of property prices (e.g. the Ratio analysis) are shown for the full period 2002-2015.

Throughout this report only the major costs of purchasing residential property are considered; specifically, the purchase price of the property and the mortgage payments (principal and interest). Other acquisition costs (such as stamp duty, estate agents' and legal fees) and other housing costs (such as rates and repairs and maintenance costs) are not considered.

#### **Definitions**

#### "Average" property price

(the same statistical definitions apply to income)

- the **mean** average of a distribution of property prices (purchase or rental) is calculated by adding together the prices of all the properties and then dividing by the number of properties
- the **median** average is the 'middle' price if all the properties were listed in order of their price, from lowest to highest; half of all properties lie below the median and half lie above
- a small number of very highly priced properties will tend to increase the mean average but not the median average
- the median average may, therefore, be considered to be a more representative measure of the 'central' property price

**Lower quartile**: the lower quartile price is determined by putting all properties in order of their price, from lowest to highest. The lowest 25% of property prices are said to constitute the lower quartile, i.e. they fall below the lower quartile price.

**Starter home**: a flat or house with 1 or 2 bedrooms.

**Gross household income**: all gross earned and unearned income, pensions and gifts (e.g. inheritance), plus benefits.

**Net household income**: gross household income, plus benefits in kind, minus income tax, social security contributions and pension contributions; before the deduction of housing costs.

**Qualifying income**: the income required to service a mortgage affordably on the purchase of a dwelling at a specified purchase price or the mean monthly rental payments in the private sector (based on the assumptions of affordability considered in this report).

Working household: a household with at least one adult in employment.

**Young working household**: a household with at least one adult aged between 20 to 39 years in employment.

**Key workers**: individuals employed in the public sector; in this report, key workers are represented by teachers, police officers and nurses who have worked in these roles for three to four years.

## The Jersey Housing Affordability Index

The Jersey Housing Affordability Index (JHAI) is an indicator of whether a working household with an average (mean) income is able to purchase a median-priced property affordably.

The index quantifies the impact that factors such as mortgage interest rates and deposits have on housing affordability. In general terms, affordability is considered to decline (worsen) when property prices grow faster than borrowing capacity.

The JHAI calculates the ratio of mean net household income to "qualifying income", defined as the income required to service a mortgage affordably on the purchase price of a median-priced dwelling. The index is based to 100 such that when equal to 100 the index implies that a household at the mean level of income may be considered to be able to service a mortgage on a median-priced dwelling "affordably".

A complementary index based on gross household income is also presented and enables a comparison of housing affordability before and after the application of income tax and social security contributions.

A further analysis is presented which is based on a measure of individual earnings: the mean earnings per full-time equivalent (FTE) employee. This perspective enables the calculation of an "affordability multiple", defined as the number of full-time equivalent earners required to achieve the "qualifying income".

Access analysis estimates the proportion of working households in Jersey who cannot afford to access property at the lower end of the market (using JHAI affordability criteria). The ability of young working households to access lower-priced starter homes is also investigated.

#### **Central assumptions**

The central assumptions through which the JHAI attempts to quantify housing affordability are:

- mortgage payments (principal and interest) should consume no more than:
   40 percent of net income; or 30 percent of gross income
- the purchaser has a cash deposit of 10 percent of the purchase price
- the purchaser is financing a 90 percent mortgage at a variable interest rate for a term of 25 years, with both principal and interest payments paid each month throughout the term

The interest rates used in this report are derived from data published by the Bank of England: the sterling standard variable mortgage rates quoted to households by UK monetary financial institutions (excluding the central bank).

