Evaluation of Homes England's delivery of the Shared Ownership and Affordable Homes Programme

Annexes

SQW

Contents

Annex A: Research Questions

Thematic Question 1: What housing has been delivered as a result of SOAHP (as delivered by Homes England)?	
1	What direct effect has Homes England's delivery of SOAHP had on housing supply, including in relation to number, tenure and location (including "high demand" areas), and how does this compare to original aims/KPIs?
2	Has Homes England's delivery of SOAHP had any wider, indirect effect, on housing supply, and if so how?
3	To what extent has Homes England's delivery of SOAHP been focussed on high impact i.e. high additionality, e.g. in terms of geography or types of scheme?
Thematic Question 2: What other impacts has SOAHP had?	
4	How has SOAHP helped to deliver against local housing needs, in relation to the quantum of homes delivered, the different tenures provided and type of location (e.g. rural vs. urban areas) i.e. has the programme delivered the "right" homes in the "right" places?
5	What impact has Homes England's delivery of SOAHP had on housing affordability for tenants in local communities, looking at different rental tenures?
6	Has Homes England's delivery of SOAHP helped to facilitate increased home ownership in local communities i.e. through shared ownership (including for Older Persons and people with Long Term Disabilities) and Rent to Buy?
7	What impact has SOAHP (as delivered by Homes England) had on employment, in particular direct employment of young people and apprenticeships?
8	What wider impacts has SOAHP (as delivered by Homes England) had on communities and their residents (e.g. contribution to the overall regeneration of an area / more rapid build out of substantial urban extensions / bringing forward land for development that would not have been brought forward otherwise)?
9	What impact has the programme had on the organisations funded by Homes England through SOAHP, including in relation to their strategy, ambition and their financial model? How does this vary by delivery model (i.e. Continuous Market Engagement vs. Strategic Partnerships)?
10	Has SOAHP (as delivered by Homes England) driven greater involvement in delivery by the commercial housing sector, in particular in relation to shared ownership, and if so how?
11	Has SOAHP (as delivered by Homes England) driven greater use of innovative methods of construction, including offsite construction, and if so how?
12	What impact has delivering the programme had on Homes England itself e.g. its reputation, credibility and capability in the market?
Thematic Question 3: What lessons can be learned from Homes England's delivery of SOAHP?	
13	How well has SOAHP been delivered by Homes England over time i.e. what has worked well and less well, and what lessons have been learned from delivery, including how the programme has evolved over time, and how well targeted delivery has been?
14	How do the impacts from the different delivery models vary i.e. Strategic Partnerships vs. Continuous Market Engagement?

15 | What external factors have influenced SOAHP (as delivered by Homes England) and its impact, e.g. economic factors and non-SOAHP policy decisions?

Annex B: Programme monitoring data

Allocations

CME allocations

Regional distribution of homes and funding approvals at March 2021

	Homes approved (grant-funded)	Funding approved (£k)	% homes approved (grant-funded)	Funding approved
East	5,671	232,563	10%	10%
South East	7,010	274,865	12%	12%
South West	5,613	218,630	9%	10%
East Midlands	4,939	180,800	8%	8%
West Midlands	7,862	295,617	13%	13%
North East	6,014	218,349	10%	10%
North West	16,490	604,956	28%	27%
Yorkshire and The Humber	6,021	227,185	10%	10%

Source: SQW analysis of Homes England data

Coverage of providers by number of homes approved

Total grant funded homes approved	Proportion of providers (n=256)	Proportion of homes grant-funded (n=59,664)
1 to 50 homes	39%	3%
51 to 99 homes	17%	5%
101 to 499 homes	33%	35%
501 to 999 homes	7%	19%
Over 1,000 homes	5%	37%

Source: SQW analysis of Homes England data

Proportion of grant-funded homes approved by tenure accounted for provider scale (total grant funded homes approved)

Total grant funded homes approved	Affordable Home Ownership (n=25,560)	Affordable Rent (n=30,477)	Social Rent (n=3,627)
1 to 50 homes	2%	4%	10%
51 to 99 homes	3%	6%	11%
101 to 499 homes	33%	37%	40%
501 to 999 homes	19%	20%	19%
Over 1000 homes	43%	33%	21%

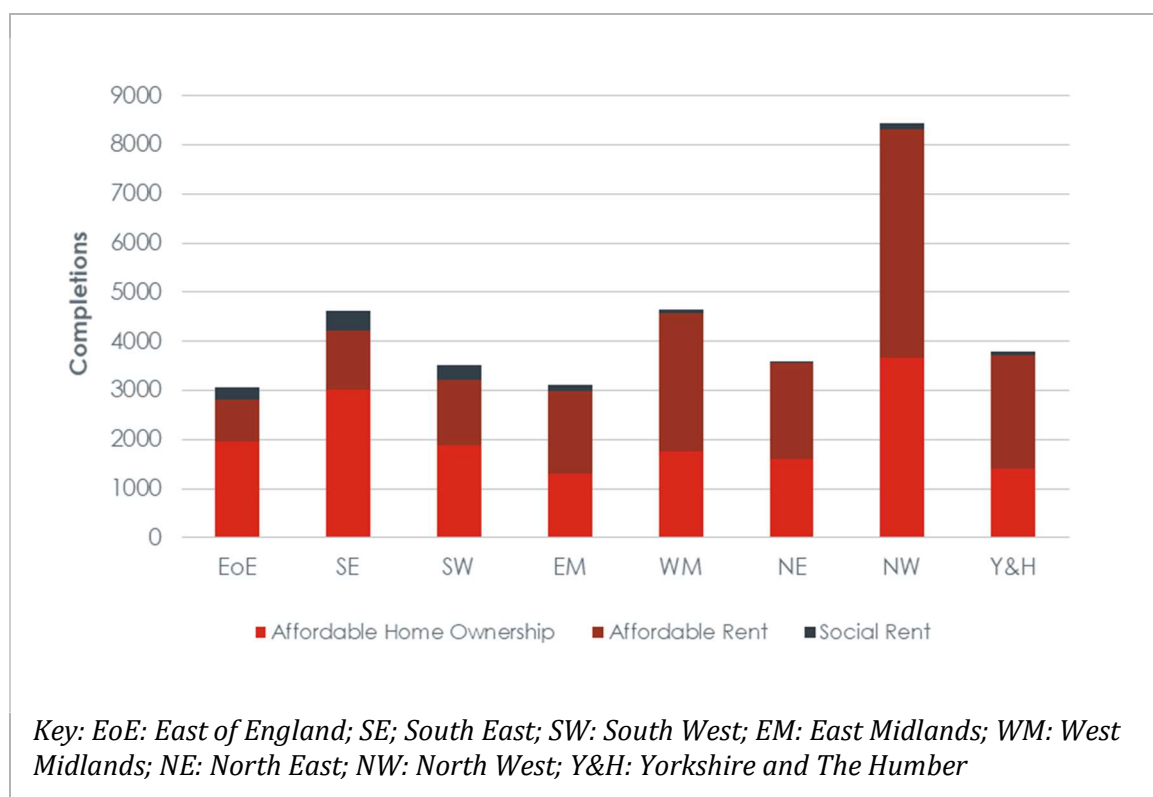*Source: SQW analysis of Homes England data*

SP allocations

Regional distribution of SP homes and funding approvals at March 2021

	Homes approved (grant-funded)	Funding approved (£k)	% homes approved (grant-funded)	Funding approved
East	3,764	166,575	9%	9%
South East	9,691	546,353	23%	28%
South West	5,699	278,668	13%	14%
East Midlands	4,403	182,058	10%	9%
West Midlands	6,123	237,039	14%	12%
North East	1,783	67,736	4%	4%
North West	7,274	280,443	17%	15%
Yorkshire and The Humber	3,938	166,365	9%	9%

Source: SQW analysis of Homes England data

Completions

Total completions by region at March 2021 (CME and SP)

Key: EoE: East of England; SE; South East; SW: South West; EM: East Midlands; WM: West Midlands; NE: North East; NW: North West; Y&H: Yorkshire and The Humber

Source: SQW analysis of Homes England data

CME completions

Regional distribution of completions delivered via CME grant funding

	Affordable Home Ownership (n=14,918)	Affordable Rent (n=15,777)	Social Rent (n=908)	Total (n=31,603)
East	12%	5%	24%	9%
South East	15%	7%	21%	11%
South West	11%	7%	16%	9%
East Midlands	7%	10%	10%	9%
West Midlands	11%	17%	8%	14%
North East	10%	12%	2%	11%
North West	24%	28%	13%	26%
Yorkshire and The Humber	9%	14%	6%	11%

Source: SQW analysis of Homes England data

Timing of completions delivered via CME grant funding

Source: SQW analysis of Homes England data
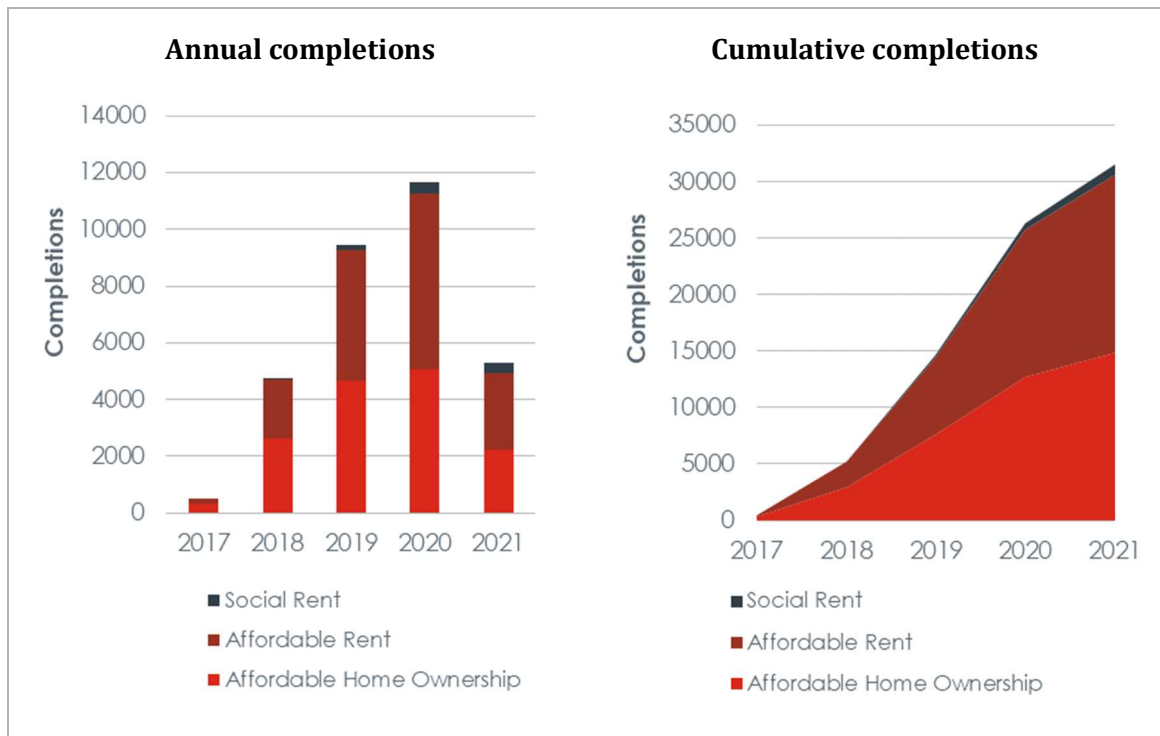
Employment opportunities and apprenticeships

Employment/apprenticeships anticipated from supported CME schemes

	Employment: advanced apprenticeship level 3 (n=1,366)	Employment: higher apprenticeship level 4 and above (n=853)	Apprentice-ships safeguarded (n=3,617)	Apprentice-ships created (n=3,104)
East Midlands	11%	9%	13%	21%
East of England	6%	8%	5%	4%
North East	12%	15%	8%	7%
North West	28%	24%	32%	31%
South East	5%	6%	4%	5%
South West	5%	3%	4%	2%
West Midlands	20%	21%	13%	19%
Yorkshire and The Humber	13%	14%	19%	10%

Source: SQW analysis of Homes England data

Annex C: Details of CME survey

Sample and population

C.1 The tables below compare the survey sample to the population of organisations supported by scheme-by-scheme bid/CME, excluding organisations subsequently supported by Strategic Partners (and therefore excluded from the survey population). The data for both the sample and the population also excludes a small number of large providers with multiple entries in the population data (owing to subsidiaries/different parts of the same group) that responded to the survey via a single response (and are counted in the survey sample data once only).

C.2 The data indicate the survey sample was well matched to the population overall in terms of scale of funding and the scale of homes anticipated to be delivered. This reflects that the survey sample included responses from providers responsible for approximately 42% of the total grant-funded homes approved by March 2021 (c.25,400) and approximately 43% of the funding allocation (c.£974m).

Funding approved (£)

	Population (n=260)	Sample (n=123)
Up to 1m (incl zero)	29%	36%
1m-2m	13%	15%
2m-5m	24%	20%
5m-15m	20%	15%
Over 15m	14%	15%
Average funding request (£m)	*6.9*	*6.3*

Homes approved – grant funded

	Population (n=260)	Sample (n=123)
Zero	4%	3%
1 to 20	20%	25%
20-50	20%	24%
50-100	16%	14%
100-500	32%	27%
Over 500	8%	7%
Average homes approved	*183*	*162*

Homes approved – all (including nil-grant)

	Population (n=260)	Sample (n=123)
Up to 20	20%	26%
20-50	17%	18%
50-100	14%	12%
100-500	31%	28%
Over 500	18%	15%
Average homes approved	*322*	*273*

Registered providers characteristics (n=108)

C.3 Data on the spatial coverage of registered providers is set out below, indicating survey respondents covered organisations operating across England; all regions had at least fifteen per cent of respondents operating with the region (the data are not mutually exclusive with respondents asked to identify all regions in which they operate). All regions also had non-registered providers operating within them, from the 17 non-registered providers surveyed.

C.4 The survey respondents varied in terms of size, as measured by (i) the number of homes under ownership, and (ii) the number of new homes delivered annually in the past five years.

Regions in which provide social/affordable homes (multiple responses)

	Number of respondents	Proportion of respondents
East Midlands	17	16%
East of England	19	18%
North East	19	18%
North West	28	26%
South East	23	21%
South West	22	20%
West Midlands	17	16%
Yorkshire and the Humber	19	18%

Homes owned/managed in England (excluding London)

	Number of respondents	Proportion of respondents
Up to 250	18	17%
251 – 1,000	10	9%
1,001 – 2,500	6	6%
2,501 – 10,000	41	38%
Over 10,000	33	31%

New affordable housing completions delivered each year over the last five years in England (excluding London)

	Number of respondents	Proportion of respondents
Up to 10	22	20%
11 – 50	29	27%
51 – 250	31	29%
251 – 500	14	13%
501 – 1,000	7	6%
1,001 – 5,000	4	4%
Don't know	1	1%

Turnover (n=83)

C.5 Most respondents provided data on the turnover of their organisation (42 did not know or did not provide a response to this question), with over half of respondents reporting annual turnover of at least £10m. However, the survey sample also included organisations with modest turnover, with over a fifth (22%) of those that provided a response indicating their turnover was £2m or under.

	Number of respondents	Proportion of respondents
Up to £100,000	5	6%
£100,001 – £500,000	8	10%
£500,001 – £2 million	5	6%
£2,000,001 – £10 million	12	14%
£10,000,0001 – £50 million	27	33%
Over £50 million	26	31%

Respondent characteristics

C.6 Respondents were most commonly Director of Development/equivalent (n=42), or a member of Senior Management Team/equivalent (n=41) at their organisation. Other roles of survey respondents included Chief Executive/equivalent (n=9), member of mid-level Management Team (n=21), and other roles (n=10); two did not provide a response.

C.7 Respondents had generally been involved in the delivery of new social and affordable homes at their organisation throughout or since early in the programme period, with 54 involved since 2015 or earlier, and 39 becoming involved between 2016-18. A smaller number (n=30) had been involved since 2019; two did not provide a response.

Annex D: Descriptive analysis detailed results

Coverage

D.1 This Annex includes detailed results from the descriptive analysis of the delivery against local housing needs, covering Approach A and Approach B.

Approach A

D.2 The pages below present data that compares the spatial distribution of CME grant-funded and nil-grant completions and allocations by March 2021 against each of the relevant Measures of Relative Affordable Housing Need by tenure. For each set of data (related to grant-funded/nil-grant and completions/allocations respectively) the following are set out (where relevant):

- first, a map of the overall distribution per 1,000 households for that relevant category and tenure

- second, a set of maps that present the spatial distribution of relative need for each of the measures (note these do not vary between the grant-funded/nil-grant and completions/allocations respectively, as they reflect secondary conditions related to that tenure, and are presented in each case for context)

- third, and alongside each maps, a 'scatter graph' that shows the relationship between the measure and the number of completion/allocations per 1,000 households for that category.

Coverage of findings

	Affordable Home Ownership	Affordable Rent	Social Rent
1. Grant-funded completions	✓	✓	✓
2. Grant-funded allocations	✓	✓	✓
3. Nil-grant completions	✓	✓	
4. Nil-grant allocations	✓	✓	

Source: SQW

D.3 It is highlighted that the purpose of the analysis is *not* to consider the level of completions/allocations and how this aligns with measures of need in specific Local Authority Districts. Rather, the purpose is to provide insight whether the overall distribution of completions/allocations aligns with relative need (in the maps) and based on this whether there appears to be a relationship between relative need and the scale of completions/allocations (in the 'scatter graphs').
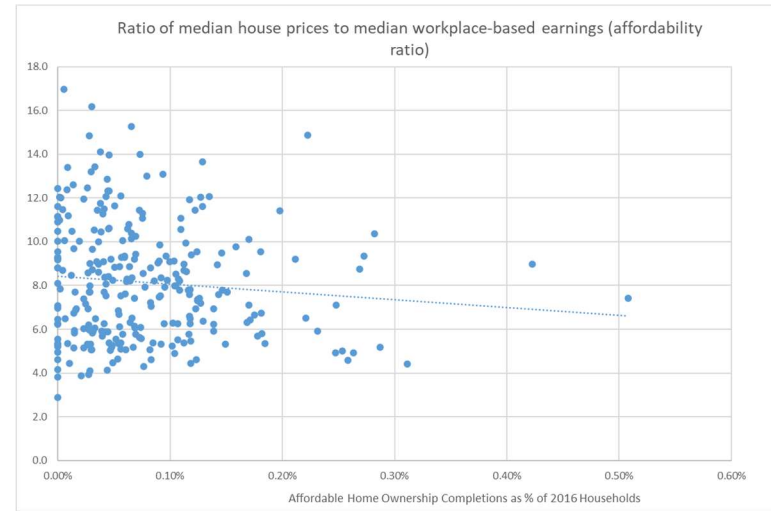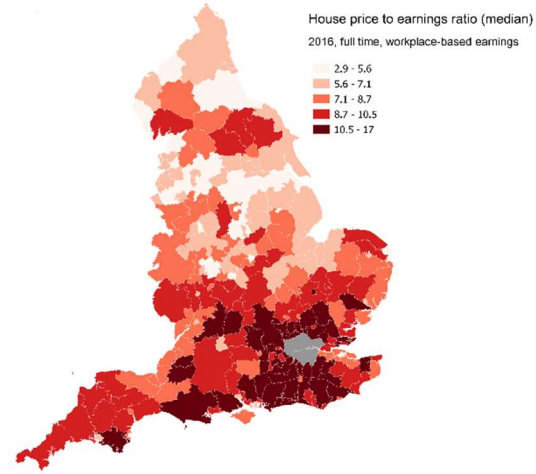
1. CME *grant-funded* <u>COMPLETIONS</u>
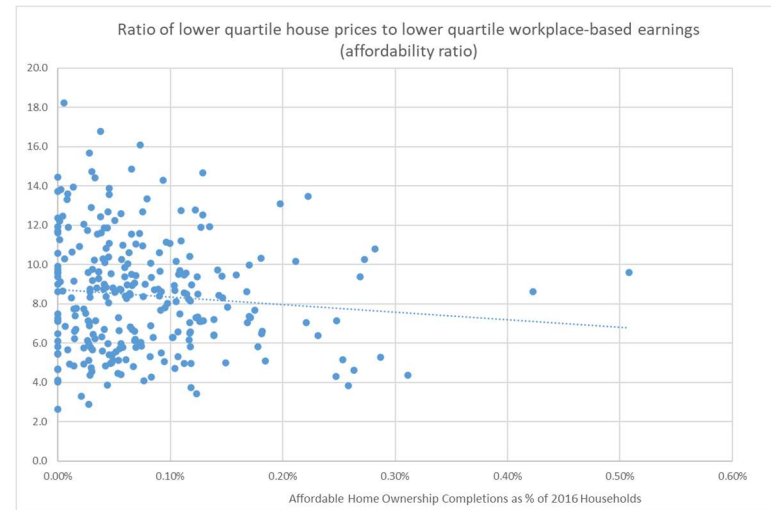
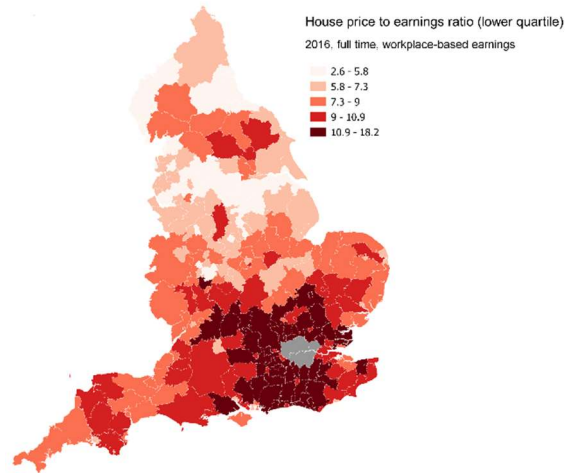| **Affordable Homes Ownership** • **Covers 14,918 completions by March 2021**	
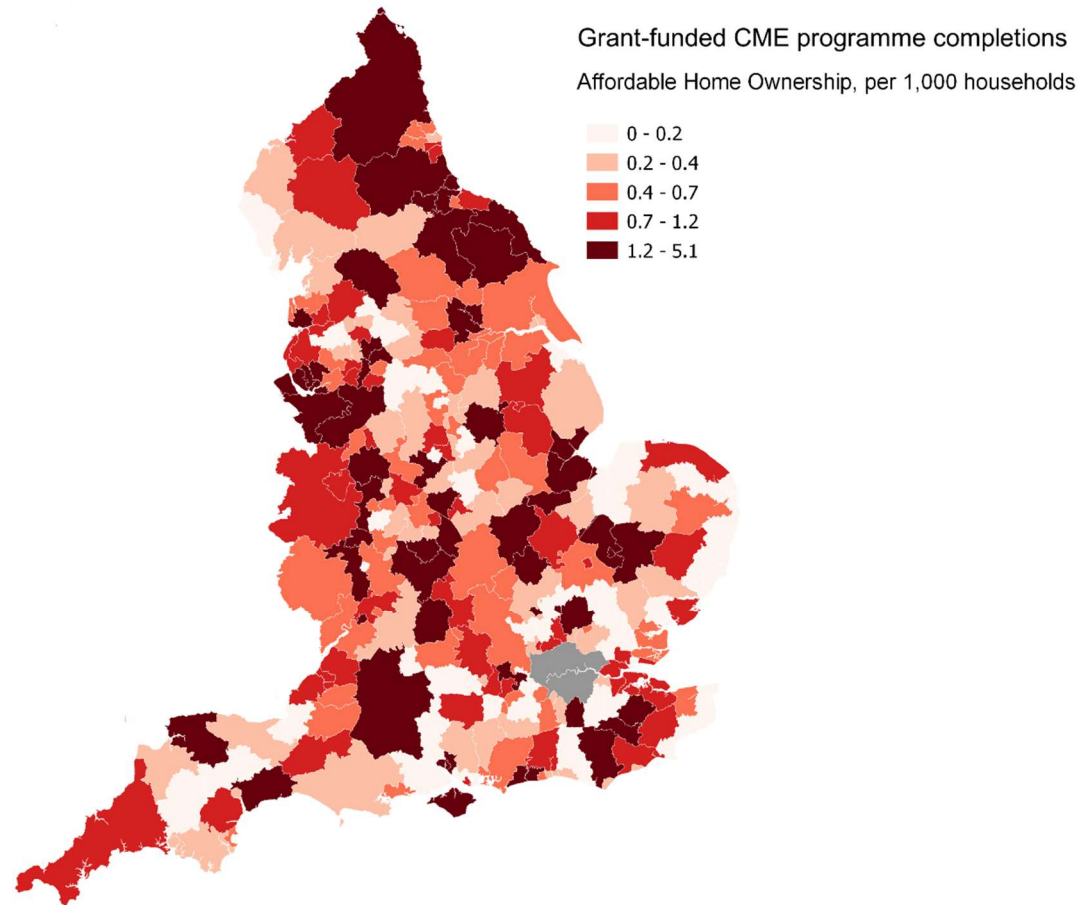
Grant-funded CME programme completions

