



# **Cheshire and Warrington LEP**

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## **Economic and Resident Baseline**

### **Appendix**

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# Contents of the Appendix

Cheshire and Warrington Local Enterprise Partnership (LEP) is reviewing its Strategic Economic Plan (SEP) and has commissioned Metro Dynamics to carry out a high level assessment spatial-economic assessment of the area with the goal of providing a thorough evidence base to underpin this process.

Metro Dynamics has produced a Data Pack with a high-level assessment of the economy, residents, businesses and property patterns in the Cheshire and Warrington LEP area. This appendix includes additional information which was used to inform some of the conclusions drawn in the data pack.

The appendix is composed of five sections. Section A presents population projections for 2039 in Cheshire and Warrington and other comparative LEPs. Section B includes a detailed analysis of the main economic sectors in the LEP area by specialisation based on location quotients. In Section C we divided the LEP area in six sub-regions and carried out a granular analysis of commuting patterns for residents (outflows) and workers (inflows) in these sub-regions. Section C also includes a granular picture of commuting flows to Manchester, which is the main commuting destination outside the LEP for Cheshire and Warrington residents. A sectoral breakdown of the whole UK economy, using the Metro Dynamics bottom-up GVA estimation method is shown in Section D, together with a more detailed analysis of the financial sector and an outlook of business demography in the LEP. Finally Section E provides additional maps of housing typologies, tenure types and prices in the LEP area.

The materials presented here are complementary to the data pack and as such should be read together with the main document, where the methods used and main insights are explained in more detail.

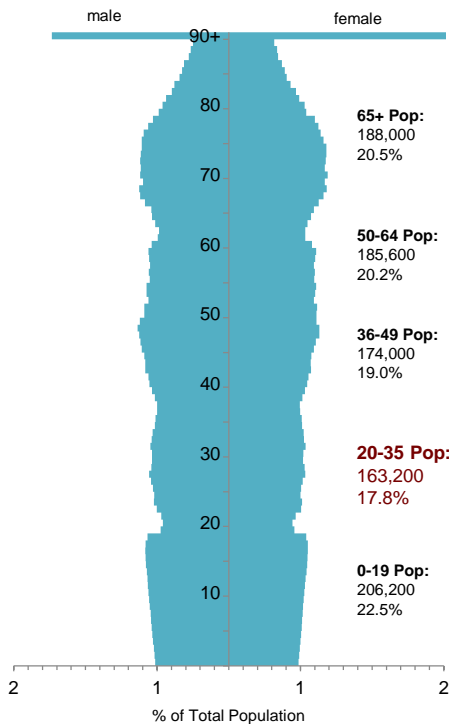
## Contents:

- A. Population projections
- B. Location quotient analysis
- C. Detailed commuting patterns
- D. Businesses, finance and bottom-up GVA
- E. Additional land use and property maps

A.  
Population projections

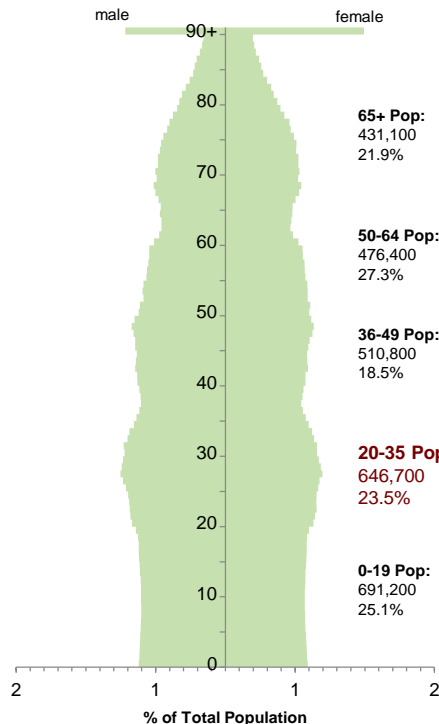
# Population pyramids – 2039 projections

**Cheshire and Warrington LEP**



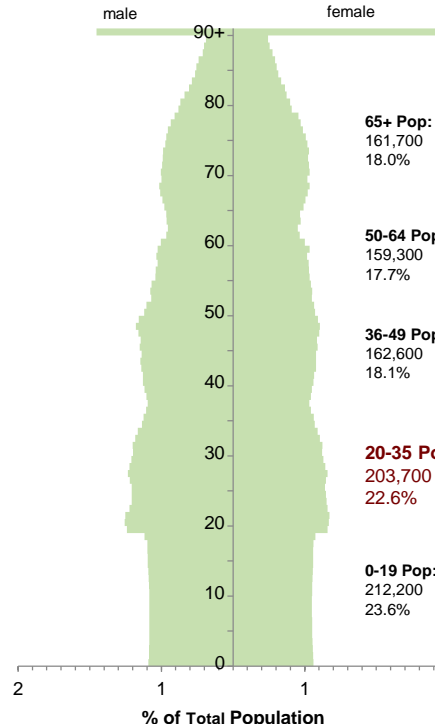
Total Population:  
**990,300**

**Greater Manchester LEP**



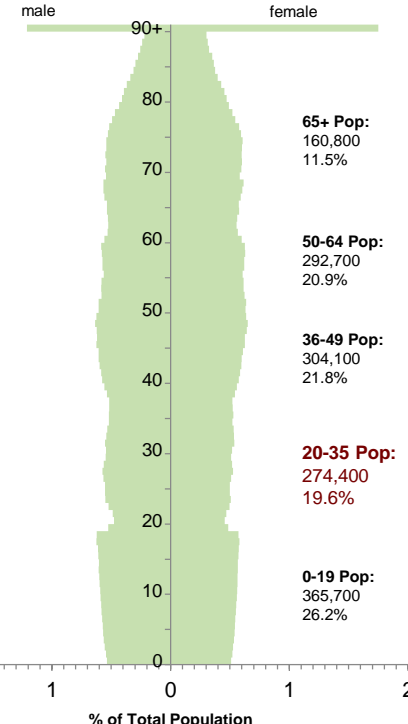
Total Population:  
**3,087,900**

**Coventry and Warwickshire LEP**



Total Population:  
**1,064,200**

**Enterprise M3 LEP**



Total Population:  
**1,749,900**

Projected growth rate 2015-39:  
**7.9%**

(overall projected growth rate for England is 15.5%)