#### **Results**

Table 1 shows the information from which the housing affordability indices are derived:

- mean gross and net income for households with at least one adult member earning income from employment
- median property price (all property types and sizes)
- mean mortgage interest rate
- qualifying gross and net household income

Table 1 - Household income, property prices and interest rates, 2010-2015, nominal values

Year	Mean household income (working households)		Median dwelling price	Mean mortgage interest rate	Qualifying income	
	Gross	Net	aweiiiig price	%	Gross	Net
2010	£64,000	£51,000	£405,000	3.96	£76,000	£57,000
2011	<sup>(r)</sup> £64,000	<sup>(r)</sup> £51,000	£380,000	4.08	£72,000	£54,000
2012	<sup>(r)</sup> £65,000	<sup>(r)</sup> £51,000	£385,000	4.22	£74,000	£56,000
2013	<sup>(r)</sup> £65,000	<sup>(r)</sup> £51,000	£400,000	4.37	£78,000	£59,000
2014	£66,000	£52,000	£405,000	4.45	£80,000	£60,000
2015	£66,000	£52,000	£415,000	4.51	£82,000	£62,000

<sup>(</sup>r) = revised

As Table 1 shows, the qualifying income (gross and net) required to service a mortgage affordably on a newly purchased property at the median dwelling price in 2015 was greater than it had been in any year since 2010; this can be largely attributed to an increase in the median dwelling price and a marginal rise in the average mortgage interest rate observed in the latest year.

It is also evident from Table 1 that in each of the last six years the qualifying income required to service a mortgage affordably on a median-priced property was greater than the average working household income.

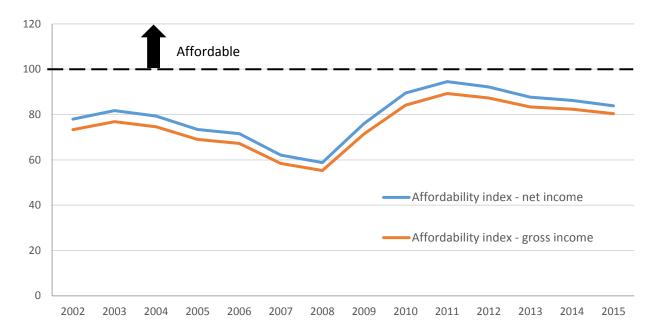
Table 2 and Figure 1 present two affordability indices, based on mean gross and net household income, respectively.

Table 2 - Affordability indices based on household income of working households

	Affordability index			
Year	Gross income	Net income (the JHAI)		
2010	84	89		
2011	<sup>(r)</sup> 89	<sup>(r)</sup> 95		
2012	<sup>(r)</sup> 87	<sup>(r)</sup> 92		
2013	<sup>(r)</sup> 83	<sup>(r)</sup> 88		
2014	82	86		
2015	80	84		

<sup>(</sup>r) = revised

Figure 1- Affordability indices based on household income of working households



As Figure 1 shows, housing affordability worsened marginally in 2015 compared with 2014.

Housing affordability had seen some improvement in the period 2008 to 2011, driven largely by reductions in mortgage interest rates, however more recently, increases in the median dwelling price above that of the increase in earnings have resulted in worsening affordability.

#### Effect of property type and size

Separate indices are also calculated for each type and size of dwelling (1- and 2-bedroom flats and 2-, 3- and 4-bedroom houses), in order to enable an understanding of the category of property which a household might be able to purchase affordably. These indices, shown in Figures 1 and 2, are based on mean net household income and the respective median prices for each category of property.

Figure 2, showing the affordability indices for flats, indicates that a working household with mean net income was able to service a mortgage affordably on a median-priced 1-bedroom flat throughout the period from 2002 to 2015 (the index is above 100 for all of this period).

220
200
180
160
140
120
100
80
60
—1-bedroom flats
—2-bedroom flats

Figure 2 - Affordability indices based on net household income – flats

#### **Flats**

The affordability of 1-bedroom flats improved significantly throughout the period 2008 to 2011 due to falls in median price and lower mortgage interest rates. In 2012 and 2013 the affordability of 1-bedroom flats declined, due to annual increases in the median price of this property type, coupled with increases in the mean mortgage interest rate. In the most recent two-year period, affordability for this type of property has worsened marginally.

The index for 2-bedroom flats fell below 100 in both 2006 and 2008, indicating that a working household with mean net income was not able to service a mortgage affordably on a median-priced 2-bedroom flat in those years. In 2009 the affordability index for 2-bedroom flats rose above 100 and has since remained above that level. In the most recent three-year period, affordability for this type of property has worsened marginally.