Affordable Home Ownership, per 1,000 households

- 0 - 0.2
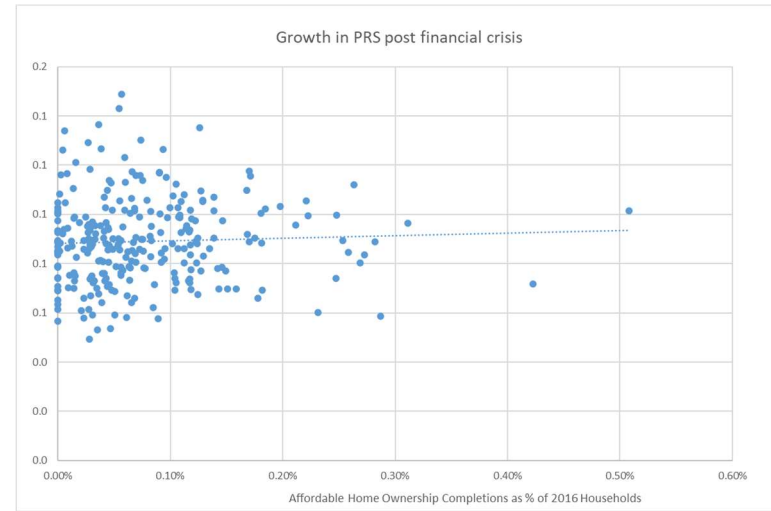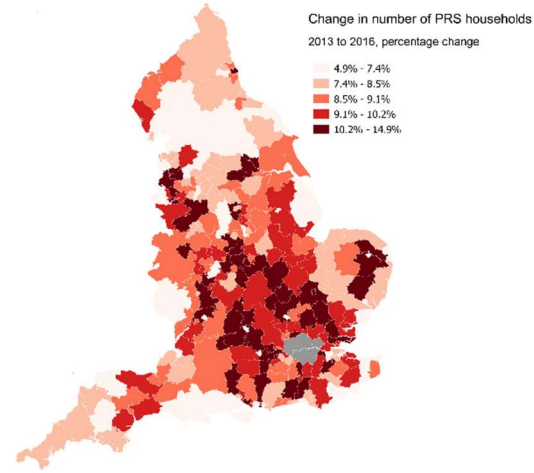- 0.2 - 0.4
- 0.4 - 0.7
- 0.7 - 1.2
- 1.2 - 5.1

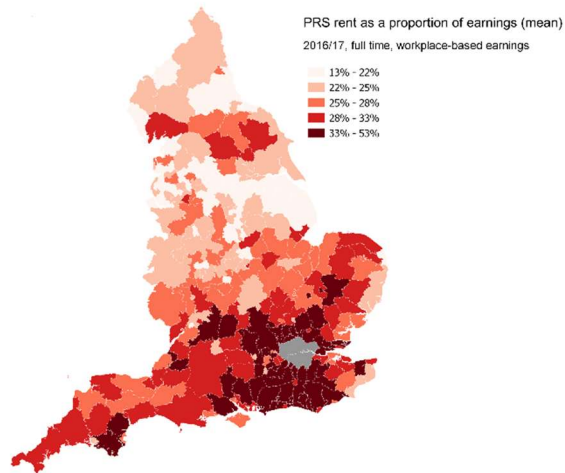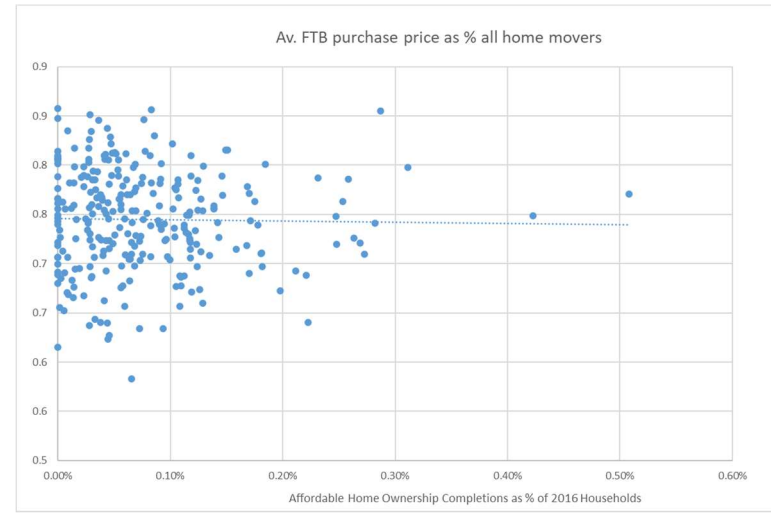|		
AHO1: Median house prices to median workplace-based earnings		
AHO2: Ratio of lower quartile house prices to lower quartile workplace-based earnings		

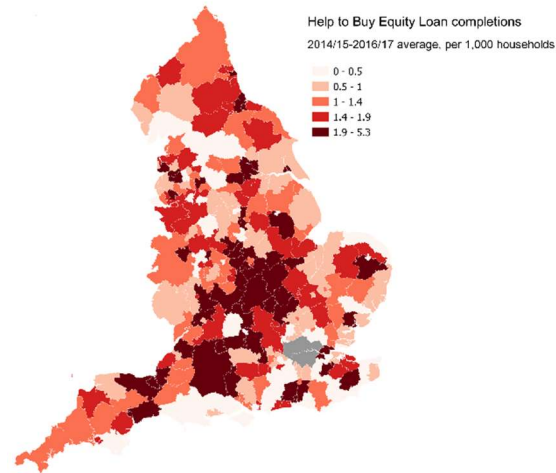|		
AHO3: Growth in Private Rented Sector (PRS) post financial crisis	Change in number of PRS households 2013 to 2016, percentage change 4.9% - 7.4% 7.4% - 8.5% 8.5% - 9.1% 9.1% - 10.2% 10.2% - 14.9%	Growth in PRS post financial crisis
AHO4: Rent to earnings ratio	PRS rent as a proportion of earnings (mean) 2016/17, full time, workplace-based earnings 13% - 22% 22% - 25% 25% - 28% 28% - 33% 33% - 53%	Rent to earnings ratio
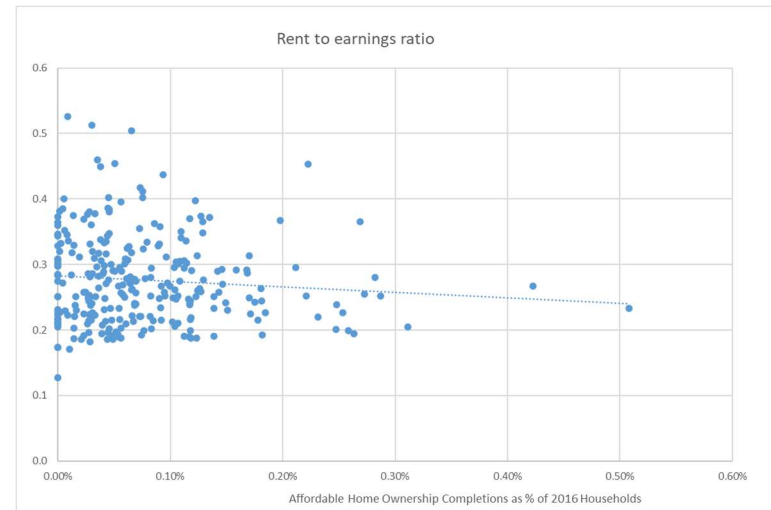
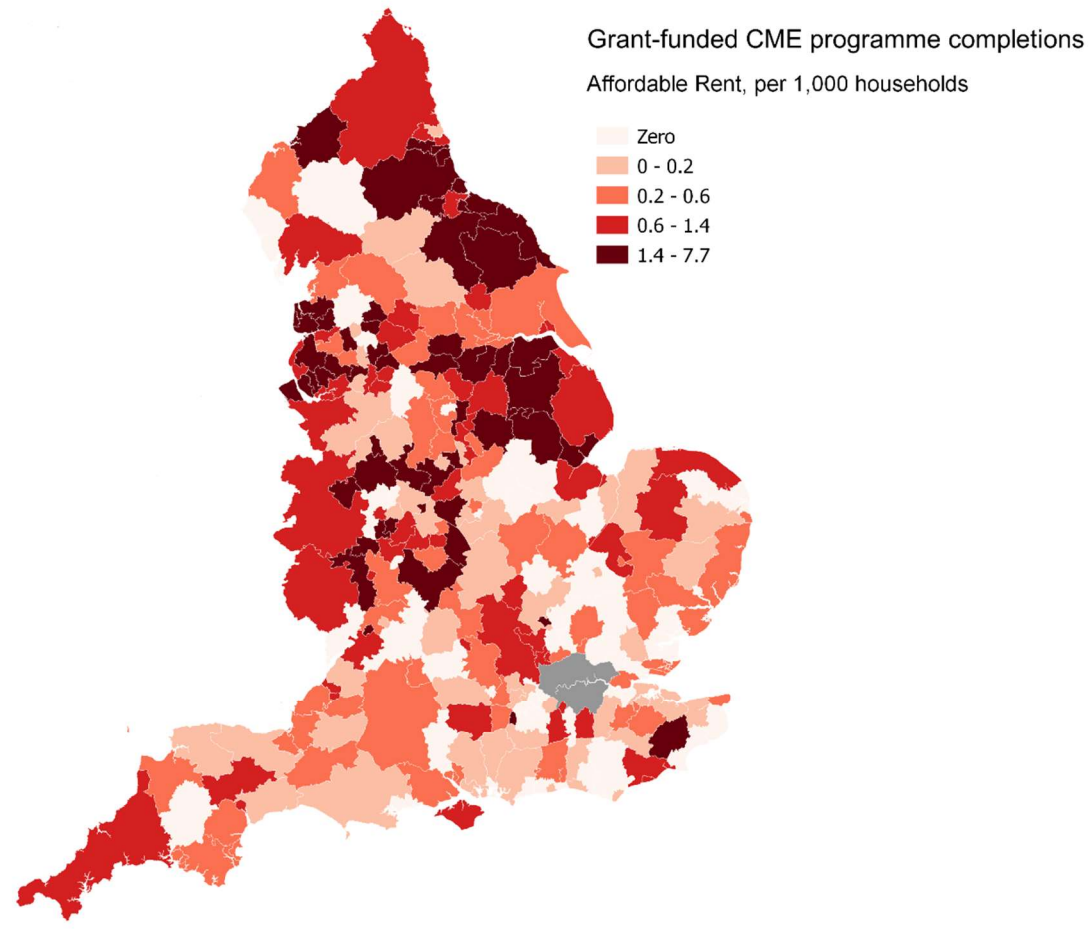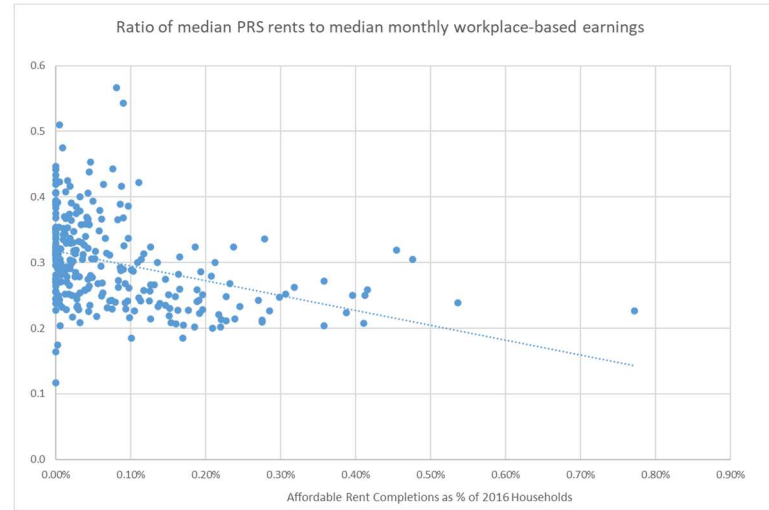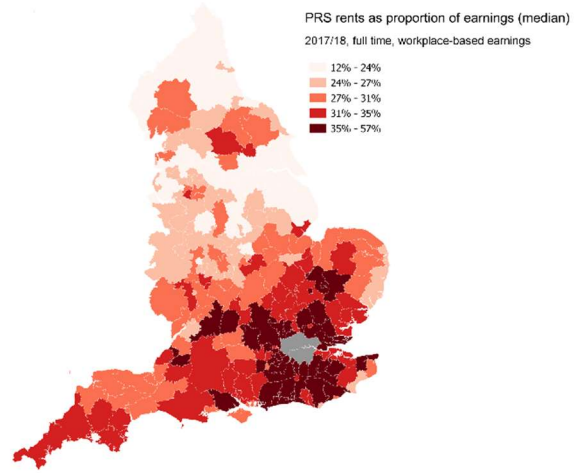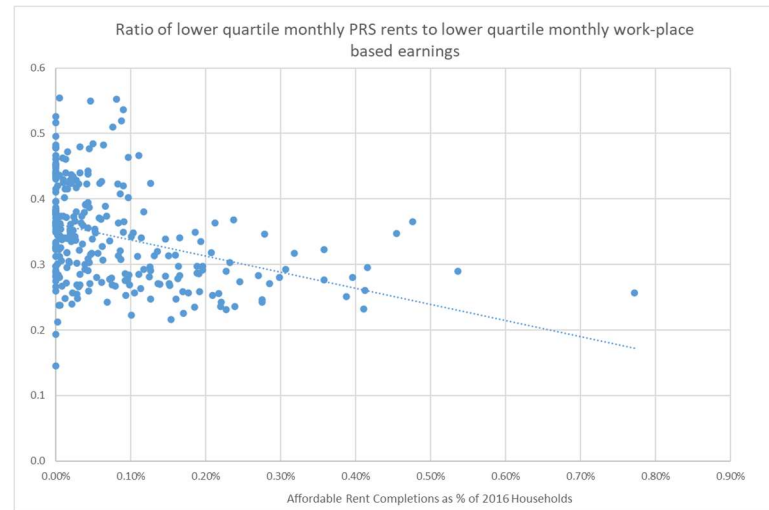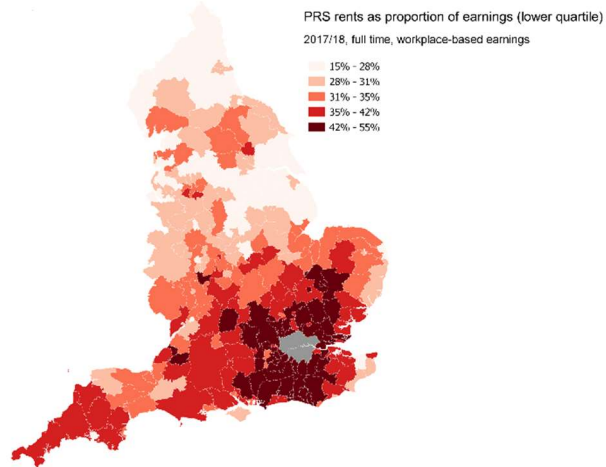|		
AHO5: First Time Buyer (FTB) house prices relative to all		
AHO6: Help to Buy (H2B) completions per 1000 households		
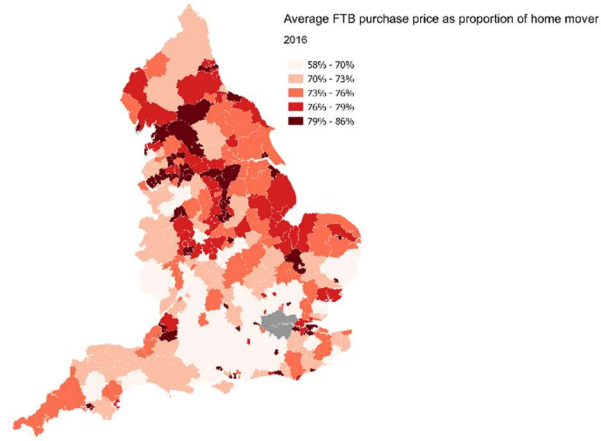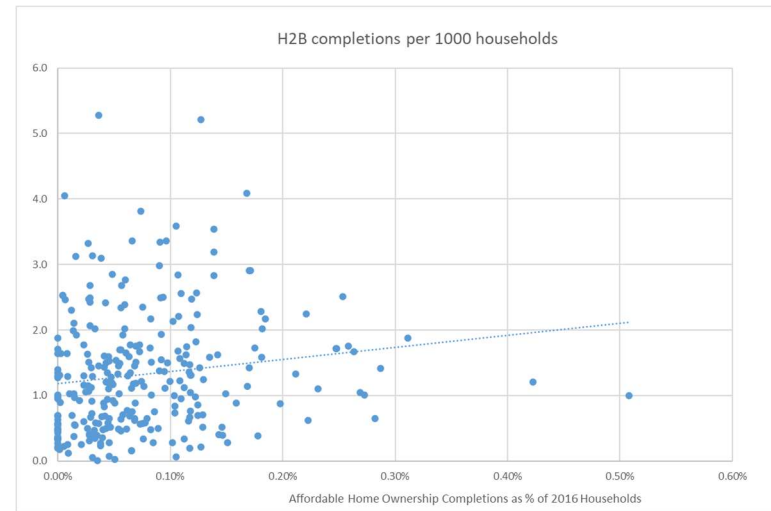
Affordable Rent

- **Covers 15,777 completions by March 2021**

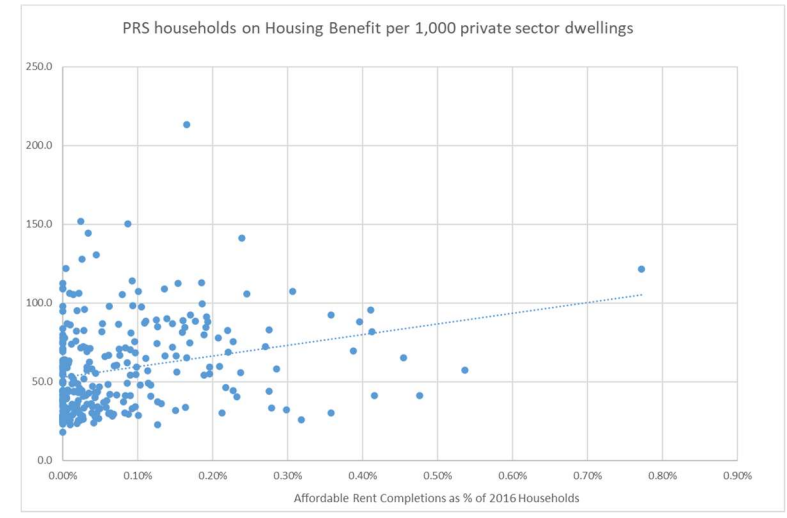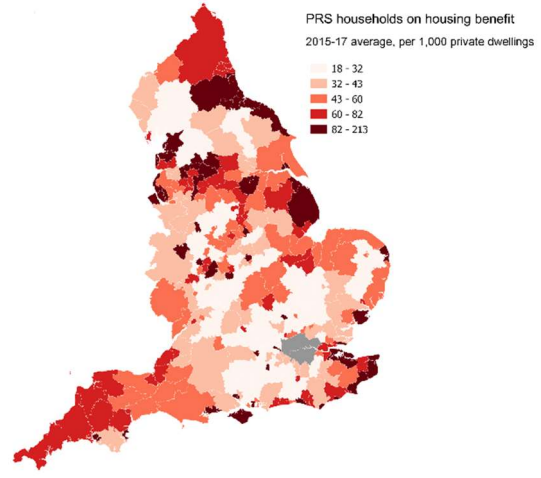

Grant-funded CME programme completions

Affordable Rent, per 1,000 households

Zero
0 - 0.2
0.2 - 0.6
0.6 - 1.4
1.4 - 7.7

AR1: Ratio of median PRS rents to median monthly workplace-based earnings

PRS rents as proportion of earnings (median)
2017/18, full time, workplace-based earnings

- 12% – 24%
- 24% – 27%
- 27% – 31%
- 31% – 35%
- 35% – 57%

Ratio of median PRS rents to median monthly workplace-based earnings

Affordable Rent Completions as % of 2016 Households

AR2: Ratio of lower quartile monthly PRS rents to lower quartile monthly work-place based earnings

PRS rents as proportion of earnings (lower quartile)
2017/18, full time, workplace-based earnings

- 15% – 28%
- 28% – 31%
- 31% – 35%
- 35% – 42%
- 42% – 55%
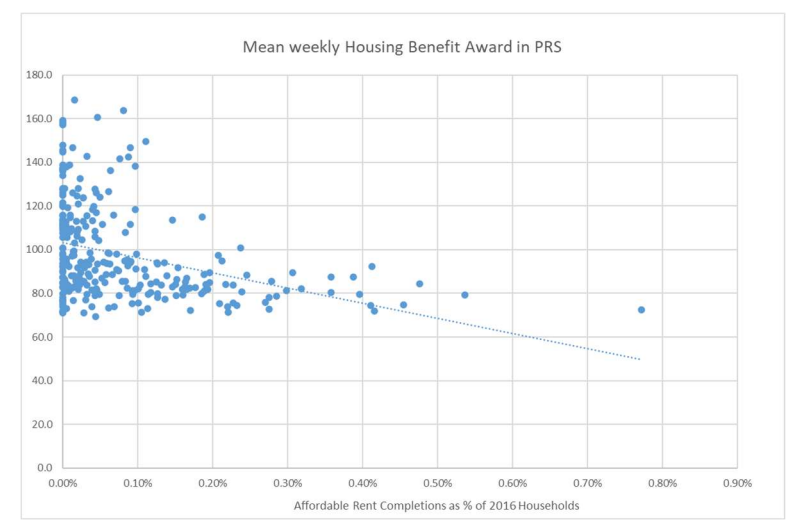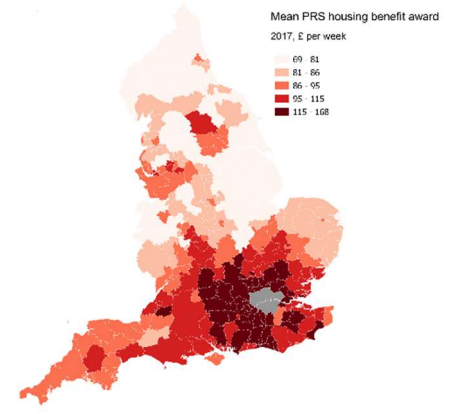
Ratio of lower quartile monthly PRS rents to lower quartile monthly work-place based earnings

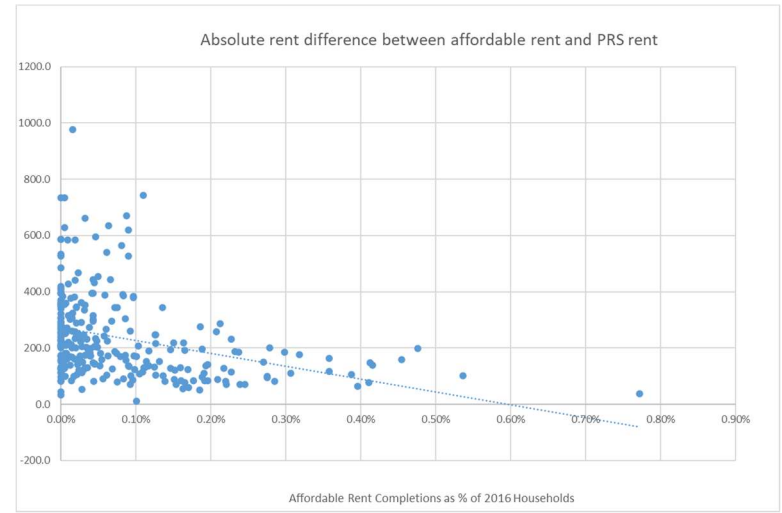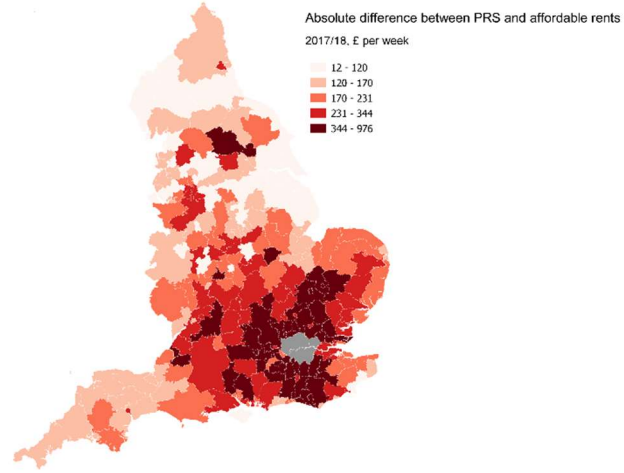Affordable Rent Completions as % of 2016 Households

AR3: PRS households on Housing Benefit per 1,000 private sector dwellings		
AR4: Mean weekly Housing Benefit Award in PRS		

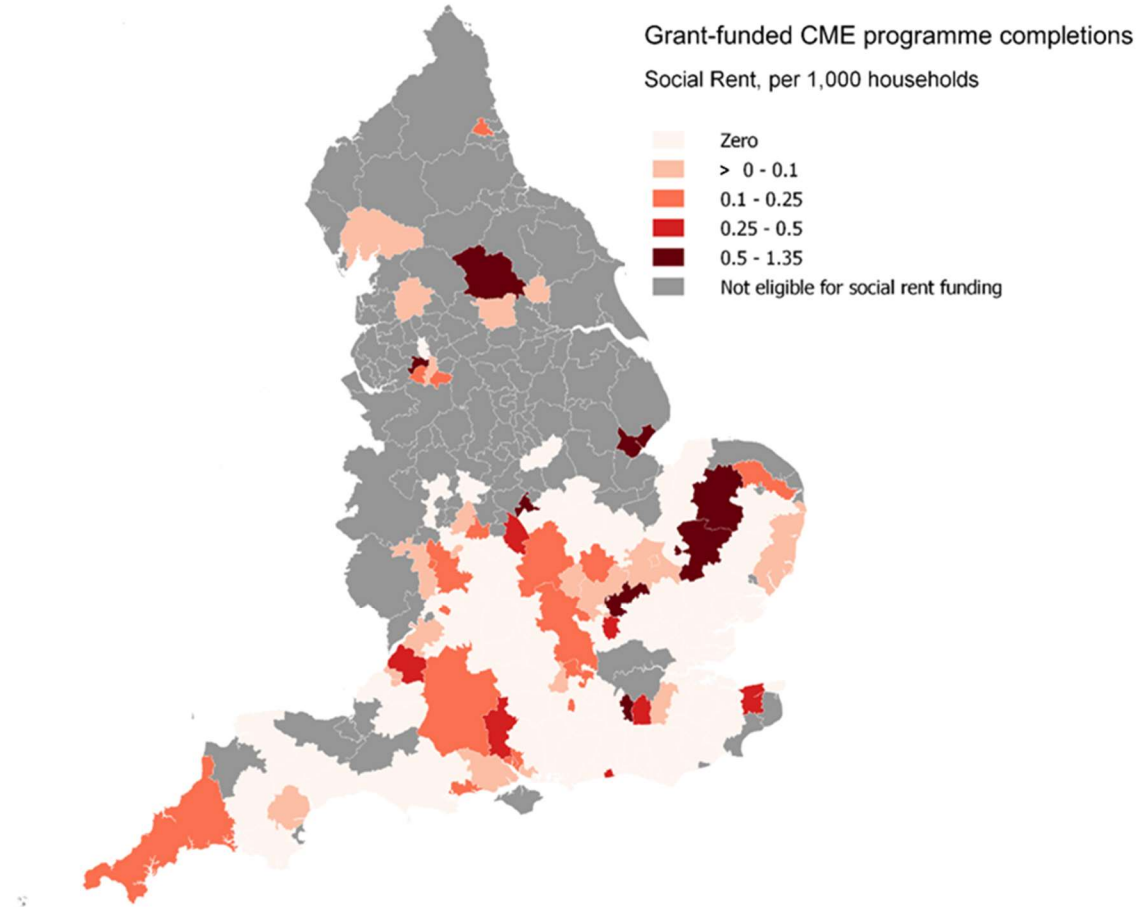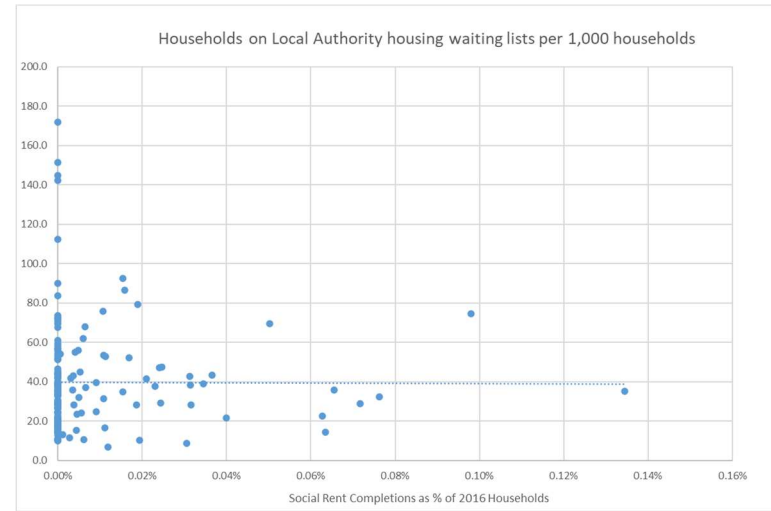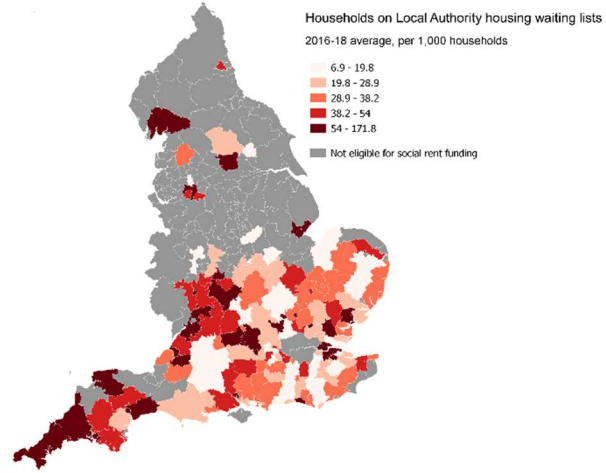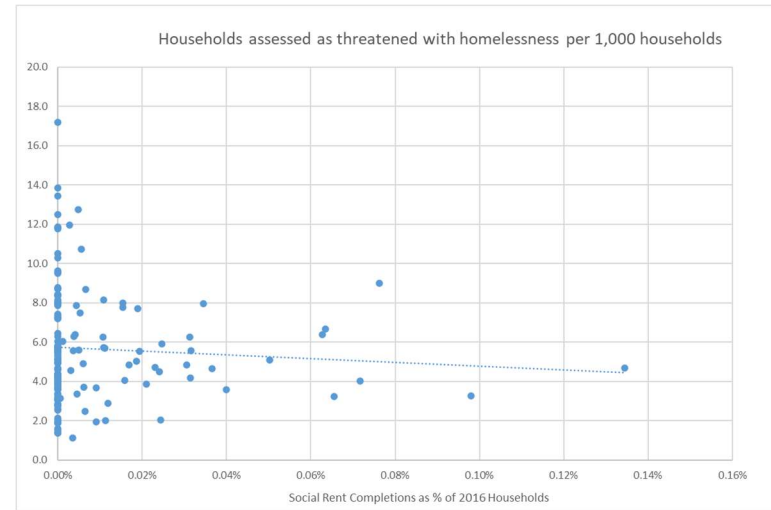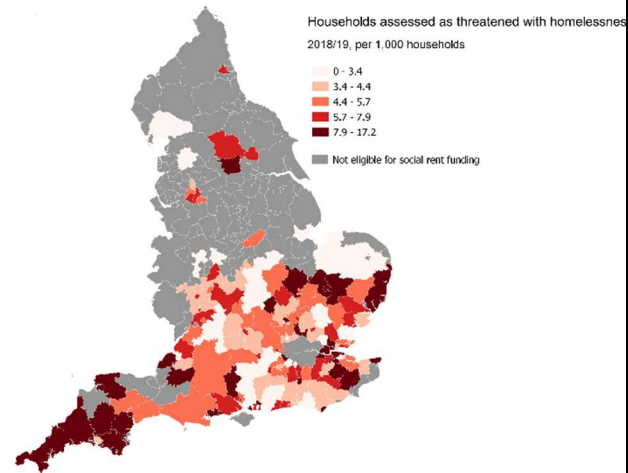|		
AR5: Absolute rent difference between affordable rent and PRS rent	Absolute difference between PRS and affordable rents 2017/18, £ per week 12 - 120 120 - 170 170 - 231 231 - 344 344 - 976	Absolute rent difference between affordable rent and PRS rent

Social Rent

- **Covers 908 completions by March 2021**
- **Analysis covers eligible areas only**

Grant-funded CME programme completions

Social Rent, per 1,000 households

Zero
\> 0 - 0.1
0.1 - 0.25
0.25 - 0.5
0.5 - 1.35
Not eligible for social rent funding

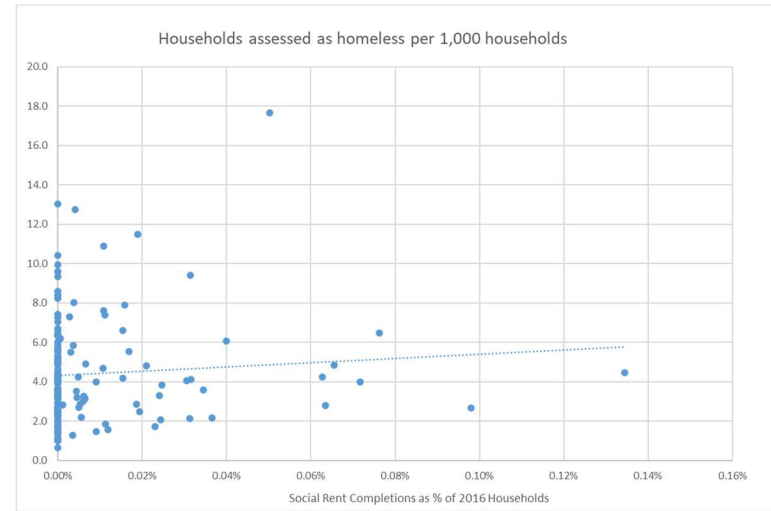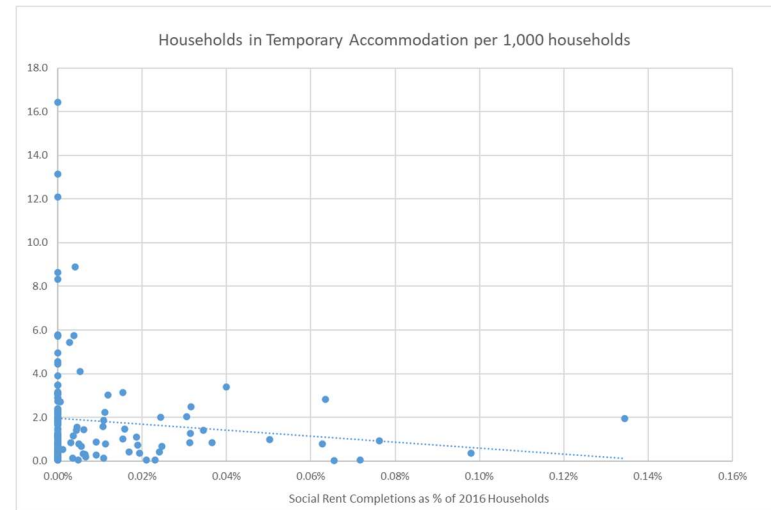|		
SR1: Households on Local Authority housing waiting lists per 1,000 households	Households on Local Authority housing waiting lists 2016-18 average, per 1,000 households 6.9 - 19.8 19.8 - 28.9 28.9 - 38.2 38.2 - 54 54 - 171.8 Not eligible for social rent funding	Households on Local Authority housing waiting lists per 1,000 households Social Rent Completions as % of 2016 Households
SR2: Households assessed as threatened with homelessness per 1,000 households	Households assessed as threatened with homelessnes 2018/19, per 1,000 households 0 - 3.4 3.4 - 4.4 4.4 - 5.7 5.7 - 7.9 7.9 - 17.2 Not eligible for social rent funding	Households assessed as threatened with homelessness per 1,000 households Social Rent Completions as % of 2016 Households

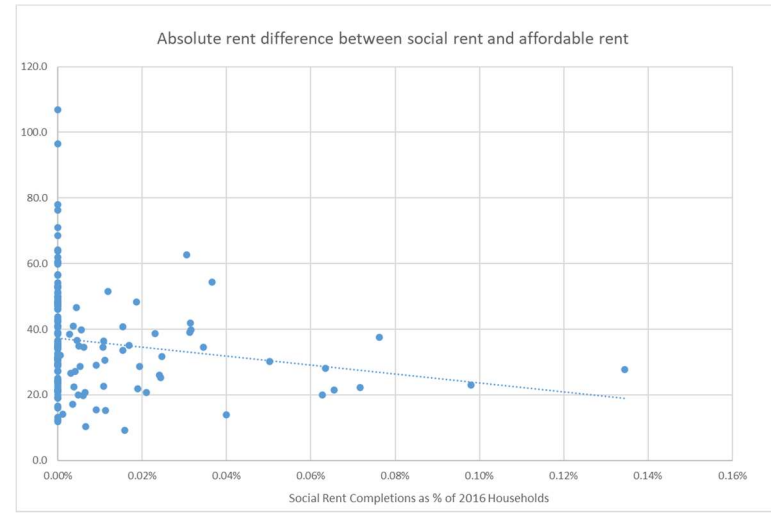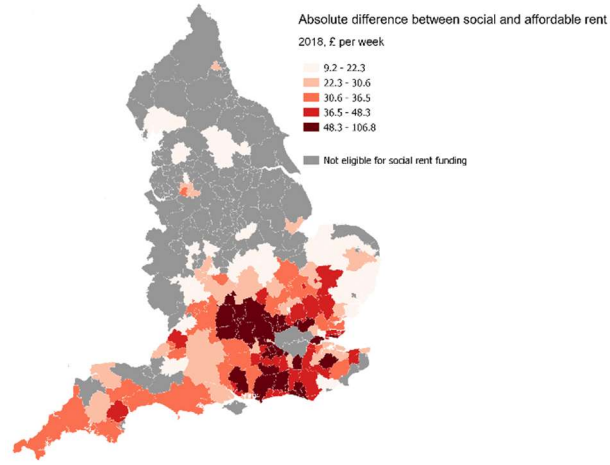|		
SR3: Households assessed as homeless per 1,000 households	Households assessed as homeless 2018/19, per 1,000 households 0 - 2.4 2.4 - 3.3 3.3 - 4.3 4.3 - 6 6 - 17.6 Not eligible for social rent funding	Households assessed as homeless per 1,000 households
SR4: Households in Temporary Accommodation per 1,000 households	Households in temporary accomodation 2018, per 1,000 households 0 - 0.4 0.4 - 0.8 0.8 - 1.5 1.5 - 2.8 2.8 - 16.4 Not eligible for social rent funding	Households in Temporary Accommodation per 1,000 households

SR5: Absolute rent difference between social rent and affordable rent

Absolute difference between social and affordable rent
2018, £ per week

9.2 - 22.3
22.3 - 30.6
30.6 - 36.5
36.5 - 48.3
48.3 - 106.8
Not eligible for social rent funding

Absolute rent difference between social rent and affordable rent

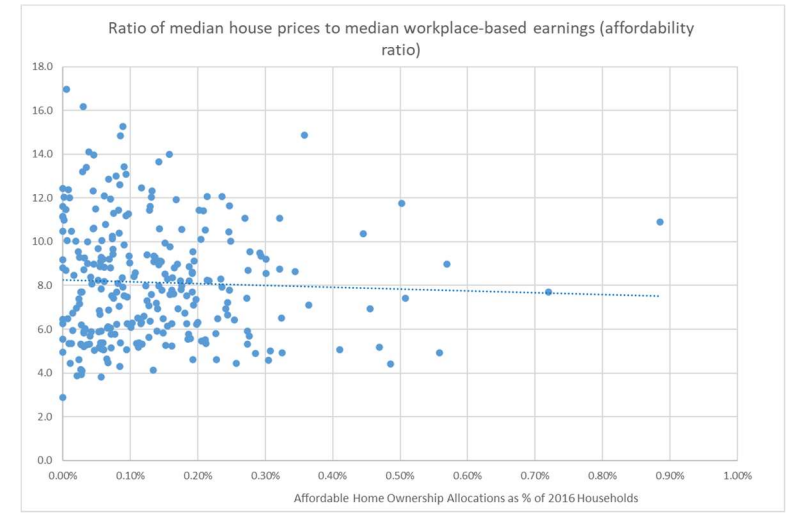Social Rent Completions as % of 2016 Households

2. CME *grant-funded* <u>ALLOCATIONS</u>

Affordable Homes Ownership

- **Covers 25,620 allocations by March 2021**

Grant-funded CME programme allocations

Affordable Home Ownership, per 1,000 households

- 0 - 0.4
- 0.4 - 0.7
- 0.7 - 1.3
- 1.3 - 2
- 2 - 8.8

AHO1: Median house prices to median workplace-based earnings		
AHO2: Ratio of lower quartile house prices to lower quartile workplace-based earnings		

AHO3: Growth in PRS post financial crisis	Change in number of PRS households 2013 to 2016, percentage change 4.9% - 7.4% 7.4% - 8.5% 8.5% - 9.1% 9.1% - 10.2% 10.2% - 14.9%	Growth in PRS post financial crisis Affordable Home Ownership Allocations as % of 2016 Households
AHO4: Rent to earnings ratio	PRS rent as a proportion of earnings (mean) 2016/17, full time, workplace-based earnings 13% - 22% 22% - 25% 25% - 28% 28% - 33% 33% - 53%	Rent to earnings ratio Affordable Home Ownership Allocations as % of 2016 Households

AHO5: FTB house prices relative to all	Average FTB purchase price as proportion of home mover 2016 58% - 70% 70% - 73% 73% - 76% 76% - 79% 79% - 86%	Av FTB purchase price as % all home movers Affordable Home Ownership Allocations as % of 2016 Households
AHO6: H2B completions per 1000 households	Help to Buy Equity Loan completions 2014/15-2016/17 average, per 1,000 households 0 - 0.5 0.5 - 1 1 - 1.4 1.4 - 1.9 1.9 - 5.3	H2B completions per 1000 households Affordable Home Ownership Allocations as % of 2016 Households