#### Houses

The affordability indices shown for houses in Figure 3 indicate that during the period from 2002 to 2015 a working household with mean net income was not able to service a mortgage affordably on the purchase price of a median-priced house of any size at any time.

The affordability of all houses increased during the period 2008 to 2013, while more recently increases in the median dwelling price of those properties have resulted in worsening affordability.

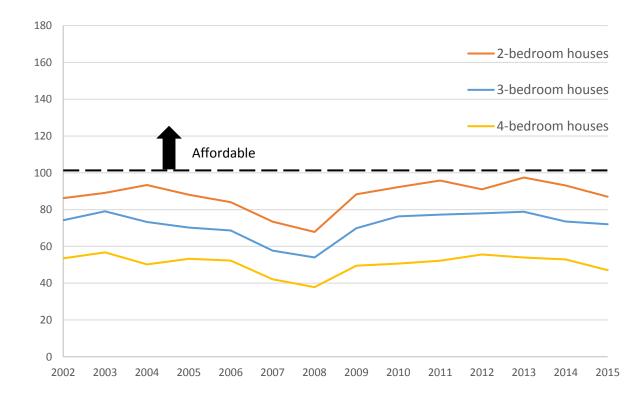


Figure 3 - Affordability indices based on net household income - houses

Table 3 shows the median prices of 2-, 3- and 4-bedroom houses in 2015 and the qualifying net income that would be required in order to service a mortgage "affordably" on the purchase price of each dwelling type. The 'deposit gap' represents the difference by which the median dwelling price exceeds the affordability threshold, expressed as a factor of mean net household income (£52,000).

Table 3: Median house prices, qualifying household income and deposit gap, 2015

	Median House Price	Qualifying Net Income	Additional deposit required	<b>Deposit Gap*</b> as a factor of mean net income
2 bed house	£400,000	£59,000	£50,000	1.0
3-bed house	£483,000	£72,000	£133,000	2.6
4-bed house	£740,000	£110,000	£390,000	7.5

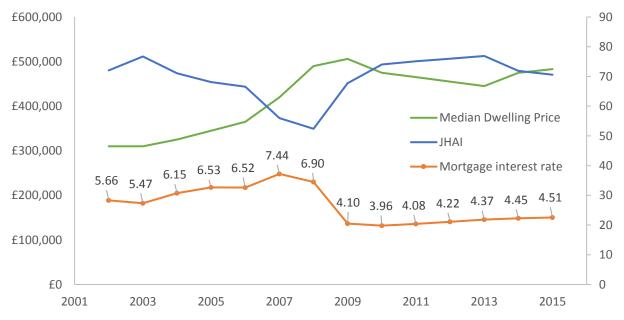
<sup>\*</sup>Gap between the median house price and the affordability threshold, as a factor of mean net household income.

For the purchase of a median-priced 3- or 4-bedroom house, the total deposit therefore required was £181,000 and £464,000, respectively, representing a deposit gap of around two and a half for a 3-bedroom house and of more than seven for a 4-bedroom house.

#### Effect of interest rates and property prices

Figure 4 shows the effect on the affordability of 3-bedroom houses of changes in mortgage interest rates and median property prices. The increase (improvement) in the affordability index from 2008 to 2013 was driven by lower interest rates, notably between 2008 and 2009, coupled with marginal annual decreases in the median dwelling price of 3-bedroom houses observed year on year throughout the period.

Figure 4 – The JHAI, median dwelling price (3-bedroom houses) and mean mortgage interest rates, 2002-2015



#### **Individual earnings**

Using the criteria assumed in the JHAI, the ability of individuals with average earnings to purchase a median-priced property affordably in Jersey is assessed. Based on the mean earnings per full-time equivalent (FTE) employee, an "affordability multiple", defined as the number of full-time equivalent earners required to achieve the "qualifying income", is calculated.