Affordable Rent

- **Covers 30.373 allocations by March 2021**

Grant-funded CME programme allocations

Affordable Rent, per 1,000 households

- 0 - 0.2
- 0.2 - 0.6
- 0.6 - 1.3
- 1.3 - 2.9
- 2.9 - 9.3

AR1: Ratio of median PRS rents to median monthly workplace-based earnings	PRS rents as proportion of earnings (median) 2017/18, full time, workplace-based earnings 12% – 24% 24% – 27% 27% – 31% 31% – 35% 35% – 57%	Ratio of median PRS rents to median monthly workplace-based earnings Affordable Rent Allocations as % of 2016 Households
AR2: Ratio of lower quartile monthly PRS rents to lower quartile monthly work-place based earnings	PRS rents as proportion of earnings (lower quartile) 2017/18, full time, workplace-based earnings 15% – 28% 28% – 31% 31% – 35% 35% – 42% 42% – 55%	Ratio of lower quartile monthly PRS rents to lower quartile monthly work-place based earnings Affordable Rent Allocations as % of 2016 Households

AR3: PRS households on Housing Benefit per 1,000 private sector dwellings		
AR4: Mean weekly Housing Benefit Award in PRS		

AR5: Absolute rent difference between affordable rent and PRS rent

Absolute difference between PRS and affordable rents
2017/18, £ per week

12 - 120
120 - 170
170 - 231
231 - 344
344 - 976

Absolute rent difference between affordable rent and PRS rent

Affordable Rent Allocations as % of 2016 Households

Social Rent

- **Covers 3,627 allocations by March 2021**
- **Analysis covers eligible areas only**
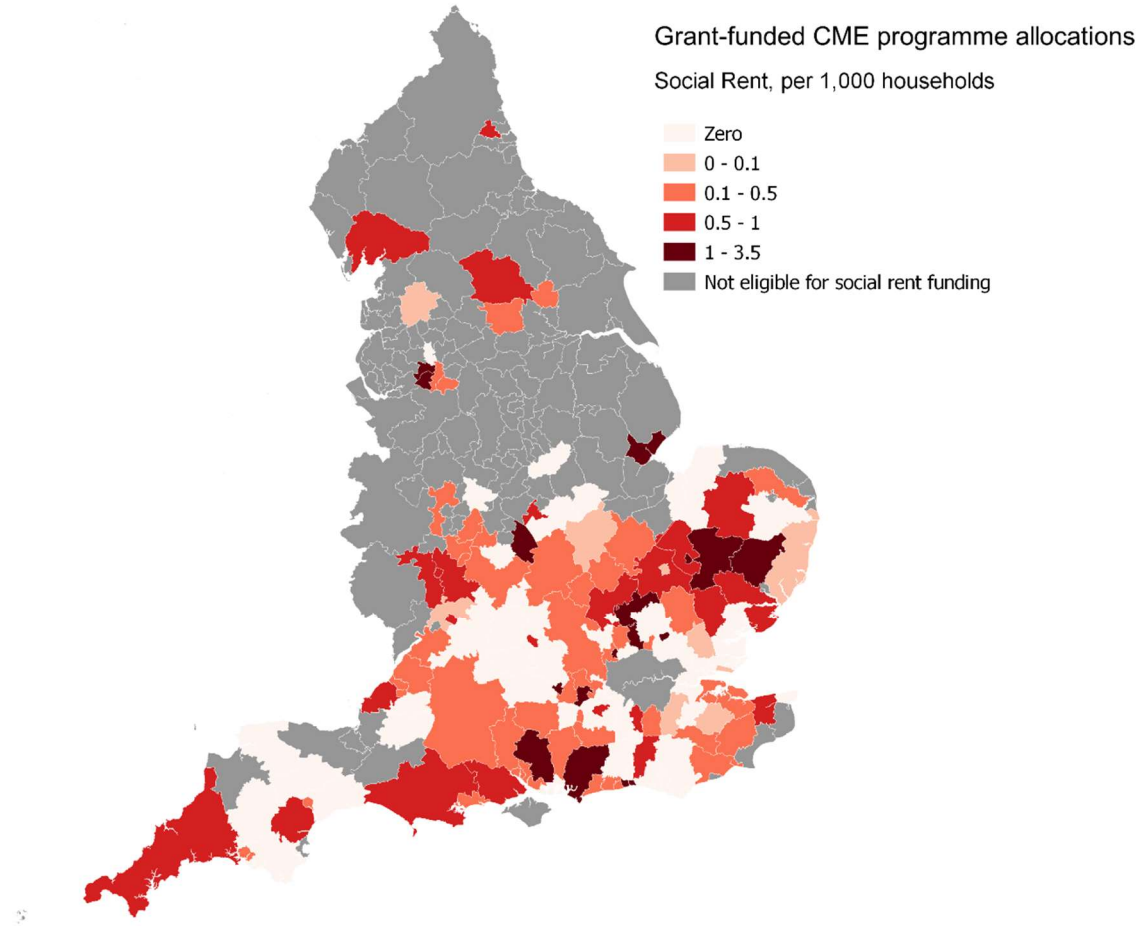
Grant-funded CME programme allocations

Social Rent, per 1,000 households

- Zero
- 0 - 0.1
- 0.1 - 0.5
- 0.5 - 1
- 1 - 3.5
- Not eligible for social rent funding

SR1: Households on Local Authority housing waiting lists per 1,000 households	Households on Local Authority housing waiting lists 2016-18 average, per 1,000 households 6.9 - 19.8 19.8 - 28.9 28.9 - 38.2 38.2 - 54 54 - 171.8 Not eligible for social rent funding	Households on Local Authority housing waiting lists per 1,000 households
SR2: Households assessed as threatened with homelessness per 1,000 households	Households assessed as threatened with homelessnes 2018/19, per 1,000 households 0 - 3.4 3.4 - 4.4 4.4 - 5.7 5.7 - 7.9 7.9 - 17.2 Not eligible for social rent funding	Households assessed as threatened with homelessness per 1,000 households
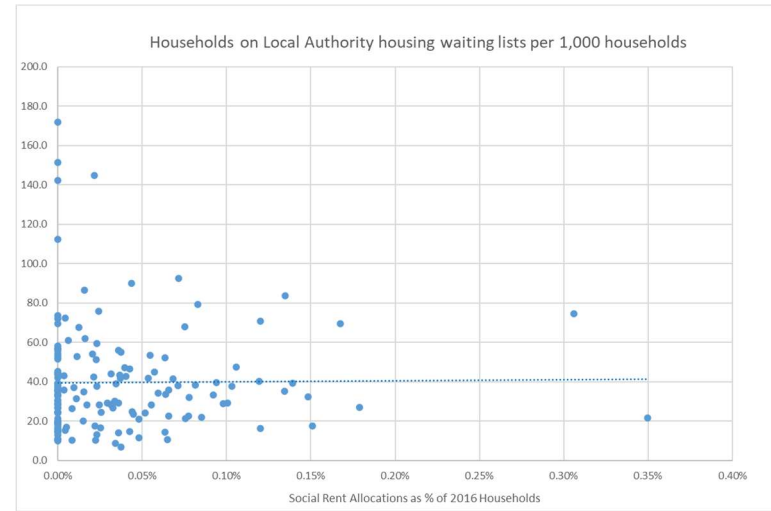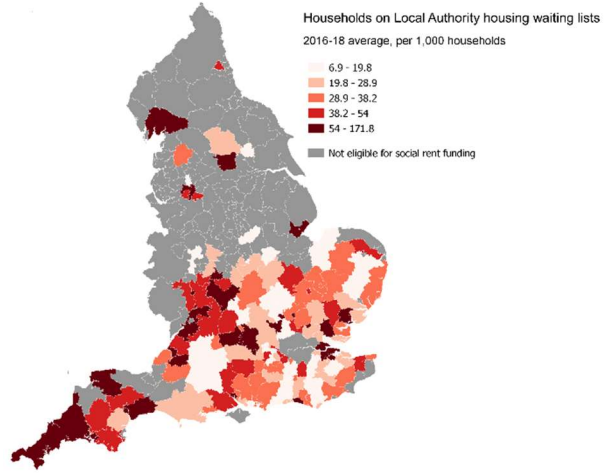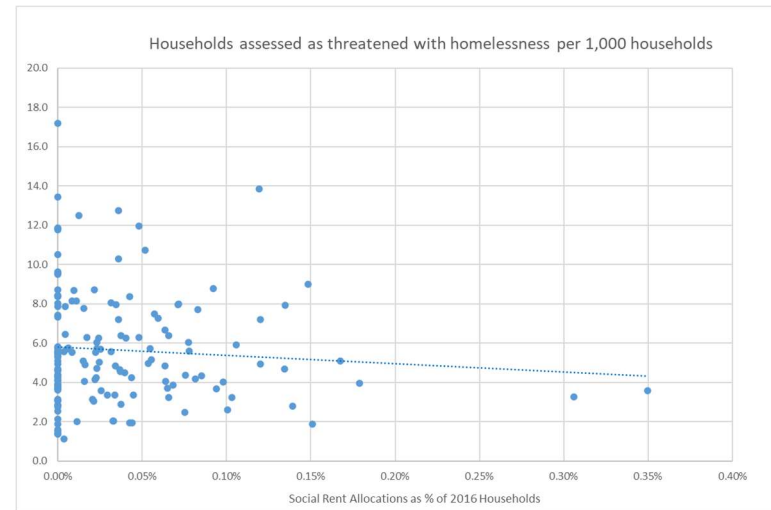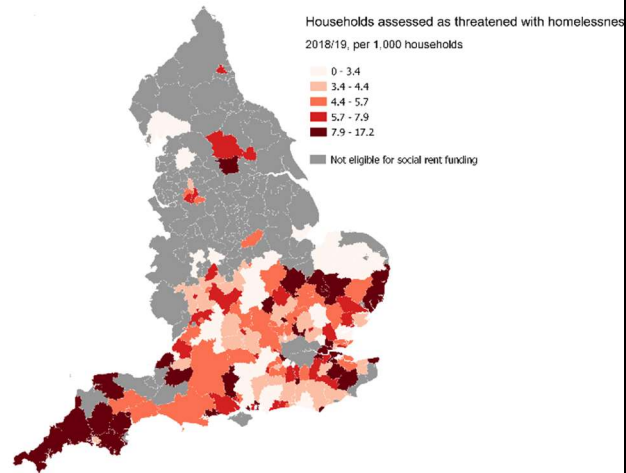
SR3: Households assessed as homeless per 1,000 households
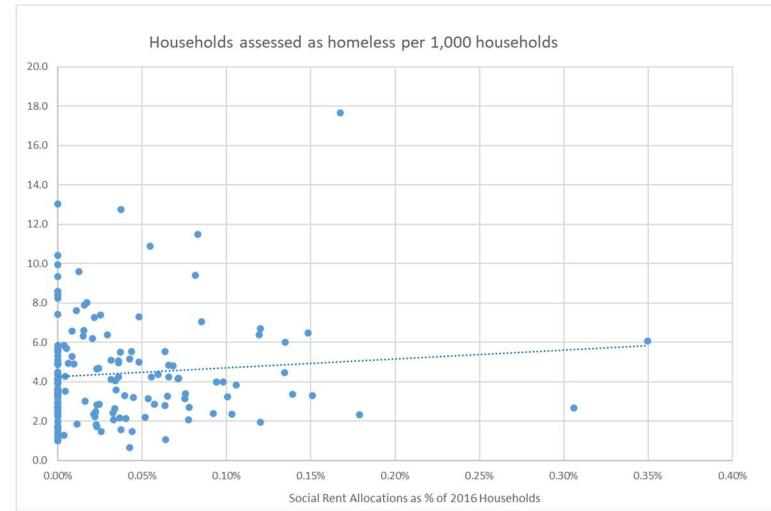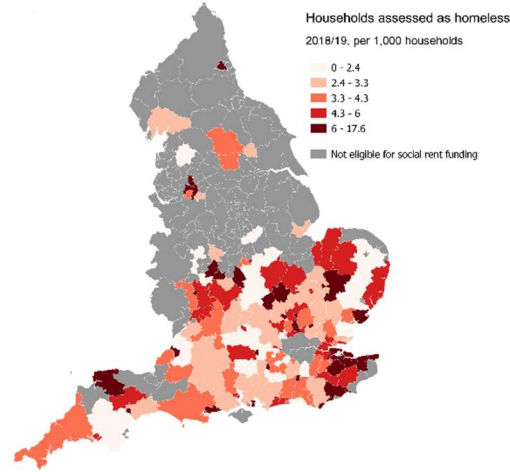
SR4: Households in Temporary Accommodation per 1,000 households
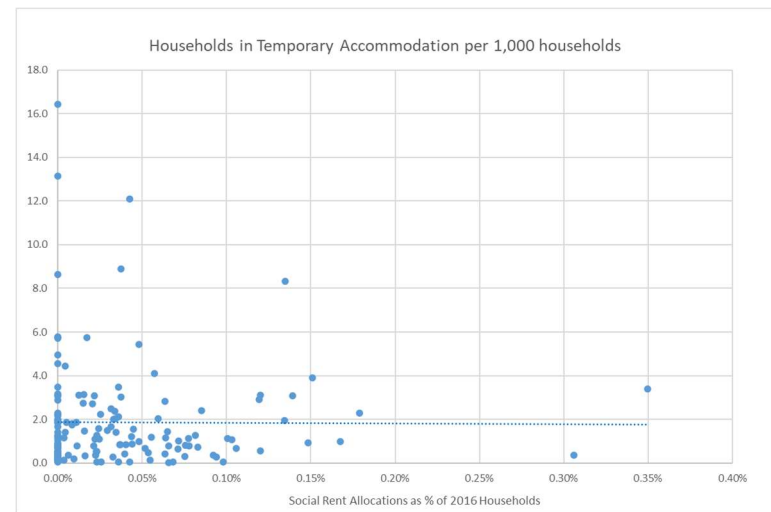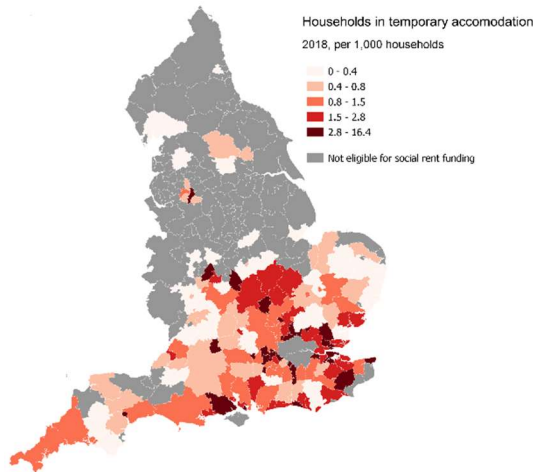
SR5: Absolute rent difference between social rent and affordable rent		
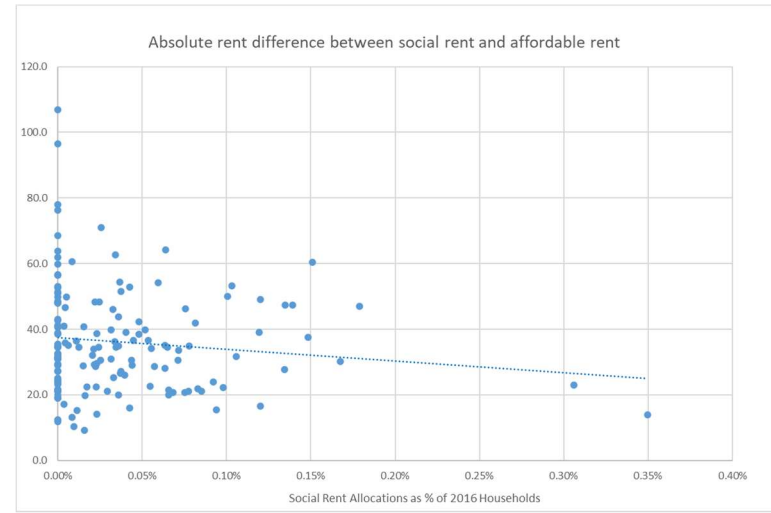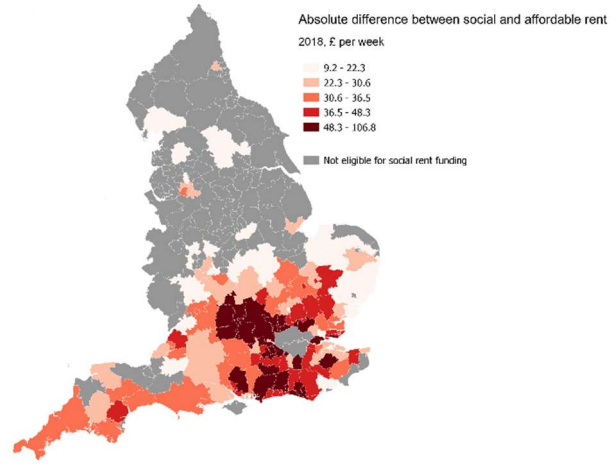
3. CME *nil-grant* COMPLETIONS

Affordable Homes Ownership

- **Covers 9,347 nil-grant completions by March 2021**
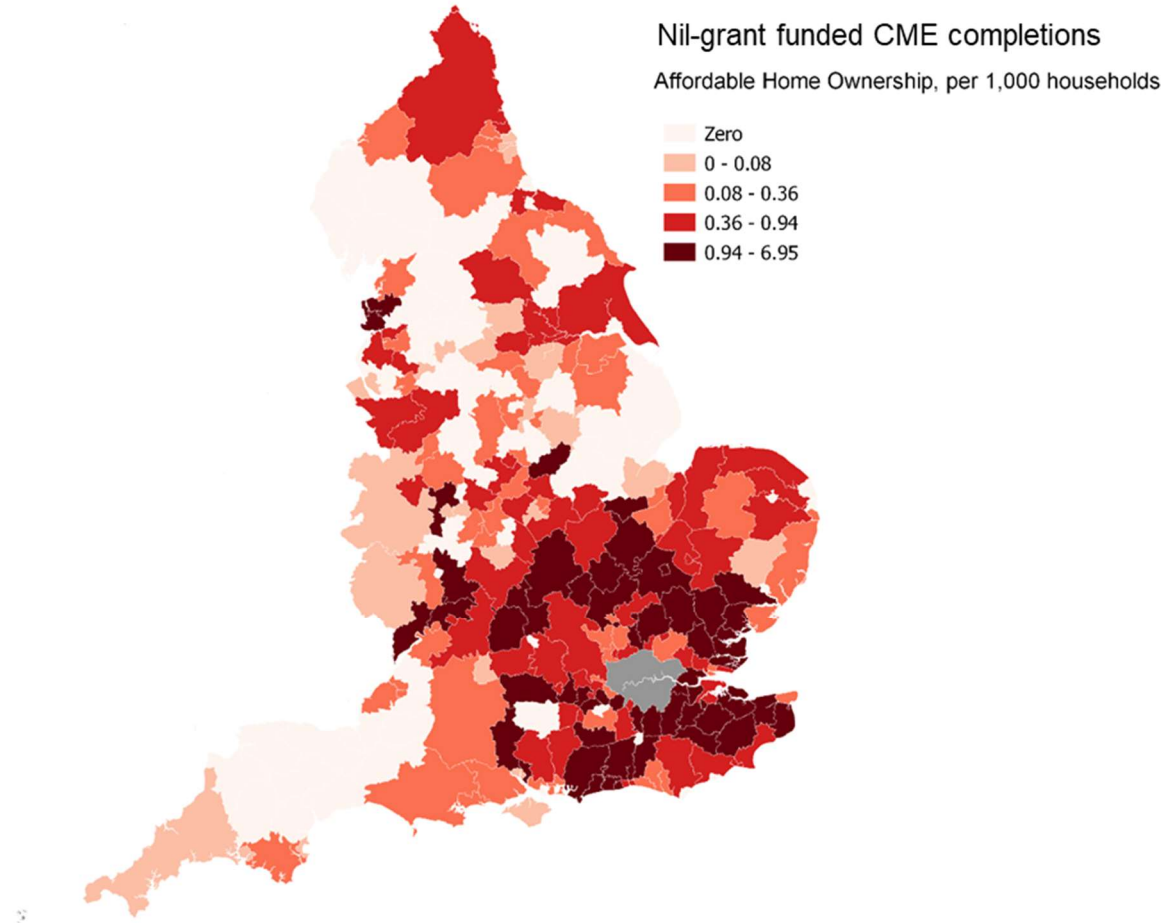
Nil-grant funded CME completions

Affordable Home Ownership, per 1,000 households

- Zero
- 0 - 0.08
- 0.08 - 0.36
- 0.36 - 0.94
- 0.94 - 6.95

AHO1: Median house prices to median workplace-based earnings		
AHO2: Ratio of lower quartile house prices to lower quartile workplace-based earnings		

AHO3: Growth in PRS post financial crisis		
AHO4: Rent to earnings ratio		

AHO5: FTB house prices relative to all	Average FTB purchase price as proportion of home mover 2016 58% - 70% 70% - 73% 73% - 76% 76% - 79% 79% - 86%	Av. FTB purchase price as % all home movers Affordable Home Ownership Completions as % of 2016 Households
AHO6: H2B completions per 1000 households	Help to Buy Equity Loan completions 2014/15-2016/17 average, per 1,000 households 0 - 0.5 0.5 - 1 1 - 1.4 1.4 - 1.9 1.9 - 5.3	H2B completions per 1000 households Affordable Home Ownership Completions as % of 2016 Households
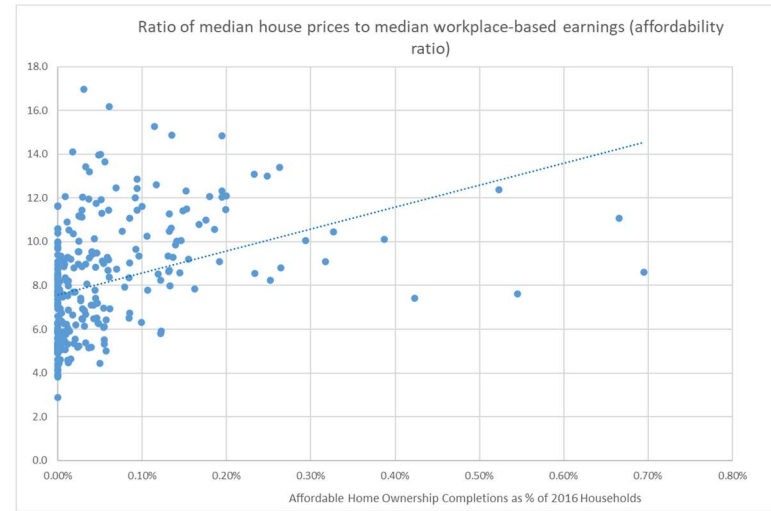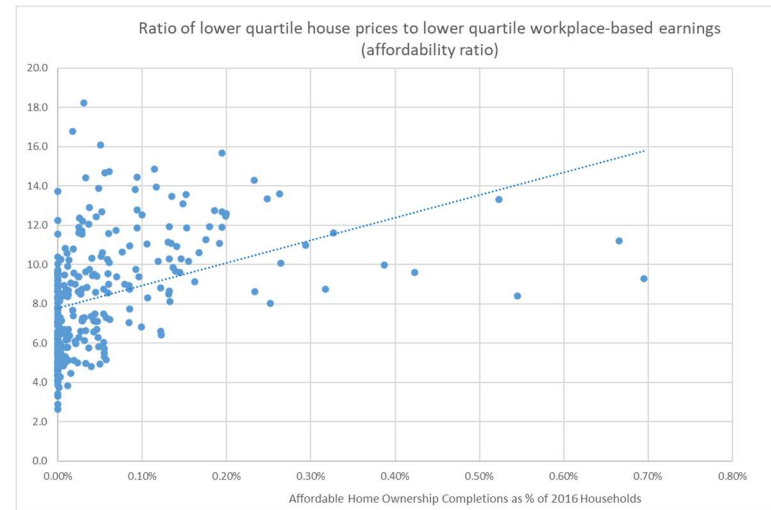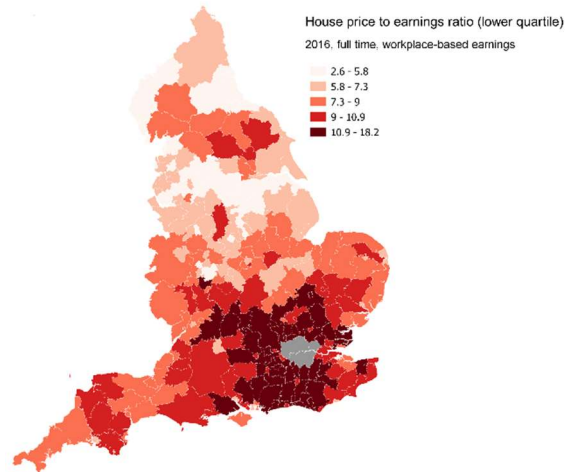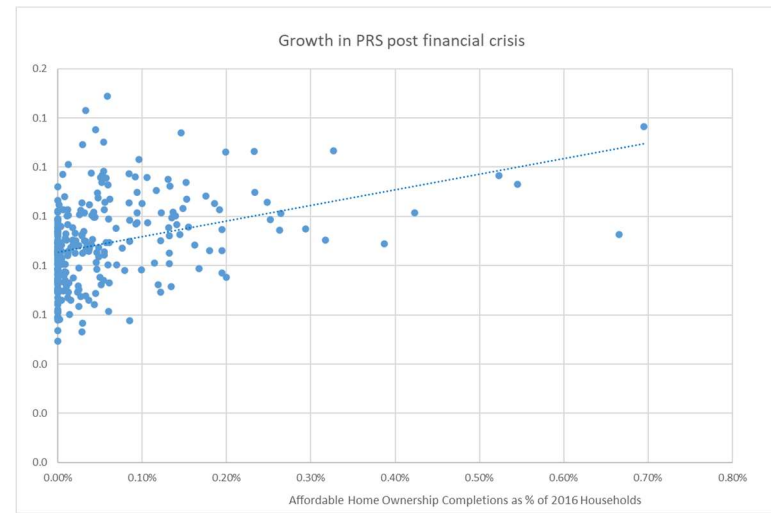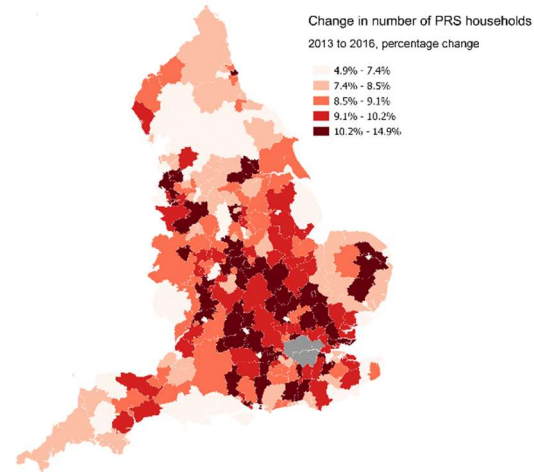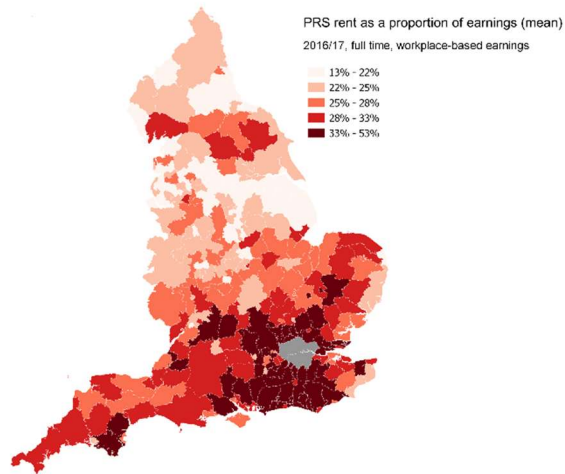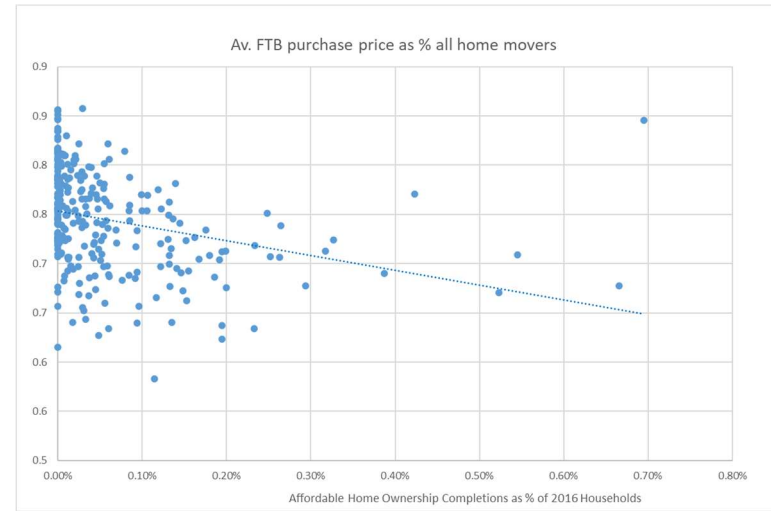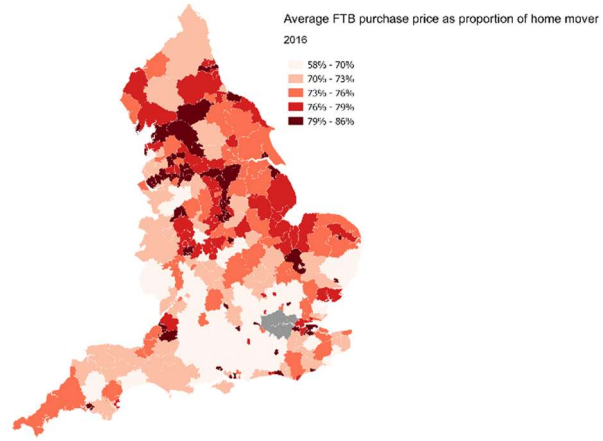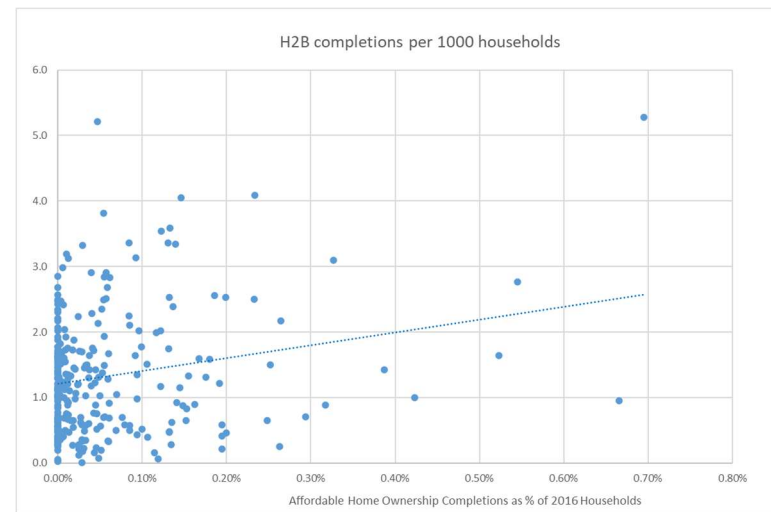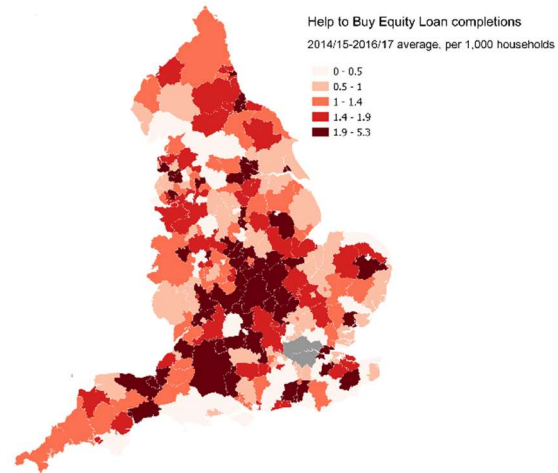
Affordable Rent

- **Covers 23,216 nil-grant completions by March 2021**

Nil-grant funded CME completions

Affordable Rent, per 1,000 households

- 0 - 0.05
- 0.05 - 0.4
- 0.4 - 1
- 1 - 2.38
- 2.38 - 13.24

AR1: Ratio of median PRS rents to median monthly workplace-based earnings

AR2: Ratio of lower quartile monthly PRS rents to lower quartile monthly work-place based earnings

AR3: PRS households on Housing Benefit per 1,000 private sector dwellings		
AR4: Mean weekly Housing Benefit Award in PRS		
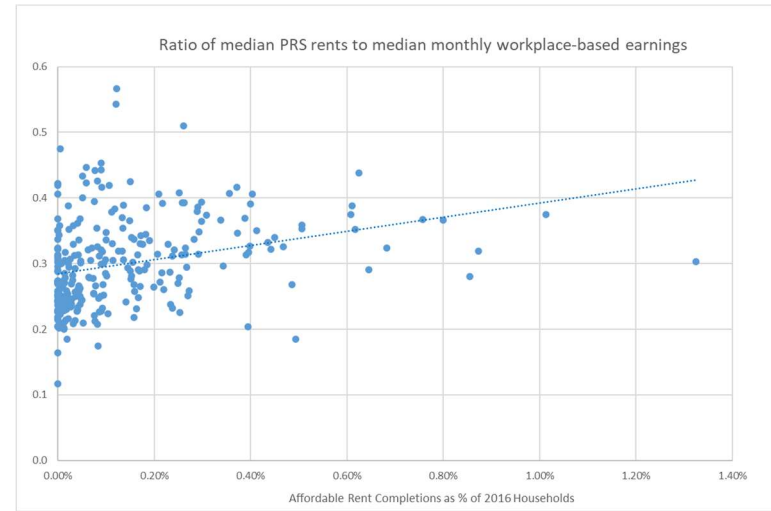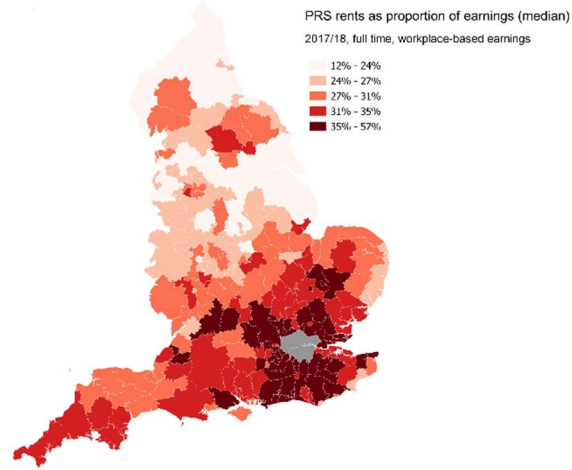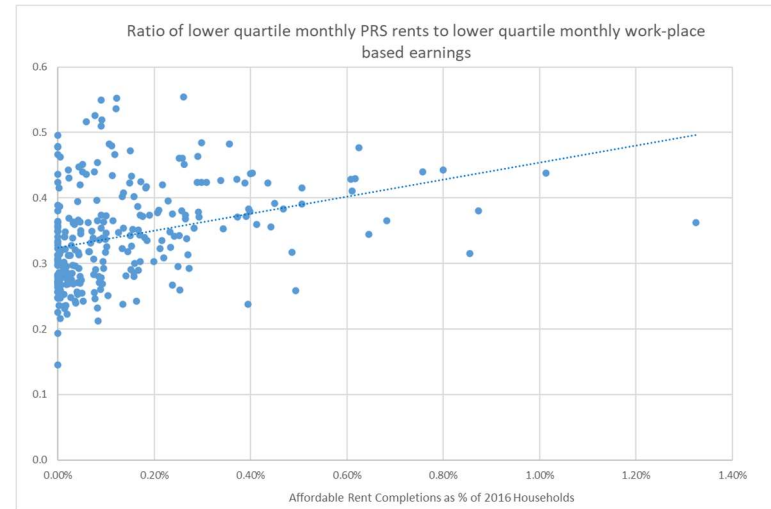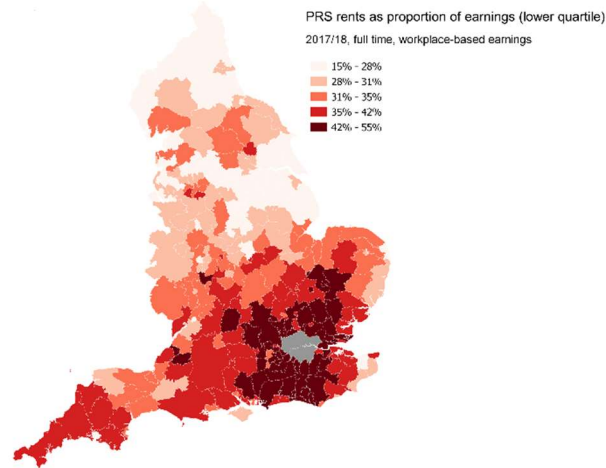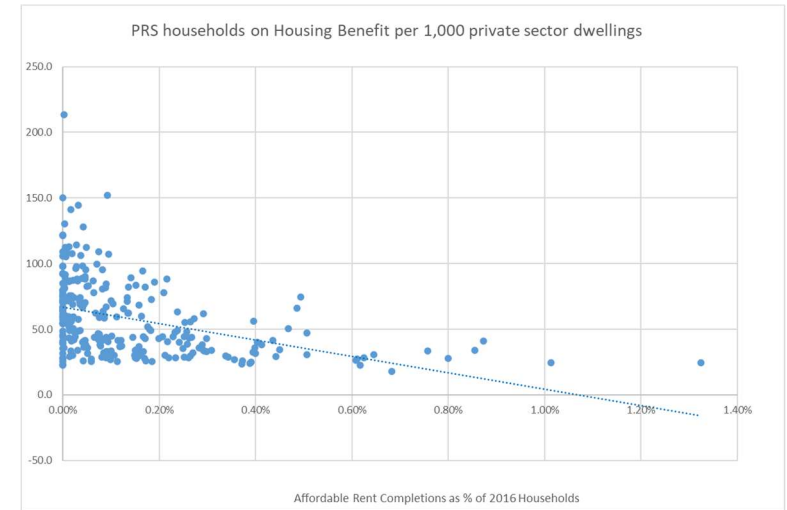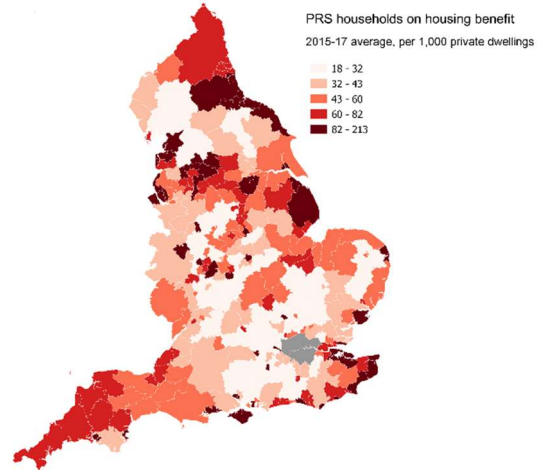
AR5: Absolute rent difference between affordable rent and PRS rent	Absolute difference between PRS and affordable rents 2017/18, £ per week 12 - 120 120 - 170 170 - 231 231 - 344 344 - 976	Absolute rent difference between affordable rent and PRS rent

4. CME nil-grant ALLOCATIONS

Affordable Homes Ownership

- **Covers 11,397 nil-grant allocations by March 2021**

Nil-grant funded CME allocations

Affordable Home Ownership, per 1,000 households

Zero
0 - 0.1
0.1 - 0.4
0.4 - 1.1
1.1 - 11

AHO1: Median house prices to median workplace-based earnings	House price to earnings ratio (median) 2016, full time, workplace-based earnings 2.9 - 5.6 5.6 - 7.1 7.1 - 8.7 8.7 - 10.5 10.5 - 17	Ratio of median house prices to median workplace-based earnings (affordability ratio)
AHO2: Ratio of lower quartile house prices to lower quartile workplace-based earnings	House price to earnings ratio (lower quartile) 2016, full time, workplace-based earnings 2.6 - 5.8 5.8 - 7.3 7.3 - 9 9 - 10.9 10.9 - 18.2	Ratio of lower quartile house prices to lower quartile workplace-based earnings (affordability ratio)

AHO3: Growth in PRS post financial crisis	Change in number of PRS households 2013 to 2016, percentage change 4.9% - 7.4% 7.4% - 8.5% 8.5% - 9.1% 9.1% - 10.2% 10.2% - 14.9%	
AHO4: Rent to earnings ratio	PRS rent as a proportion of earnings (mean) 2016/17, full time, workplace-based earnings 13% - 22% 22% - 25% 25% - 28% 28% - 33% 33% - 53%	

AHO5: FTB house prices relative to all	Average FTB purchase price as proportion of home mover 2016	Av. FTB purchase price as % all home movers
AHO6: H2B completions per 1000 households	Help to Buy Equity Loan completions 2014/15-2016/17 average, per 1,000 households	H2B completions per 1000 households

Affordable Rent

- **Covers 29,239 nil-grant allocations by March 2021**
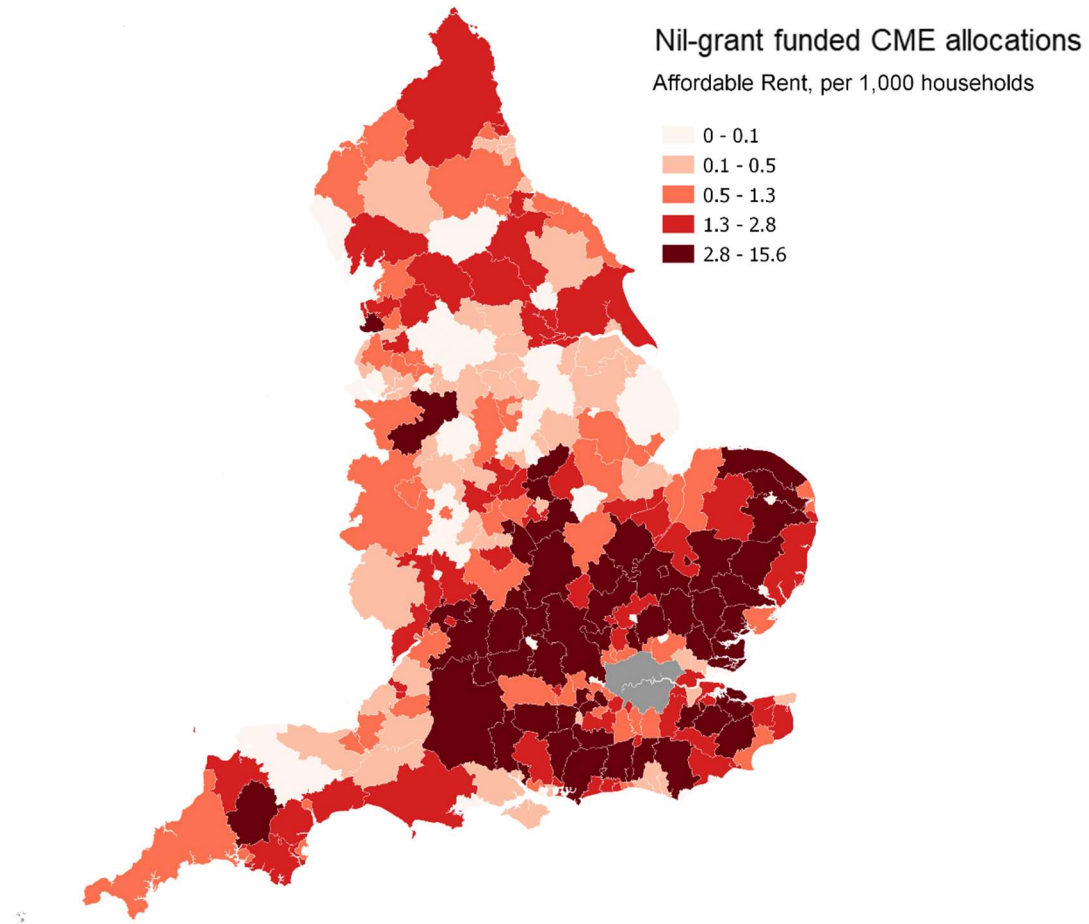
Nil-grant funded CME allocations