<sup>&</sup>lt;sup>1</sup> It is assumed as part of the JHAI criteria that the household has a 10% cash deposit available

Table 4 shows that from the perspective of individual earnings (the mean gross earnings of a FTE employee) housing affordability in Jersey remained essentially stable throughout the period 2013 to 2015; the qualifying income for the purchase of a median-priced dwelling has been more than twice the mean earnings of a FTE employee in Jersey in each of the last six years.

Table 4 - Affordability index based on individual earnings (per FTE employee), nominal values

Year	Median dwelling price	Mean mortgage interest rate %	Annual mortgage payments	Mean gross annual earnings	Qualifying gross earnings	Affordability multiple
2010	£405,000	3.96	£23,000	£33,000	£76,000	2.3
2011	£380,000	4.08	£22,000	£34,000	£72,000	2.1
2012	£385,000	4.22	£22,000	£34,000	£74,000	2.2
2013	£400,000	4.37	£24,000	£34,000	£78,000	2.3
2014	£405,000	4.45	£24,000	£35,000	£80,000	2.3
2015	£415,000	4.51	£25,000	£35,000	£82,000	2.3

In 2015 the level of income required to service mortgage payments on a median-priced dwelling affordably was 2.3 times the mean individual earnings of a FTE employee. For context, the 2011 Jersey Census showed that there were 1.7 workers (full-time or part-time) per household in households in which there was at least one adult member earning income from employment. This mean number of workers corresponded to 1.6 FTE employees per working household.

#### **Access analysis**

Using the JHAI methodology it is possible to examine the ability of households in Jersey to access property at the lower priced end of the property market. It is also possible to estimate the capacity of young working households in Jersey to access starter homes, in an attempt to evaluate the situation commonly faced by first-time buyer (FTB) households on the Island.

Table 5 shows the percentage of all working households in Jersey who could not afford to service a mortgage affordably on a property purchased at the lower quartile price in Jersey (all dwelling types and sizes) throughout the period 2014 to 2015.

Table 5 – Affordability of lower quartile properties (all types); all working households, nominal values

Year	Lower quartile price	Household income required to service mortgage affordably	% of all working households <u>unable</u> to purchase affordably	
2014	£285,000	£56,000	52	
2015	£283,000	£56,000	50	

In 2015, half (50%) of all working households in Jersey could not afford to service a mortgage at the lower quartile price of all property types. In 2011 and 2012 this proportion was closer to two-fifths (43%). The slight decrease recorded in the latest year is the result of a slightly reduced lower quartile dwelling price and an increase in average earnings.

To reflect the situation commonly faced by first-time buyers, the proportion of young working households (with one or more workers aged between 20 and 39 years) who could not afford to purchase a starter home (1- or 2-bedroom flat or house) has also been estimated.

As Table 6 shows, two-fifths of young working households, could not afford to purchase a starter home at the lower quartile property price in 2015.

Table 6 – Affordability of lower quartile starter homes (1- or 2-bedroom flat or house); young working (FTB) households, nominal values

Year	Lower quartile price (starter homes)	Household income required to service mortgage affordably	% of FTB households unable to purchase
2014	£226,000	£45,000	42
2015	£224,000	£44,000	40

It should be noted that greater proportions of young working FTB households would have been able to afford a property priced <u>below</u> the lower quartile price. Similarly, greater proportions would have been able to purchase such properties affordably if they had larger deposits available.

For context, the number and type of starter homes which sold in 2015 at or below the lower quartile price of £224,000 comprised mainly 1-bedroom flats (150 at or below this value), whilst only 10 2-bedroom flats and 2-bedroom houses were recorded as having been sold at or below the lower quartile price in 2015.

## Sensitivity to central assumptions

The effects of changes in property prices, mortgage interest rates and the central assumptions underpinning the JHAI (e.g. the percentage of gross or net income consumed by mortgage payments) can be examined. In this section, the effect of such variations on the affordability of 2-bedroom flats and of 3-bedroom houses is considered.