Affordable Rent, per 1,000 households

- 0 - 0.1
- 0.1 - 0.5
- 0.5 - 1.3
- 1.3 - 2.8
- 2.8 - 15.6

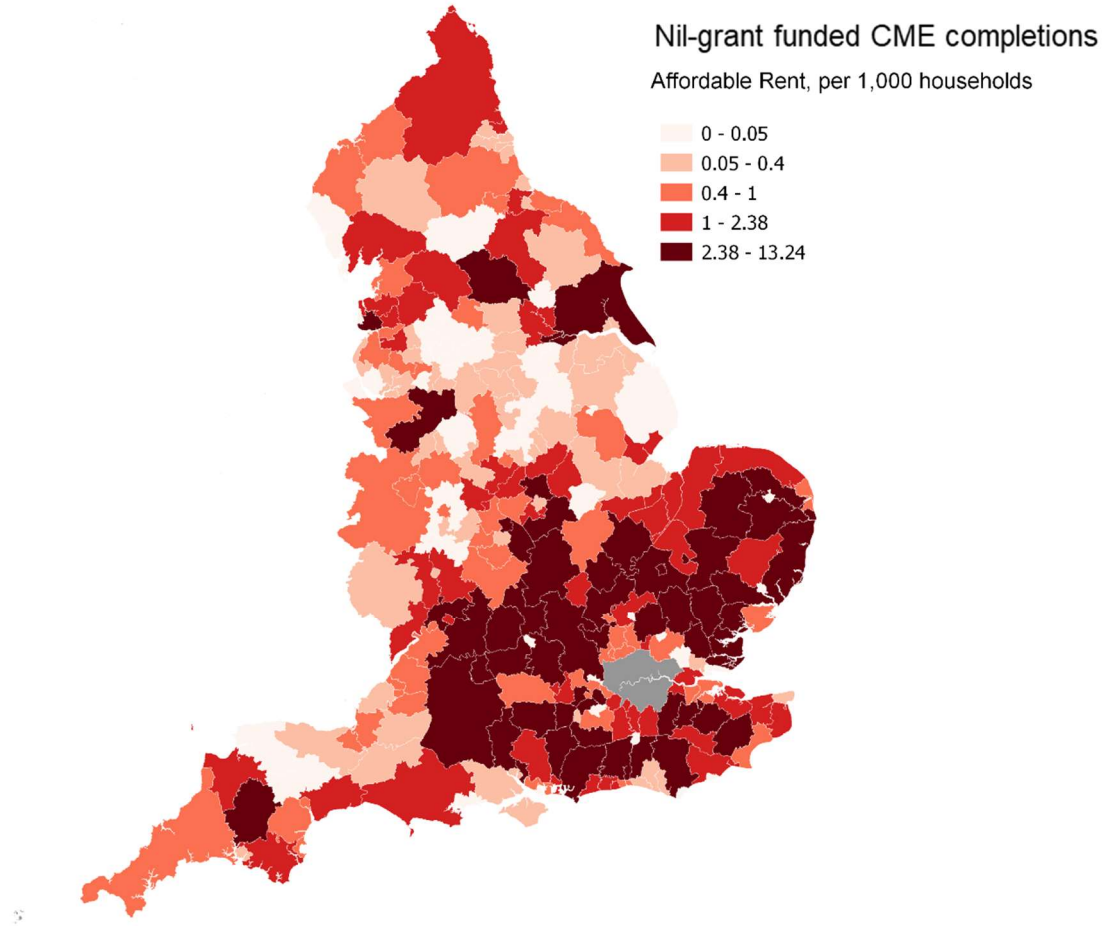|		
AR1: Ratio of median PRS rents to median monthly workplace-based earnings	PRS rents as proportion of earnings (median) 2017/18, full time, workplace-based earnings 12% – 24% 24% – 27% 27% – 31% 31% – 35% 35% – 57%	Ratio of median PRS rents to median monthly workplace-based earnings Affordable Rent Allocations as % of 2016 Households
AR2: Ratio of lower quartile monthly PRS rents to lower quartile monthly work-place based earnings	PRS rents as proportion of earnings (lower quartile) 2017/18, full time, workplace-based earnings 15% – 28% 28% – 31% 31% – 35% 35% – 42% 42% – 55%	Ratio of lower quartile monthly PRS rents to lower quartile monthly work-place based earnings Affordable Rent Allocations as % of 2016 Households
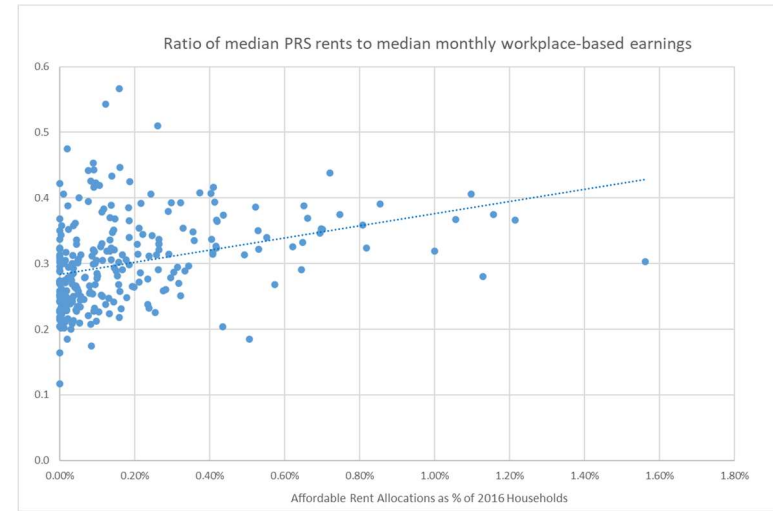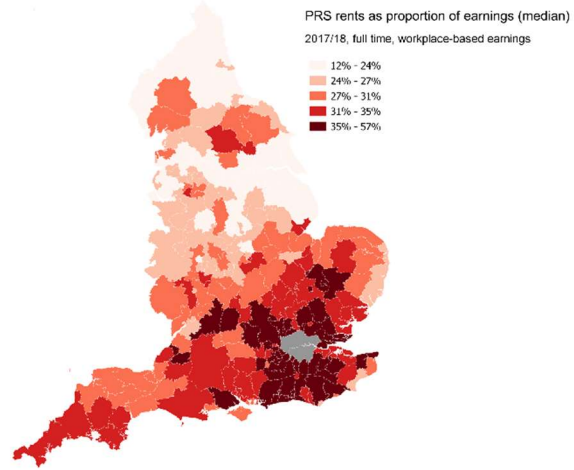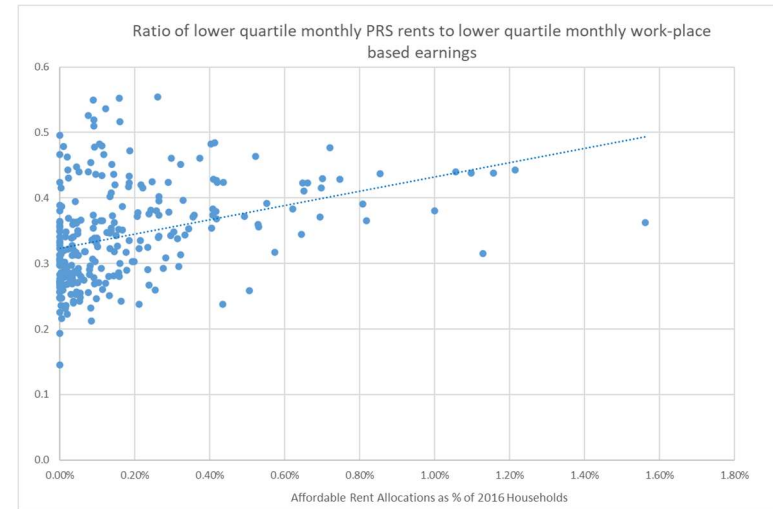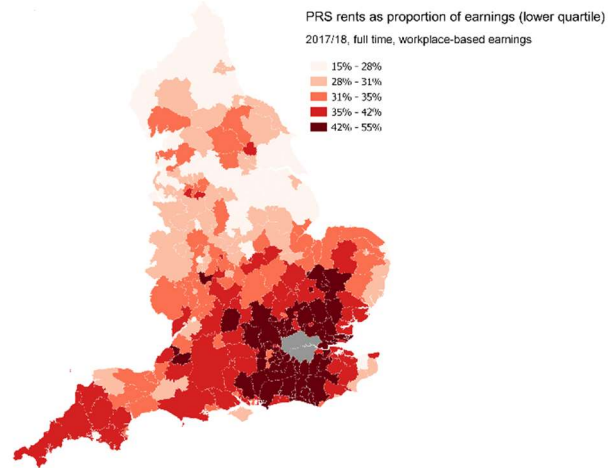
AR3: PRS households on Housing Benefit per 1,000 private sector dwellings
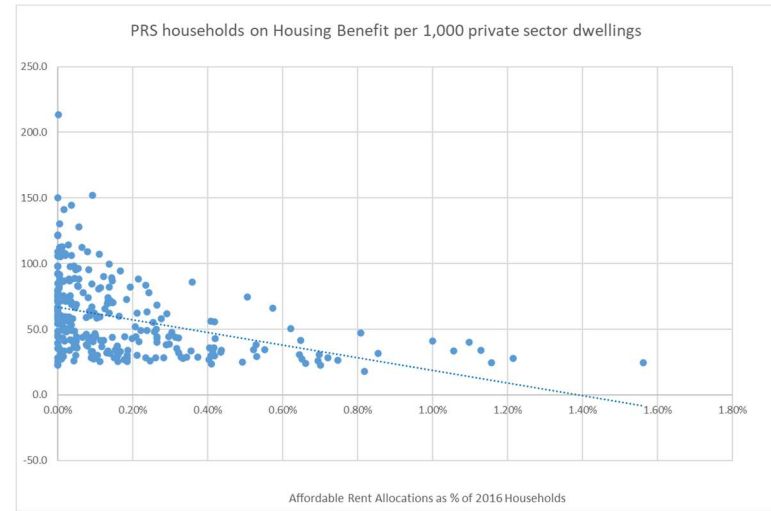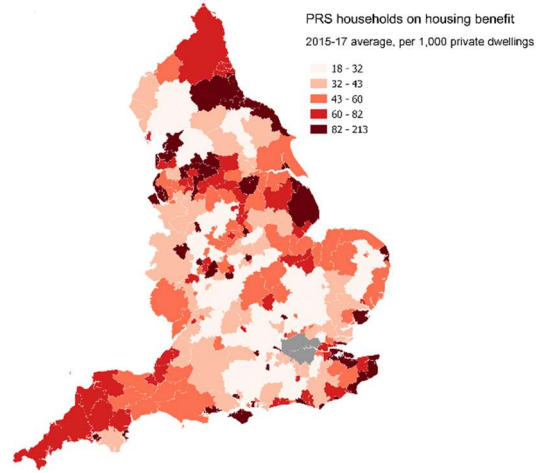
AR4: Mean weekly Housing Benefit Award in PRS
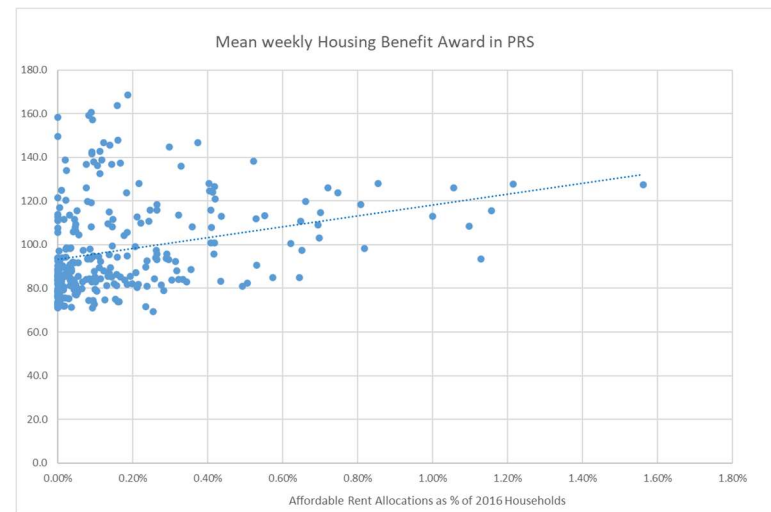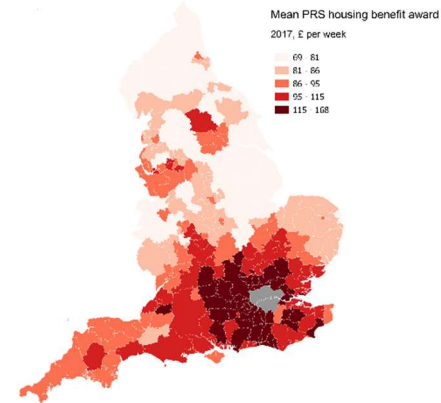
AR5: Absolute rent difference between affordable rent and PRS rent		
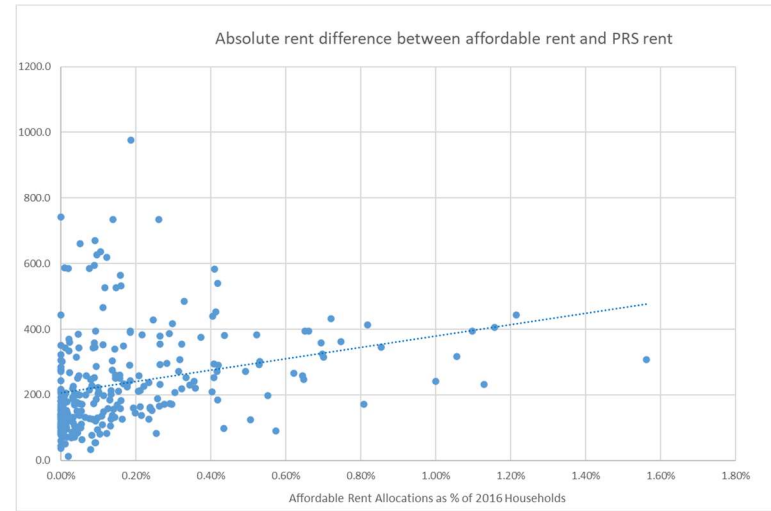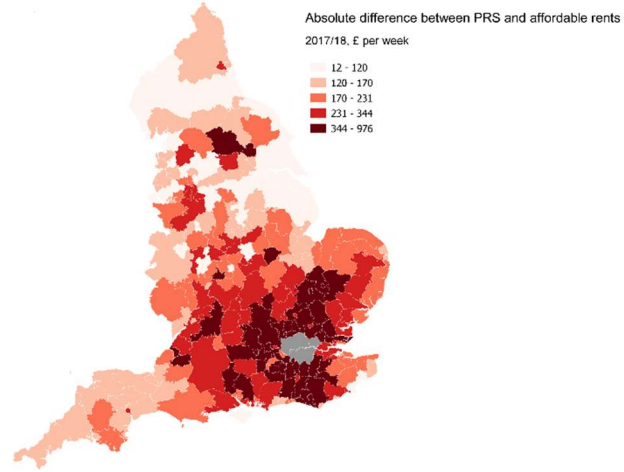
Approach B

D.4 The tables below present data that compares the spatial distribution of CME grant-funded and nil-grant completions and allocations by March 2021 against each of the relevant Measures of Relative Affordable Housing Need by decile.

D.5 For each set of data (related to grant-funded/nil-grant and completions/allocations respectively) the following are set out

- first, a map of the overall distribution for that relevant category (absolutely)

- second, the findings of the decile analysis, by placing local authority districts across England (outside London) into ten groups/deciles of 'need' for each measure (e.g. the 10% of local authority districts with the highest ratio/level, the 10% with the next highest ratio/level etc.) and comparing this to the proportion of completions/allocations in those local authority districts.

D.6 The table under each map highlights where for each decile the variation from 10% of completions in that decile is +/- 2.5%:

- green where 12.5% or more of completions are in the decile

- orange where 7.5% or less of completions are in that decile

Grant funded <u>COMPLETIONS</u>

	Affordable Home Ownership

Grant-funded CME programme completions
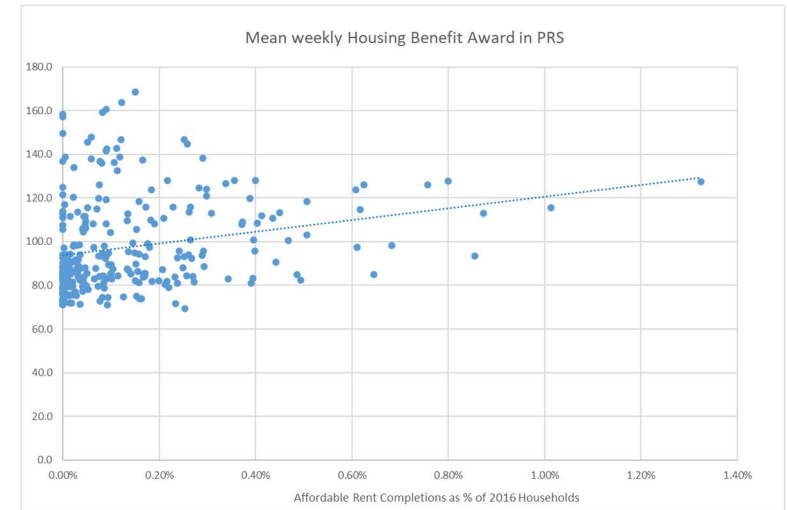Affordable Home Ownership

- 0 - 9
- 9 - 26
- 26 - 46
- 46 - 78
- 78 - 636
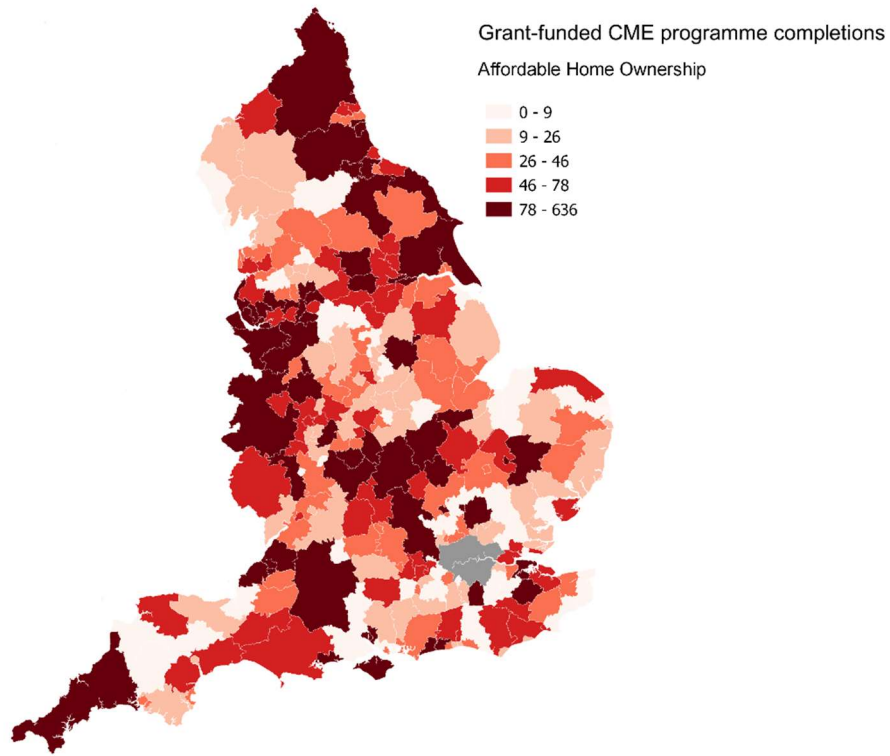
	AHO1: Ratio of median house prices to median workplace-based earnings	AHO2: Ratio of lower quartile house prices to lower quartile workplace-based earnings	AHO3: Growth in PRS post financial crisis	AHO4: Rent to earnings ratio	AHO5: FTB house prices relative to all	AHO6: H2B completions per 1000 households
1st decile - lowest	15%	14%	12%	8%	7%	4%
2nd decile	14%	16%	10%	15%	8%	7%
3rd decile	10%	11%	9%	8%	10%	7%
4th decile	10%	12%	15%	14%	13%	8%
5th decile	11%	8%	8%	14%	11%	12%
6th decile	10%	11%	9%	11%	9%	11%
7th decile	10%	10%	6%	8%	10%	14%
8th decile	9%	8%	12%	7%	12%	16%
9th decile	6%	5%	11%	9%	10%	11%
10th decile - highest	5%	6%	7%	5%	11%	10%

Affordable Rent

Grant-funded CME programme completions

Affordable Rent

- Zero
- 1 - 13
- 13 - 35
- 35 - 101
- 101 - 640

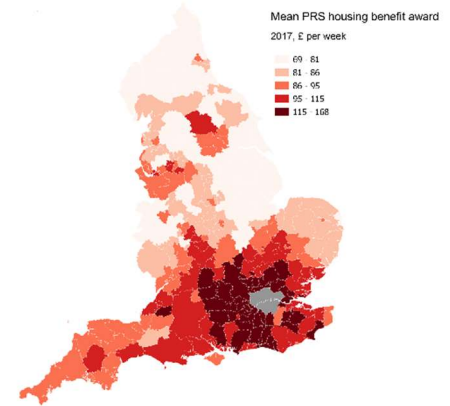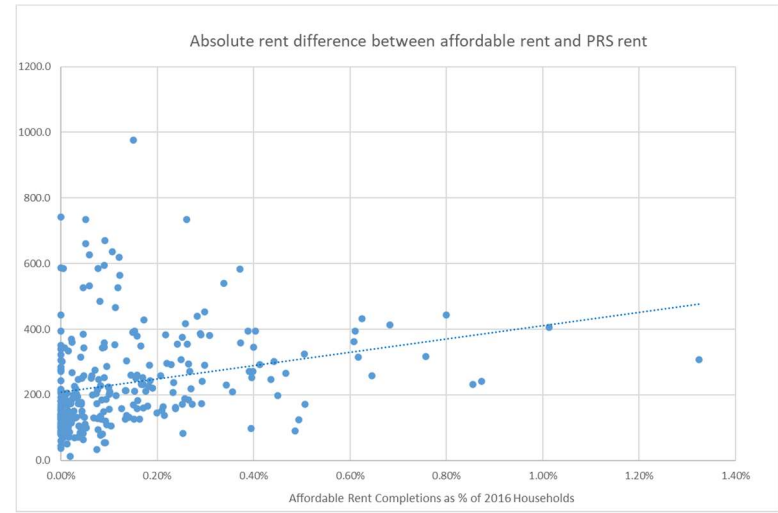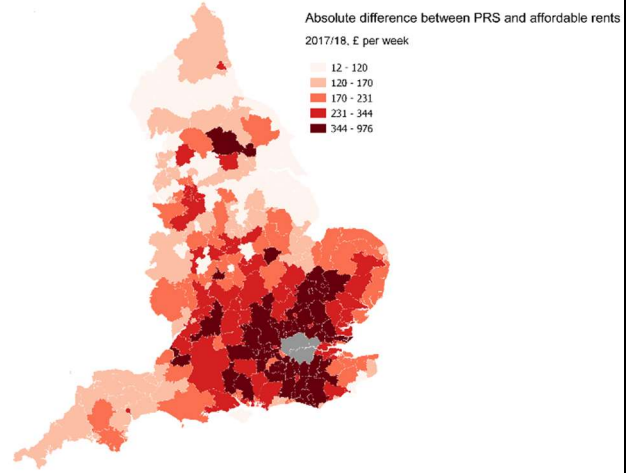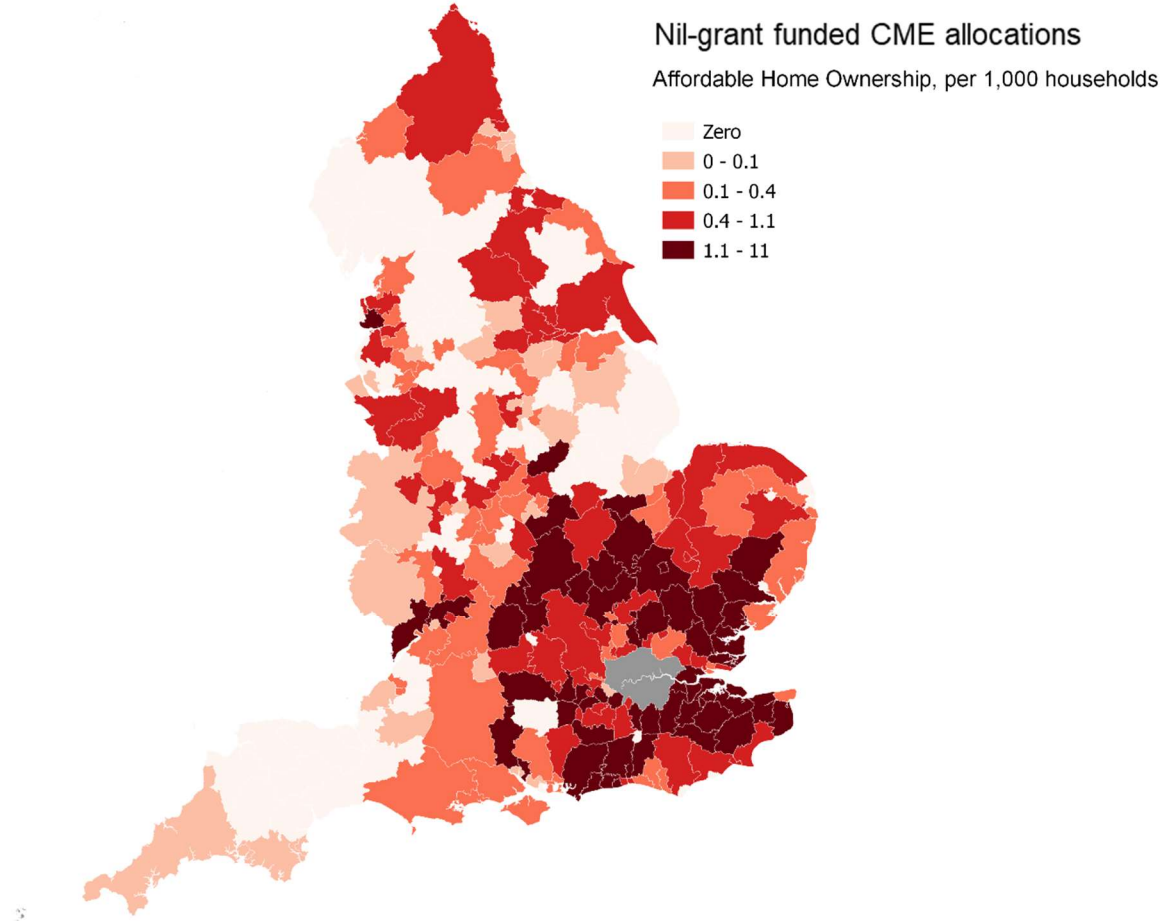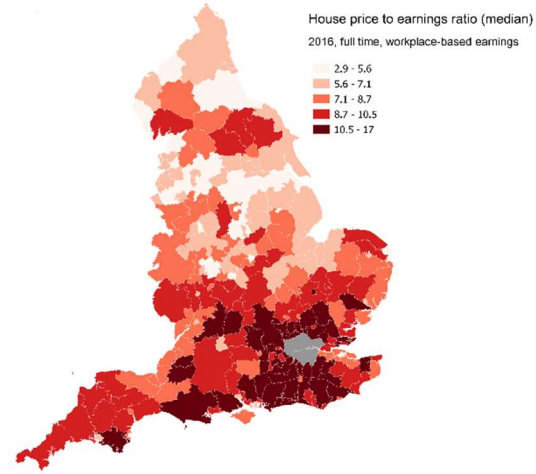|	AR1: Ratio of median PRS rents to median monthly workplace-based earnings	AR2: Ratio of lower quartile monthly PRS rents to lower quartile monthly workplace based earnings	AR3: PRS households on Housing Benefit per 1,000 private sector dwellings	AR4: Mean weekly Housing Benefit Award in PRS	AR5: Absolute rent difference between affordable rent and PRS rent
1st decile - lowest	21%	22%	2%	16%	24%
2nd decile	22%	17%	6%	20%	22%
3rd decile	15%	16%	4%	10%	12%
4th decile	12%	13%	7%	10%	7%
5th decile	7%	11%	5%	14%	10%
6th decile	7%	6%	14%	13%	5%
7th decile	6%	6%	10%	8%	5%
8th decile	3%	3%	13%	3%	7%
9th decile	5%	4%	21%	4%	3%
10th decile - highest	2%	2%	18%	2%	4%

Social Rent

	SR1: Households on Local Authority housing waiting lists per 1,000 households	SR2: Households assessed as threatened with homelessness per 1,000 households	SR3: Households assessed as homeless per 1,000 households	SR4: Households in Temporary Accommodation per 1,000 households	SR5: Absolute rent difference between social rent and affordable rent
1st decile - lowest	12%	6%	2%	13%	6%
2nd decile	1%	8%	12%	5%	13%
3rd decile	7%	4%	11%	8%	17%
4th decile	11%	7%	10%	10%	24%
5th decile	13%	22%	5%	26%	7%
6th decile	15%	13%	17%	6%	7%
7th decile	12%	16%	16%	13%	14%
8th decile	9%	7%	1%	12%	7%
9th decile	9%	15%	12%	3%	2%
10th decile - highest	10%	2%	15%	3%	2%

Grant funded ALLOCATIONS

Affordable Home Ownership

Grant-funded CME programme allocations
Affordable Home Ownership

0 - 16
16 - 42
42 - 73
73 - 141
141 - 1039

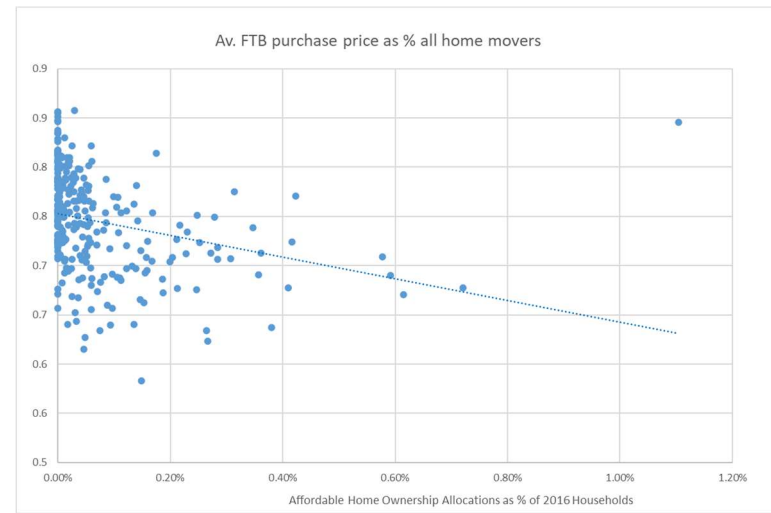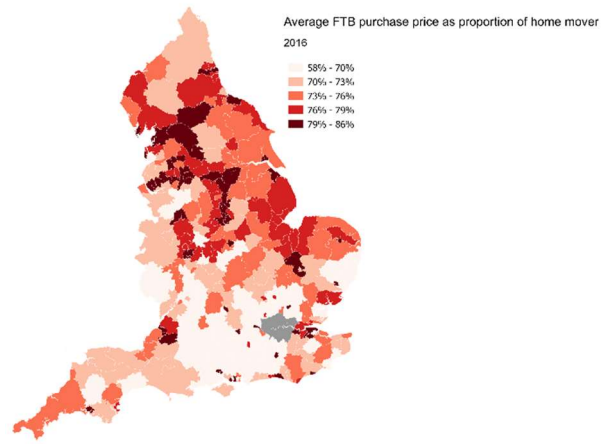|	Ratio of median house prices to median workplace-based earnings (affordability ratio)	Ratio of lower quartile house prices to median workplace-based earnings (affordability ratio)	Growth in PRS post financial crisis	Rent to earnings ratio	FTB house prices relative to all (growth and level)	H2B completions per 1000 households
1st decile - lowest	16%	13%	11%	9%	7%	6%
2nd decile	13%	16%	12%	13%	7%	8%
3rd decile	8%	9%	10%	10%	10%	7%
4th decile	9%	12%	14%	11%	13%	10%
5th decile	11%	9%	8%	13%	12%	10%
6th decile	12%	11%	10%	11%	8%	11%
7th decile	9%	9%	7%	9%	9%	14%
8th decile	8%	10%	12%	10%	10%	15%
9th decile	9%	7%	9%	8%	11%	9%
10th decile - highest	4%	5%	8%	6%	12%	10%

|	Ratio of median PRS rents to median monthly workplace-based earnings	Ratio of lower quartile monthly PRS rents to lower quartile monthly work-place based earnings	PRS households on Housing Benefit per 1,000 private sector dwellings	Mean weekly Housing Benefit Award in PRS	Absolute rent difference between affordable rent and PRS rent
1st decile - lowest	21%	21%	2%	13%	25%
2nd decile	22%	19%	6%	20%	21%
3rd decile	14%	16%	4%	11%	12%
4th decile	14%	14%	7%	11%	8%
5th decile	6%	10%	6%	15%	10%
6th decile	7%	5%	14%	14%	5%
7th decile	5%	5%	10%	6%	5%
8th decile	4%	3%	11%	3%	6%
9th decile	4%	3%	20%	4%	3%
10th decile - highest	3%	3%	19%	3%	4%

Social Rent
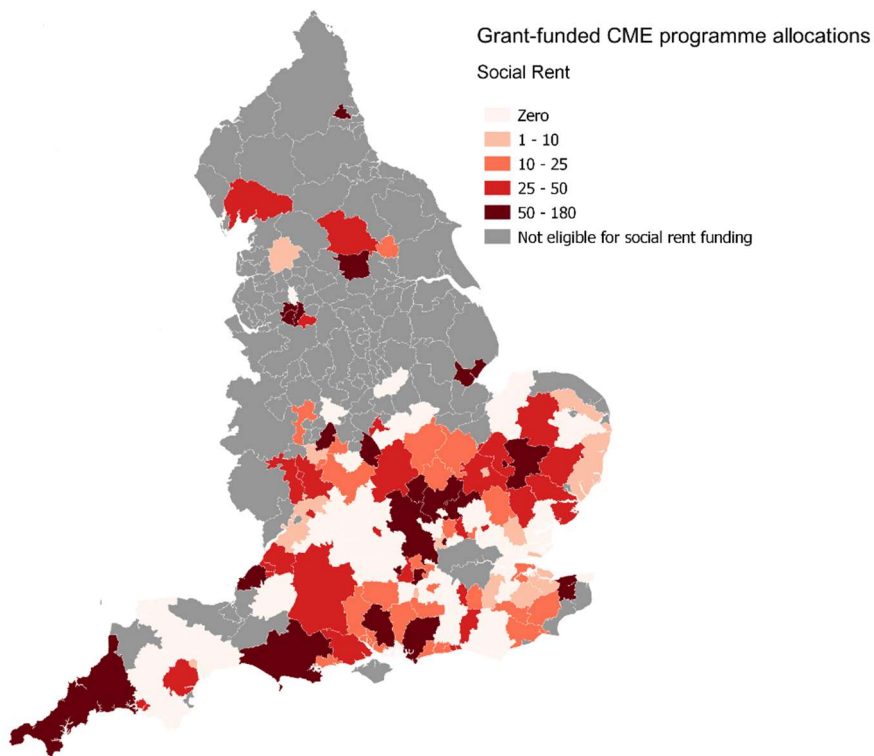
Grant-funded CME programme allocations

Social Rent

- Zero
- 1 - 10
- 10 - 25
- 25 - 50
- 50 - 180
- Not eligible for social rent funding

	Households on Local Authority housing waiting lists per 1,000 households	Households assessed as threatened with homelessness per 1,000 households	Households assessed as homeless per 1,000 households	Households in Temporary Accommodation per 1,000 households	Absolute rent difference between social rent and affordable rent
1st decile - lowest	8%	6%	3%	9%	9%
2nd decile	4%	11%	8%	5%	11%
3rd decile	11%	11%	9%	5%	14%
4th decile	10%	8%	12%	13%	15%
5th decile	11%	10%	6%	19%	13%
6th decile	8%	11%	17%	11%	7%
7th decile	10%	12%	7%	6%	10%
8th decile	11%	13%	5%	10%	10%
9th decile	14%	12%	17%	13%	8%
10th decile - highest	12%	7%	14%	9%	3%

Nil-grant COMPLETIONS

Affordable Home Ownership

Nil-grant funded CME completions
Affordable Home Ownership

Zero
1 - 6
6 - 19
19 - 53
53 - 602

	Ratio of median house prices to median workplace-based earnings (affordability ratio)	Ratio of lower quartile house prices to lower quartile workplace-based earnings (affordability ratio)	Growth in PRS post financial crisis	Rent to earnings ratio	FTB house prices relative to all (growth and level)	H2B completions per 1000 households
1st decile - lowest	2%	2%	4%	3%	15%	7%
2nd decile	4%	4%	4%	3%	17%	7%
3rd decile	3%	4%	6%	4%	21%	7%
4th decile	6%	6%	5%	9%	9%	12%
5th decile	11%	5%	7%	5%	10%	6%
6th decile	14%	16%	8%	10%	7%	7%
7th decile	12%	11%	11%	9%	7%	10%
8th decile	15%	13%	15%	24%	4%	8%
9th decile	15%	22%	14%	18%	4%	11%
10th decile - highest	17%	17%	26%	15%	5%	26%

Affordable Rent

Nil-grant funded CME completions

Affordable Rent

- 0 - 3
- 3 - 30
- 30 - 56
- 56 - 122
- 122 - 804

	Ratio of median PRS rents to median monthly workplace-based earnings	Ratio of lower quartile monthly PRS rents to lower quartile monthly work-place based earnings	PRS households on Housing Benefit per 1,000 private sector dwellings	Mean weekly Housing Benefit Award in PRS	Absolute rent difference between affordable rent and PRS rent
1st decile - lowest	4%	5%	18%	4%	4%
2nd decile	6%	5%	17%	5%	5%
3rd decile	3%	3%	16%	8%	6%
4th decile	9%	7%	11%	7%	5%
5th decile	8%	7%	9%	5%	8%
6th decile	9%	11%	9%	10%	8%
7th decile	18%	14%	7%	18%	15%
8th decile	13%	19%	5%	13%	20%
9th decile	21%	21%	5%	23%	17%
10th decile - highest	8%	8%	3%	6%	12%

Nil-grant ALLOCATIONS

Affordable Home Ownership

Nil-grant funded CME allocations
Affordable Home Ownership

Zero
0 - 7
7 - 21
21 - 68
68 - 638

	Ratio of median house prices to median workplace-based earnings (affordability ratio)	Ratio of lower quartile house prices to median workplace-based earnings (affordability ratio)	Growth in PRS post financial crisis	Rent to earnings ratio	FTB house prices relative to all (growth and level)	H2B completions per 1000 households
1st decile - lowest	2%	2%	4%	2%	16%	7%
2nd decile	4%	4%	4%	3%	17%	7%
3rd decile	3%	3%	7%	4%	19%	8%
4th decile	5%	5%	4%	8%	10%	12%
5th decile	10%	5%	7%	4%	10%	5%
6th decile	17%	15%	9%	11%	7%	6%
7th decile	12%	13%	11%	10%	7%	11%
8th decile	16%	14%	14%	26%	4%	8%
9th decile	15%	21%	14%	18%	3%	10%
10th decile - highest	17%	18%	27%	15%	7%	26%

Affordable Rent

Nil-grant funded CME allocations

Affordable Rent

- 0 - 5
- 5 - 32
- 32 - 65
- 65 - 162
- 162 - 876

	Ratio of median PRS rents to median monthly workplace-based earnings	Ratio of lower quartile monthly PRS rents to lower quartile monthly work-place based earnings	PRS households on Housing Benefit per 1,000 private sector dwellings	Mean weekly Housing Benefit Award in PRS	Absolute rent difference between affordable rent and PRS rent
1st decile - lowest	3%	5%	18%	4%	4%
2nd decile	6%	5%	18%	4%	4%
3rd decile	3%	3%	16%	7%	5%
4th decile	8%	7%	11%	6%	5%
5th decile	8%	7%	9%	5%	8%
6th decile	8%	10%	8%	10%	8%
7th decile	17%	14%	8%	17%	15%
8th decile	15%	19%	5%	15%	19%
9th decile	23%	23%	5%	24%	19%
10th decile - highest	9%	8%	3%	8%	14%

Annex E: Further detail on econometric analysis

Brief description of the method

E.1 We carried out exploratory econometric analysis which was used to provide additional insight into whether SOAHP has delivered the 'right' homes in the 'right' places. The econometric analysis investigated whether there was a statistically significant relationship between housing completions delivered through SOAHP (and allocations to be delivered in the future) and the tenure-specific Measures of Relative Affordable Housing Need set out in the main body of the report. The models also included additional variables accounting for wider context in local authorities.

E.2 Table E-1 presents summary statistics for the variables that were included in the final specifications of our econometric models. Two points are worth noting: First, preliminary analysis indicated high levels or correlation between Measures of Relative Affordable Housing Need. To increase precision of our models, only a subset of 'closely related' variables was used. Intuitively, if two very similar variables (both of which have a statistical relationship with SOAHP delivery) are included in the model, estimation methods will struggle to attribute the effect to either one of them.

E.3 Second, to limit the influence of potential reverse causality (i.e. the fact that SOAHP completions and/or allocation may have an impact on contemporaneous values of indicators of need) the models were based on: a) a 2016 'affordability snapshot' for Affordable Home Ownership; b) a 2017 'snapshot' for Affordable Rent; and c) 2018 for Social Rent. These snapshots reflected the point at which each of the tenures could be first supported by SOAHP. For the variables that are specified in Table E-1 as averages over a period of time the average was taken over the three years before the relevant 'snapshot' year.

Table E-1: Summary statistics for dependent variables in econometric analysis

	Mean	Median	Std. Dev.
Affordable Home Ownership			
Completions (per 1,000 households)	0.79	0.62	0.73
Allocation (per 1,000 households)	1.36	1.02	1.25
Home ownership (%)	66.58	67.69	6.81
% economically active population (16-64)	79.44	79.50	4.45
Green belt (ha)	5701.08	1392.85	8841.25
Ratio of lower quartile house prices to lower quartile workplace-based earnings (AHO2)	8.37	8.31	2.84
FTB house prices relative to all (AHO5)	0.74	0.74	0.05
Help to Buy completions (AHO6)	1.36	1.19	1.01
Growth in PRS (AHO3)	8.95	8.87	1.77

	Mean	Median	Std. Dev.
Affordable Rent			
Completions (per 1,000 households)	0.82	0.38	1.11
Allocation (per 1,000 households)	1.57	0.92	1.75
Home ownership (%)	66.96	68.02	6.65
% economically active population (16-64)	79.78	79.50	4.68
Green belt (ha)	5678.73	1348.07	8828.38
Ratio of lower quartile monthly PRS rents to lower quartile monthly work-place based earnings (AR2)	0.34	0.33	0.07
PRS households on Housing Benefit (AR3)	57.31	48.46	29.28
Social Rent			
Completions (per 1,000 households)	0.05	0.00	0.16
Allocation (per 1,000 households)	0.19	0.00	0.42
Home ownership (%)	67.32	68.33	6.54
% economically active population (16-64)	80.52	80.70	5.04
Green belt (ha)	5678.73	1348.07	8828.38
Households on local authority housing waiting lists (SR1)	42.48	35.93	30.16
Households assessed as homeless (SR3)	4.72	4.15	2.75
Households assessed as threatened with homelessness (SR2)	5.85	5.05	2.93
Households in temporary accommodation (SR4)	1.22	0.54	1.93
Absolute rent difference between social rent & affordable rent (SR5)	36.72	27.60	25.33
Urban vs rural (%, all models)			
Largely Rural	14.07		
Mainly Rural	16.30		
Urban with City and Town	31.11		
Urban with Major Conurbation	14.81		
Urban with Minor Conurbation	3.33		
Urban with Significant Rural	20.37		

Source: SQW

E.4 An initial review of monitoring data indicated that there could be spatial interdependencies between SOAHP investments (i.e., SOAHP investment in one local authority may influence the nature of SOAHP investment in another local authority nearby). To account for this, we used spatial econometrics techniques that allowed us to relax the standard assumption of regional independence (where this was necessary).

E.5 The general form of the models used for all three tenures was as follows:

$$y_i = \beta X_i + \rho W y + u_i, \qquad u_i = \lambda W u + \varepsilon_i,$$

where

- y_i is the number of completed or allocated units for Affordable Home Ownership, Affordable Rent or Social Rent in local authority i (per 1,000 households, to account for differences in population across local authorities)

- X_i is a set of characteristics reflecting housing need in local authority district i in relevant 'snapshot' year

- Wy is a 'spatial lag' i.e. an element that reflects the influence of SOAHP delivery in neighbouring areas on completions in local authority district i. W is a spatial weight matrix which provides the structure of spatial relationship among observations i.e. it defines which observations are considered to be 'neighbours' and may affect each other

- u_i and ε_i are error terms, with Wu being the spatial error term capturing spatial correlations between local authorities. In other words, if the model explains outcomes in local authority i poorly or particularly well, it may also do so for the neighbouring areas.