#### **Two-bedroom flats**

In 2015:

- a median-priced 2-bedroom flat (£315,000) was affordable to a household with annual gross income of at least £62,000 and net income of at least £47,000
- a household with mean income was able to service a mortgage on a median-priced 2-bedroom flat, with mortgage payments accounting for 28% of their gross income or 36% of their net income
- if mortgage interest rates and household incomes remained constant at 2015 levels, then the median price of a 2-bedroom flat could increase by around £35,000 before such a property would be considered unaffordable to a household with mean income
- the gross earnings of 1.8 FTE employees were required in order to service a mortgage affordably on the purchase of a median-priced 2-bedroom flat

#### Three-bedroom houses

In 2015:

- a median-priced 3-bedroom house (£483,000) was affordable to a household with annual gross income of at least £96,000 and net income of at least £72,000
- the mortgage payments on a median-priced 3-bedroom house accounted for over two-fifths (43%) of the mean gross income and over half (55%) of the mean net income of working households
- if mortgage interest rates and household incomes remained at 2015 levels, the median price of a 3-bedroom house would need to fall by over a quarter (by 28%, corresponding to over £130,000) in order to make the purchase of such a property affordable to a household with mean income
- the gross earnings of 2.7 FTE employees were required in order to service a mortgage affordably on the purchase of a median-priced 3-bedroom house

## Section 2 - Rental stress (30/40 method)

#### Introduction

The 30/40 method refers to the point at which a household in the lowest 40 percent of the entire equivalised<sup>2</sup> income distribution spends more than 30 percent of its gross income (including benefits) on housing costs. The methodology was introduced in the early 1990s by the Australian Federal Government to provide a measure of the proportion of households that were over-burdened by their housing costs.

Prior to the adoption of the 30/40 method, a widely used measure of rental 'stress' assumed that any household, regardless of their income level, which spent more than 30 percent of their gross income on mortgage or rental costs was in housing stress. However, this approach has the potential to overestimate housing stress, since some high earning households are able to spend more than 30 percent of their income on housing costs and still have sufficient funds remaining to pay for non-housing expenses.

#### **Results**

Table 7 shows the percentage of households in Jersey which are in the lower 40% of the household equivalised income distribution <u>and</u> are paying more than 30% of their gross income on rental payments; such households would be classified as being in rental stress according to the 30/40 criterion.

Table 7 - Percentage of lower-income households living in rental stress (30/40 method); by tenure, 2015

Social rental		Private rental	Non-qualified	
2015	45	73	53	

The greatest proportions of households living in housing stress were in the private rental sector. Almost three-quarters (73%) of the households living in the private rental sector, whose income was in the lowest two quintiles of the distribution, were paying more than 30% of their gross income on housing costs.

#### Mortgage stress

mor tgugo ou cos

The above methodology to also can be used to estimate the number of households in mortgage stress. That is, those households in the lowest 40 percent of the equivalised income distribution that spend more than 30 percent of their gross income (including benefits) servicing a mortgage.

It is important to note that only a small number of Jersey households in the lower 40% of the income distribution are owner occupiers servicing a mortgage (less than 10% of such households). More than half of these households would be classified as being in mortgage stress.

<sup>&</sup>lt;sup>2</sup> Equivalisation is the process used to standardise household income levels, accounting for differences in household size and composition; the modified OECD equivalence scale is applied.

## **Section 3 - Ratio analysis**

#### Introduction

The ratio of property price to income is a widely used measure of housing affordability and is particularly useful for examining trends in affordability over time.

Several versions of this indicator are used internationally; however, many of these methodologies compare dwelling prices with the earnings of individuals, an approach which can amplify affordability difficulties. Therefore, the ratio of mean and lower quartile property price to mean and lower quartile household (gross) income is presented for Jersey.

### Ratio of mean property price to mean gross household income

Figures 5 and 6 show the ratio of mean property price to mean gross household income (all working households) for flats and houses in Jersey during the period from 2002 to 2015.

Figure 5 - Ratio of mean property price to mean gross household income: flats

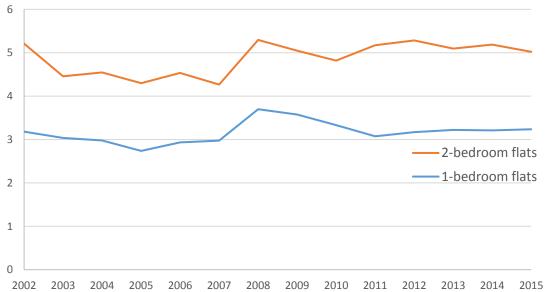
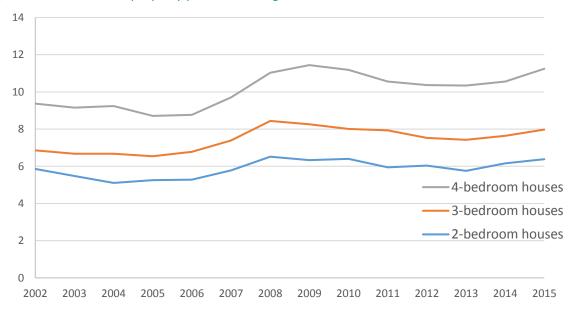


Figure 6 - Ratio of mean property price to mean gross household income: houses



The ratio of the mean property prices to mean gross household income in Jersey was:

- around 3 for 1-bedroom flats, and approached 4 in 2008-2009
- around 5 for 2-bedroom flats since 2008
- around 6 for 2-bedroom houses since 2008
- around 8 for 3-bedroom houses since 2008
- around 11 for 4-bedroom houses from 2008 to 2010; and around 10 subsequently.

In the latest year (2015) the ratio of mean dwelling price to mean household income in Jersey has remained essentially unchanged compared to 2014 for 1 and 2- bedroom flats. In contrast, the ratio of property price to income for houses increased in 2015, due to increases in the mean property prices of these dwelling types.

#### Lower quartile ratio

The ratio of lower quartile property price to lower quartile income is often used to assess whether households with lower levels of income can afford to purchase lower-priced properties<sup>3</sup>.

Table 8 - Lower quartile ratio, 2010-2015, nominal values

Year	Lower quartile property price	Lower quartile gross household income	Ratio
2010	£278,000	£34,000	8
2011	£252,000	<sup>(r)</sup> £34,000	<sup>(r)</sup> 7
2012	£256,000	<sup>(r)</sup> £33,000	<sup>(r)</sup> 8
2013	£275,000	<sup>(r)</sup> £33,000	(r) 8
2014	£285,000	£33,000	9
2015	£283,000	£32,000	9

<sup>(</sup>r) = revised

In 2015, the ratio of lower quartile household income and lower quartile property price in Jersey was essentially unchanged and remained at 9. The increase in this ratio over the last five years is primarily a result of the decrease in gross household income recorded for the lower quartile income group during this time.

<sup>&</sup>lt;sup>3</sup> The ratio of 'lower quartile' property price to income is calculated by ranking all property prices and gross household incomes in ascending order; in each distribution the lower quartile are those values lying below the 25<sup>th</sup> percentile value. The lower quartile ratio is calculated as the ratio of the 25<sup>th</sup> percentile property price to the 25<sup>th</sup> percentile gross household income.

## **Section 4 - Key Worker Analysis**

This section focuses on the ability of three different types of individual "key workers" (teacher, police officer and nurse) to be able to afford to purchase a property in Jersey at the lower quartile price (all property types).

This analysis is based on the methodology of the JHAI, whereby a purchaser is assumed to have a 10% deposit and be servicing a variable rate mortgage over a 25-year term. It is assumed that for a dwelling to be affordable, mortgage payments (principal and interest) should consume no more than 30% of gross earnings.

For each key worker, earnings are those potentially achieved after three to four years of service<sup>4</sup>.

#### All properties at lower quartile purchase price

Table 9 shows key worker incomes as a percentage of the income required to service a mortgage affordably at the lower quartile price of all properties in Jersey, and also that for all individual employees in the Island.