E.6 In our analysis we adopted an iterative approach. For each tenure we implemented a series of tests to determine: a) whether spatial effects were likely to be present (Moran I test); b) whether a spatial lag, spatial error or both were present (using a set of LM tests); and c) whether any unaccounted spatial correlations remained present in the data after initial corrections were implemented. Table E-2 summarises our findings in relation to spatial effects observed in the data.

E.7 In cases where the data suggested no spatial relationships we estimated the model presented above with ρ and λ set to 0, using the Ordinary Least Squares (OLS) estimator. Models with a spatial lag (SL) i.e. where $\rho \neq 0$, were estimated using a Maximum Likelihood estimator. Models with both spatial lag and error (SL+SE), i.e. where $\rho \neq 0$ and $\lambda \neq 0$, were estimated using the Generalised Method of Moments (GMM). Econometric analysis was carried out in R, a specialist statistical software.

Table E-2: Spatial effects, summary of models used for final analysis

Tenure	Spatial effect
Affordable Home Ownership	Spatial lag vs no spatial effects depending on the definition of 'neighbouring' local authorities (common boundaries vs distance between geographical centres)
Affordable Rent	Spatial lag
Social Rent	No spatial effects

Source: SQW

E.8 It is important to note this type of analysis does not tell us what set of local authorities should be considered to be neighbours. Rather it takes a definition as given and tests whether any spatial patterns can be observed using this definition. For this reason it was important to use

complementary alternative definitions of 'neighbours' and check that results were robust to changes in the criteria.

E.9 Figure E-1 shows two alternative definitions of neighbouring local authorities we used in our analysis. They produce substantially different sets of 'spatially close' local authorities. The first criteria identified two local authorities as neighbours if they shared a boundary. The second criteria identified them as neighbours if the distance between their geographical centres was less than 60 km.[1] Results of our analysis are broadly consistent across models that used either definition.

Figure E-1: Neighbouring local authorities: common boundaries vs distance between geographical centres
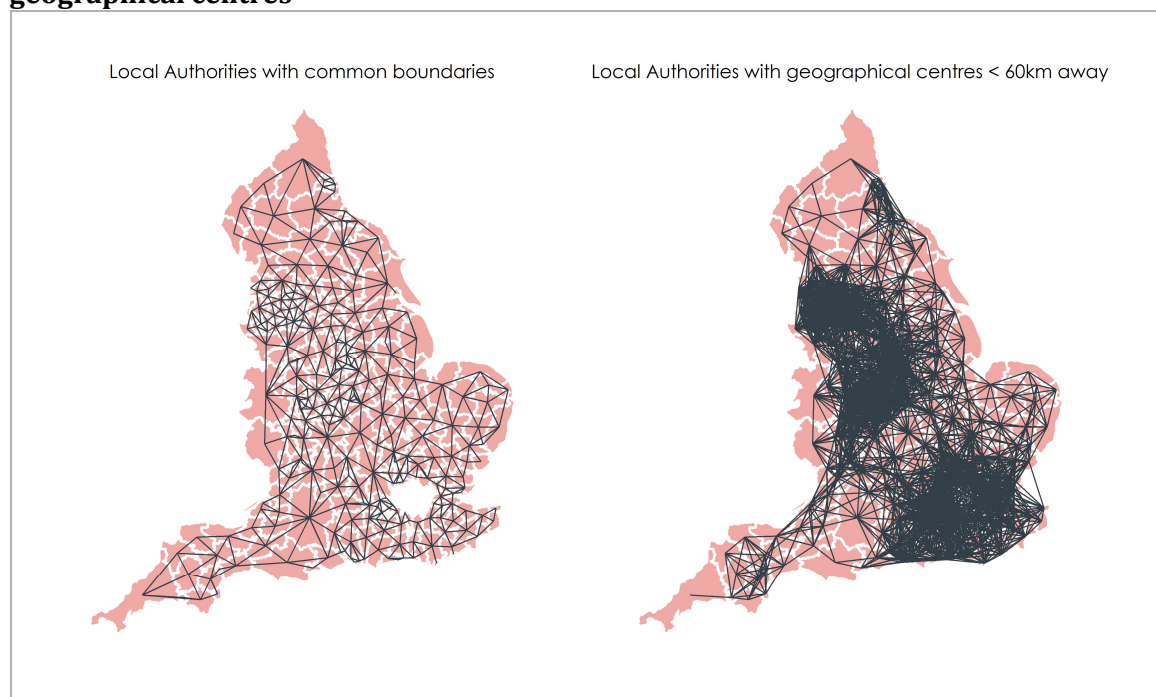
Source: SQW

Estimation outputs

E.10 Table E-3 - Table E-15 present estimation outputs from econometric models for: a) all three tenures; b) completions and allocations for each tenure; and c) using both spatial matrices (definitions of neighbours) as discussed above. For models that included a spatial lag we also present estimated combined effect of statistically significant variables considering both the direct effect a variable has in a local authority and the indirect effect it has on a local authority through its neighbours. In other words, these estimates take into account 'spatial spillovers'.

[1] The 60km threshold was chosen to ensure all mainland local authorities had at least one neighbour.

Estimation outputs: Affordable Home Ownership

Table E-3: Estimation output for Affordable Home Ownership completions. OLS

Model: OLS	Coef.	St. Err.	T-stat	P-value
Intercept	2.53	1.29	1.96	0.05
Home ownership	0.00	0.01	-0.49	0.62
Economically active population (16-64)	0.00	0.01	0.18	0.86
Green belt	0.00	0.00	1.94	0.05
Rural vs urban (base: Largely Rural)				
Mainly Rural	0.01	0.14	0.08	0.93
Urban with City and Town	-0.09	0.13	-0.70	0.49
Urban with Major Conurbation	-0.09	0.15	-0.59	0.56
Urban with Minor Conurbation	-0.45	0.25	-1.79	0.07
Urban with Significant Rural	-0.06	0.13	-0.49	0.63
Affordability ratio (AHO2)	-0.05	0.02	-2.41	0.02
FTB house prices	-1.76	1.12	-1.57	0.12
Help to Buy completions	0.14	0.05	2.57	0.01
Growth in PRS	-0.02	0.03	-0.50	0.61
Moran I (common boundaries)	2.73			0.01
Moran I (distance)	0.48			0.63

Note: two local authorities were excluded as outliers (Stevenage and Hambleton).[2] Source: SQW

Table E-4: Estimation output for Affordable Home Ownership completions. Spatial lag and error term model, boundaries spatial matrix

Model: SL+SE	Coef.	St. Err.	T-stat	P-value
Intercept	0.61	1.02	0.61	0.54
Home ownership	0.00	0.01	-0.04	0.97
Economically active population (16-64)	0.00	0.01	-0.17	0.87
Green belt	0.00	0.00	1.24	0.22
Rural vs urban (base: Largely Rural)				
Mainly Rural	-0.02	0.11	-0.14	0.89
Urban with City and Town	-0.05	0.09	-0.54	0.59
Urban with Major Conurbation	-0.09	0.11	-0.88	0.38
Urban with Minor Conurbation	-0.18	0.19	-0.95	0.34
Urban with Significant Rural	-0.09	0.10	-0.93	0.35

[2] Outliers were defined as local authorities associated with the error term exceeding in its absolute value five standard deviations observed in the sample.

Model: SL+SE	Coef.	St. Err.	T-stat	P-value
Affordability ratio (AHO2)	0.00	0.01	0.19	0.85
FTB house prices	-0.75	0.82	-0.92	0.36
Help to Buy completions	0.09	0.04	2.21	0.03
Growth in PRS	-0.01	0.02	-0.28	0.78
ρ	0.98	0.11	8.57	0.00
λ	-0.74			

Note: two local authorities were excluded as outliers (Stevenage and Hambleton). Source: SQW

Table E-5: Estimated impact coefficient on Help to Buy completions for Affordable Home Ownership completions taking into account spatial spillovers. Spatial lag and error term model, boundaries spatial matrix

Model: SL+SE	Direct	Indirect	Total
Help to Buy completions	0.20	4.64	4.84

Note: two local authorities were excluded as outliers (Stevenage and Hambleton). Source: SQW

Table E-6: Estimation output for Affordable Home Ownership allocations. OLS

Model: OLS	Coef.	St. Err.	T-stat	P-value
Intercept	-0.40	2.47	-0.16	0.87
Home ownership	0.00	0.01	-0.03	0.97
Economically active population (16-64)	0.02	0.02	0.97	0.33
Green belt	0.00	0.00	0.13	0.89
Rural vs urban (base: Largely Rural)				
Mainly Rural	-0.17	0.27	-0.62	0.54
Urban with City and Town	-0.45	0.25	-1.81	0.07
Urban with Major Conurbation	0.10	0.29	0.35	0.72
Urban with Minor Conurbation	-0.94	0.47	-1.97	0.05
Urban with Significant Rural	-0.37	0.25	-1.47	0.14
Affordability ratio (AHO2)	-0.05	0.04	-1.34	0.18
FTB house prices	0.45	2.15	0.21	0.83
Help to Buy completions	-0.01	0.10	-0.07	0.94
Growth in PRS	0.07	0.06	1.04	0.30
Moran I (common boundaries)	2.82			0.00
Moran I (distance)	-0.07			0.94

Note: four local authorities were excluded as outliers (Stevenage, Hambleton, Spelthorne and Craven). Source: SQW

Table E-7: Estimation output for Affordable Home Ownership allocations. Spatial lag model, boundaries spatial matrix

Model: SL	Coef.	St. Err.	T-stat	P-value
Intercept	-1.18	2.38	-0.49	0.62
Home ownership	0.00	0.01	0.05	0.96
Economically active population (16-64)	0.02	0.02	0.97	0.33
Green belt	0.00	0.00	0.06	0.95
Rural vs urban (base: Largely Rural)				
Mainly Rural	-0.16	0.26	-0.60	0.55
Urban with City and Town	-0.46	0.24	-1.92	0.06
Urban with Major Conurbation	0.05	0.28	0.19	0.85
Urban with Minor Conurbation	-0.85	0.46	-1.87	0.06
Urban with Significant Rural	-0.39	0.25	-1.59	0.11
Affordability ratio (AHO2)	-0.04	0.03	-1.02	0.31
FTB house prices	0.90	2.07	0.44	0.66
Help to Buy completions	-0.02	0.10	-0.18	0.85
Growth in PRS	0.07	0.06	1.22	0.22
ρ	0.20	0.08	2.33	0.02
LM test for no remaining spatial autocorrelation in residuals	0.00			0.96

Note: four local authorities were excluded as outliers (Stevenage, Hambleton, Spelthorne and Craven). Source: SQW

Table E-8: Estimated coefficient on Rural vs Urban status for Affordable Home Ownership allocation, taking into account spatial spillovers. Spatial lag model, boundaries spatial matrix

	Direct	Indirect	Total
Base: Largely Rural			
Urban with City and Town	-0.11	-2.61	-2.73
Urban with Minor Conurbation	-0.40	-9.14	-9.53

Note: two local authorities were excluded as outliers (Stevenage and Hambleton). Source: SQW

Estimation outputs: Affordable Rent

Table E-9: Estimation output for Affordable Rent completions. Spatial lag model, boundaries spatial matrix

Model: SL	Coef.	St. Err.	T-stat	P-value
Intercept	2.44	1.29	1.88	0.06
Home ownership	-0.01	0.01	-1.22	0.22
Economically active population (16-64)	0.00	0.01	-0.32	0.75
Green belt	0.00	0.00	-0.60	0.55
Rural vs urban (base: Largely Rural)				
Mainly Rural	-0.07	0.19	-0.34	0.73
Urban with City and Town	-0.06	0.17	-0.36	0.72
Urban with Major Conurbation	0.27	0.20	1.33	0.18
Urban with Minor Conurbation	0.00	0.32	-0.01	1.00
Urban with Significant Rural	0.27	0.18	1.54	0.12
Affordability Ratio, AR2	-2.57	0.83	-3.09	0.00
PRS households on Housing Benefits	0.00	0.00	0.15	0.88
ρ	0.42	0.07	5.96	0.00
LM test for no remaining spatial autocorrelation in residuals	0.03			0.86

Note: two local authorities were excluded as outliers (Burnley and Tamworth). Source: SQW

Table E-10: Estimation output for Affordable Rent completions. Spatial lag model, distance spatial matrix

Model: SL	Coef.	St. Err.	T-stat	P-value
Intercept	2.10	1.37	1.54	0.12
Home ownership	-0.01	0.01	-0.79	0.43
Economically active population (16-64)	0.00	0.01	-0.20	0.84
Green belt	0.00	0.00	-0.67	0.50
Rural vs urban (base: Largely Rural)				
Mainly Rural	-0.10	0.20	-0.52	0.60
Urban with City and Town	-0.07	0.18	-0.36	0.72
Urban with Major Conurbation	0.22	0.21	1.02	0.31
Urban with Minor Conurbation	0.01	0.34	0.02	0.98
Urban with Significant Rural	0.26	0.19	1.40	0.16
Affordability Ratio, AR2	-2.82	0.95	-2.98	0.00
PRS households on Housing Benefits	0.00	0.00	0.45	0.66
ρ	0.43	0.12	3.62	0.00

Model: SL	Coef.	St. Err.	T-stat	P-value
LM test for no remaining spatial autocorrelation in residuals	0.55			0.46

Note: two local authorities were excluded as outliers (Burnley and Tamworth). Source: SQW

Table E-11: Estimation output for Affordable Rent allocation. Spatial lag model, boundaries spatial matrix

Model: SL	Coef.	St. Err.	T-stat	P-value
Intercept	2.44	1.29	1.88	0.06
Home ownership	-0.01	0.01	-1.22	0.22
Economically active population (16-64)	0.00	0.01	-0.32	0.75
Green belt	0.00	0.00	-0.60	0.55
Rural vs urban (base: Largely Rural)				
Mainly Rural	-0.07	0.19	-0.34	0.73
Urban with City and Town	-0.06	0.17	-0.36	0.72
Urban with Major Conurbation	0.27	0.20	1.33	0.18
Urban with Minor Conurbation	0.00	0.32	-0.01	1.00
Urban with Significant Rural	0.27	0.18	1.54	0.12
Affordability Ratio, AR2	-2.57	0.83	-3.09	0.00
PRS households on Housing Benefits	0.00	0.00	0.15	0.88
ρ	0.42	0.07	5.96	0.00
LM test for no remaining spatial autocorrelation in residuals	0.03			0.86

Note: two local authorities were excluded as outliers (Burnley and Tamworth). Source: SQW

Table E-12: Estimation output for Affordable Rent allocation. Spatial lag model, distance spatial matrix

	Coef.	St. Err.	T-stat	P-value
Intercept	2.10	1.37	1.54	0.12
Home ownership	-0.01	0.01	-0.79	0.43
Economically active population (16-64)	0.00	0.01	-0.20	0.84
Green belt	0.00	0.00	-0.67	0.50
Rural vs urban (base: Largely Rural)				
Mainly Rural	-0.10	0.20	-0.52	0.60
Urban with City and Town	-0.07	0.18	-0.36	0.72
Urban with Major Conurbation	0.22	0.21	1.02	0.31
Urban with Minor Conurbation	0.01	0.34	0.02	0.98
Urban with Significant Rural	0.26	0.19	1.40	0.16
Affordability Ratio, AR2	-2.82	0.95	-2.98	0.00

	Coef.	St. Err.	T-stat	P-value
PRS households on Housing Benefits	0.00	0.00	0.45	0.66
ρ	0.43	0.12	3.62	0.00
LM test for no remaining spatial autocorrelation in residuals	0.55			0.46

Note: local authorities were excluded as outliers (Burnley and Tamworth). Source: SQW

Table E-13: Estimated coefficients on Affordability Ratio (AR2) for Affordable Rent taking into account spatial spillovers. Spatial lag models

	Direct	Indirect	Total
Completions: boundaries spatial matrix	-2.68	-1.77	-4.45
Completions: distance spatial matrix	-2.86	-2.12	-4.98
Allocation: boundaries spatial matrix	-2.68	-1.77	-4.45
Allocation: distance spatial matrix	-2.86	-2.12	-4.98

Note: two local authorities were excluded as outliers (Burnley and Tamworth). Source: SQW

Estimation outputs: Social Rent

Table E-14: Estimation output for Social Rent completions. OLS

Model: OLS	Coef.	St. Err.	T-stat	P-value
Intercept	-0.16	0.21	-0.77	0.44
Home ownership	0.00	0.00	-0.98	0.33
Economically active population (16-64)	0.00	0.00	1.76	0.08
Green belt	0.00	0.00	0.90	0.37
Rural vs urban (base: Largely Rural)				
Mainly Rural	0.00	0.04	-0.10	0.92
Urban with City and Town	0.01	0.03	0.19	0.85
Urban with Major Conurbation	0.00	0.04	-0.05	0.96
Urban with Minor Conurbation	-0.04	0.06	-0.63	0.53
Urban with Significant Rural	0.07	0.03	2.02	0.04
Housing waiting lists	0.00	0.00	-0.73	0.47
Homeless	0.00	0.00	0.87	0.39
Threatened with homelessness	0.00	0.00	-0.75	0.45
Temporary accommodation	0.00	0.01	-0.27	0.79
Affordable vs social rent difference	0.00	0.00	0.36	0.72
Moran I (common boundaries)	1.43			0.15
Moran I (distance)	-0.52			0.60

Source: SQW

Table E-15: Estimation output for Social Rent allocation. OLS

Model: OLS	Coef.	St. Err.	T-stat	P-value
Intercept	-0.23	0.52	-0.45	0.65
Home ownership	-0.01	0.01	-2.25	0.03
Economically active population (16-64)	0.02	0.01	2.79	0.01
Green belt	0.00	0.00	0.60	0.55
Rural vs urban (base: Largely Rural)				
Mainly Rural	-0.08	0.09	-0.84	0.40
Urban with City and Town	-0.08	0.09	-0.92	0.36
Urban with Major Conurbation	-0.12	0.10	-1.23	0.22
Urban with Minor Conurbation	-0.24	0.16	-1.51	0.13
Urban with Significant Rural	-0.10	0.09	-1.14	0.26
Housing waiting lists	0.00	0.00	-0.83	0.40
Homeless	0.00	0.01	0.31	0.76
Threatened with homelessness	-0.02	0.01	-1.94	0.05
Temporary accommodation	0.02	0.02	1.27	0.21
Affordable vs social rent difference	0.00	0.00	1.62	0.11
Moran I (common boundaries)	1.04			0.30
Moran I (distance)	-1.09			0.28

Source: SQW

Annex F: CME survey quotation examples

Direct benefits of grant-funded schemes to people and places

"We have been able to build bespoke units to meet the needs of children with complex needs and their families as well as to meet the needs of other residents … through the development of family homes which are accessible and adaptable and therefore will meet residents' future need."

"Provided house types that were in short supply in the localities, allowing customers to live nearer family and friends. Provided modern energy efficient homes, leading to better quality of life."

"Our schemes enable local people to remain within their communities, who could not otherwise afford to do so. As well as maintaining social fabric and support networks, it helps to support local amenities, services and businesses."

"The schemes that we have delivered have greatly increased the housing opportunities for the local community to access a more diverse range of tenures in their communities. This is true of both access to the home ownership through a more affordable rent-to-buy product to increasing levels of social rented homes available."

"The sites we have developed have delivered small numbers of 6-15 affordable homes on disused council land. This has benefited the new residents of these homes by providing much needed secure affordable housing. It has also benefited the local area in making better use of under used garage sites and disused land, reducing opportunities for fly tipping and other anti-social behaviour."

"Often where we build we undertake 'legacy works' such as providing additional parking or better landscaping or rearranging fencing to cut off alleyways that have been the site of anti-social behaviour."

"A range of community wealth building has been secured via our contracts for local communities. We have met a range of housing needs, eased pressure on the waiting list and have made additional savings to wider council budgets … We have improved the health and wellbeing of residents through independent living. Our homes are at affordable rent levels and have low energy requirements, impacting positively on households financially."

"The scheme funded the delivery of additional, much needed, affordable homes in [area]. The new homes were built on small parcels of land previously vacated by clearances which contributed to improvements to the local areas, such as: anti-social behaviours …; fly-tipping on the vacant land; attracting working households into the areas (the homes were let on affordable rent) – all of which were well received by the existing community. The homes also provided much needed settled accommodation to families who were living in temporary accommodation and overcrowded accommodation."

Indirect benefits of grant-funded schemes to people and places

"[Our] scheme has been used as a blueprint by another local developer for their development. We have also seen a new community group developed as part of the regeneration of the high profile previously derelict building"

"We try very hard to link development activity to social value outputs, including local spend, apprenticeships and work placements. The effects of these initiatives cannot be under estimated."

"We've had other people that are looking to invest in [area] taking an interest, gives other people confidence to invest in the town."

"On a wider geographic impact level the homes show that there is investment in the area, bringing about confidence in investing in other areas either for housing or work opportunities."

"In general the new housing has re-invigorated interest in the social housing offer (from those in the vicinity of the new housing), as it is seen as modern, well-built and improving the area where they were built."

"Our housing project to provide community owned affordable housing was part of a larger project. By receiving the funding from Homes England for the houses we were also able to provide the community with a car park for the village hall, a recreational ground including new children's play equipment, a picnic area, a tennis and netball court, 8 acres of community land including a new footpath, bridleway, dog exercise area, woodland … We will also be able to provide for the needs of the community in the future."

"When people are securely housed and their rents are affordable they contribute more fully to the economy."

"As well as the additional affordable homes, the delivery of the scheme also generated social value outcomes which benefited the local community and the wider community, including: new employment opportunities were created for local residents, trade apprentices worked a total of 143 weeks across the sites … young people from local schools and colleges were engaged through site visits, career fairs and construction related activities such as pre employability workshops."

"Community land and the facilities provide areas which encourage healthy outside activity for the residents of the village. The facilities are widely used. The land is not cultivated and so is a haven for wildlife and biodiversity. As the woodland grows it will help to absorb carbon as we planted 840 trees."

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About us

SQW Group
SQW and Oxford Innovation are part of SQW Group.
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SQW is a leading provider of research, analysis and advice on sustainable economic and social development for public, private and voluntary sector organisations across the UK and internationally. Core services include appraisal, economic impact assessment, and evaluation; demand assessment, feasibility and business planning; economic, social and environmental research and analysis; organisation and partnership development; policy development, strategy, and action planning. In 2019, BBP Regeneration became part of SQW, bringing to the business a RICS-accredited land and property team.
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