Table 9 – Individual and key worker earnings as percentage of the income required to service a mortgage affordably at the lower quartile price of all properties, 2015

Year	Lower	Qualifying annual	Earnings as % of qualifying		ualifying incom	e
	quartile price	Income	Teacher	Police officer	Nurse	All employees (FTE)
2015	£283,000	£56,000	72	85	71	63

Of the three types of key worker considered, affordability issues by this measure were most severe for teachers and nurses. The earnings of a nurse or a teacher amounted to less than three-quarters of the income required to service a mortgage affordably on the purchase of a dwelling at the lower quartile price.

In contrast, the earnings of a police officer reflected more than four-fifths of the income needed to service a mortgage affordably on the purchase price of a lower-quartile dwelling.

In 2015, the average (mean) earnings of all employees in Jersey were almost two-thirds (63%) of that required to service a mortgage affordably on a property at the lower quartile price.

Teacher: General Teachers & Highlands Lecturers pay scale, grade 5

Police officer: Police Service pay scale, Constable after 3 years, grade PCLO 04 0

Nurse: Nurses and Midwives pay scale, grade 4/3

<sup>&</sup>lt;sup>4</sup> The specific levels of pay used are:

#### **Notes**

#### 1. Property purchase prices

Mean average property prices and measures of distributions, such as median and lower quartile prices, are derived from data collected for the compilation of Jersey's quarterly House Price Index. The data on transaction prices comes principally from the Jersey Property Bulletin (for freehold and flying freehold properties, recorded by the Royal Court) and the States of Jersey Income Tax Department (for share transfer transactions).

Property prices (means and measures of distributions) have been calculated using the transaction prices of all 1- and 2-bedroom flats and 2-, 3- and 4-bedroom houses sold in Jersey in each year. Certain property types (e.g. bedsits, 1- and 5- or more bedroom houses and commercial properties) are excluded from the analysis.

To determine mean property prices, distributions are winsorised in order to prevent exceptionally high or low values from overly influencing the estimate of the mean. Mean prices of each dwelling type in each calendar year are derived from quarterly data weighted by turnover; furthermore, the overall mean price for each calendar year is "mix-adjusted", i.e. it is independent of the particular "mix" of properties sold in a given year.

Median and lower quartile prices are measures derived directly from distributions and do not account for differences in the mix of properties sold.

#### 2. Rental costs (30/40 method)

Rental costs used in the 30/40 method of identifying rental stress, are derived from the Household Spending and Income Survey 2014/2015.

#### 3. Housing loan interest rates

Housing loan interest rates are derived from figures published by the Bank of England and represent a yearly mean average of interest rates offered by UK monetary financial institutions. The rates used are those for sterling variable rate mortgages quoted to households.

It should be acknowledged that a different range of mortgage products from that in the UK may have been available to Jersey residents throughout the period covered by this report.

#### 4. Income

Measures of net and gross household income have been derived from data collected from both the 2009/2010 and 2014/2015 Jersey Income Distribution Survey. Household-level data are weighted by tenure.

A process of winsorisation was applied for the calculation of mean household incomes, to prevent exceptionally high or low values from overly influencing the estimate of the mean.

Since the Jersey Income Distribution Survey is not conducted annually, measures of household income for the years falling outside these two surveys have been calculated by deflating/inflating values derived from the nearest relevant survey according to the annual percentage changes determined by the Jersey Index of Average Earnings.

Data on individual employment income is sourced from the annual survey for compiling the Jersey Index of Average Earnings; this survey enables estimation of the mean full-time weekly earnings for both private and public sector workers in Jersey (gross earnings, including overtime, but excluding bonuses, employers' insurance contributions, holiday pay and benefits in kind).

For this survey, firms report the total gross wages and salaries paid to employees before any deductions (e.g. for income tax, social security or pensions) as well as the number of people employed (part-time employees are converted to full-time equivalents, FTEs). Mean earnings are compiled for each sector and the sectoral means are weighted according to the sectoral share of total employment in order to provide an estimate of the overall mean weekly earnings per FTE employee in Jersey.

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