B.  
Location quotient  
analysis  
(sector specialisation)

# Sector specialisation - LEP

Looking at levels of specialisation considering LQs for the main SIC divisions in the Cheshire and Warrington LEP, no sector clearly stands out.

Business administration & support services has the highest specialisation when compared to the National average, with an LQ of 1.27.

The lowest specialisation can be found in Agriculture, forestry and fishing, meaning this sector has the lowest presence in the region's economy.

SIC Section	LQ Cheshire and Warrington LEP
Agriculture, forestry & fishing (A)	0.18
Mining, quarrying & utilities (B,D and E)	1.00
Manufacturing (C)	1.04
Construction (F)	0.90
Motor trades (Part G)	1.04
Wholesale (Part G)	1.01
Retail (Part G)	1.09
Transport & storage (inc postal) (H)	1.05
Accommodation & food services (I)	1.10
Information & communication (J)	0.98
Financial & insurance (K)	1.02
Property (L)	0.81
Professional, scientific & technical (M)	1.12
Business administration & support services (N)	1.27
Public administration & defence (O)	0.71
Education (P)	0.83
Health (Q)	0.90
Arts, entertainment, recreation & other services (R,S,T and U)	1.14

Source: Metro Dynamics analysis of ONS, Business Register and Employment Surveys 2015

# Sector specialisation – Local Authorities

When comparing LQs in the three local authorities, there are variations in strengths:

- Cheshire East has the highest specialisation in Manufacturing, and relatively high levels of specialisation in Financial and insurance services (although not as high as Cheshire West and Chester).
- Cheshire West and Chester has high specialisation in Business administration & support services and in Financial & insurance. Specialisation in Retail and Accommodation and food services is also relatively high.
- Warrington is more specialised in Business administration & support services, Mining, quarrying & utilities, and Transport & storage. Wholesale also shows high levels of specialisation.
- Finance & insurance appears to be a very small part of Warrington's economy, which contrasts to the other two local authorities in the LEP.
- Low specialisation in Agriculture, forestry and fishing is a common pattern across the three local authorities.

SIC Section	LQ Cheshire East	LQ Cheshire West and Chester	LQ Warrington	LQ Cheshire and Warrington LEP
Agriculture, forestry & fishing (A)	0.36	0.10	0.01	0.18
Mining, quarrying & utilities (B,D and E)	0.78	0.78	1.63	1.00
Manufacturing (C)	1.32	0.99	0.67	1.04
Construction (F)	0.90	0.76	1.10	0.90
Motor trades (Part G)	0.98	1.04	1.14	1.04
Wholesale (Part G)	1.05	0.77	1.29	1.01
Retail (Part G)	1.02	1.26	0.94	1.09
Transport & storage (inc postal) (H)	0.96	0.80	1.52	1.05
Accommodation & food services (I)	1.11	1.20	0.96	1.10
Information & communication (J)	1.10	0.71	1.15	0.98
Financial & insurance (K)	1.20	1.31	0.35	1.02
Property (L)	0.82	0.93	0.63	0.81
Professional, scientific & technical (M)	1.43	0.76	1.12	1.12
Business administration & support services (N)	0.77	1.45	1.77	1.27
Public administration & defence (O)	0.45	0.81	0.98	0.71
Education (P)	0.79	1.03	0.61	0.83
Health (Q)	0.97	0.88	0.82	0.90
Arts, entertainment, recreation & other services (R,S,T and U)	1.08	1.23	1.11	1.14

Source: Metro Dynamics analysis of ONS, Business Register and Employment Surveys 2015

# Creative industries

Considering sectors related to the creative industries, the LEP has relatively high levels of specialisation in IT, software and computer services when compared to Great Britain as a whole.

Conversely, Film, TV, etc. and Music, performing and visual arts have particularly low specialisation levels in the LEP.

At the local authority level it is noteworthy:

- The quite high presence of Crafts in Cheshire West and Chester, contrasting to the remaining LAs.
- High levels of specialisation in IT, software and computer services in Cheshire East (higher than in the LEP as a whole).
- Museums, galleries and libraries appear to be relatively important in the economies of Cheshire East and Cheshire West and Chester, contrasting to the quite low levels of specialisation in Warrington.

Creative industries group	LQ Cheshire East	LQ Cheshire West and Chester	LQ Warrington	LQ Cheshire and Warrington LEP
Advertising and marketing	1.81	0.46	0.75	1.06
Architecture	0.78	0.56	0.26	0.57
Design: product, graphics and fashion design	1.12	0.61	0.33	0.74
Film, TV, video, radio and photography	0.24	0.28	0.18	0.24
IT, software and computer services	1.62	0.90	1.13	1.24
Crafts	0.12	2.03	0.00	0.76
Museums, galleries and libraries	1.26	1.25	0.60	1.09
Music, performing and visual arts	0.57	0.32	0.18	0.38
Publishing	0.31	0.80	0.93	0.64

Sources: Metro Dynamics analysis of Department for Culture, Media and Sport; ONS Business Register and Employment Surveys 2015 data



## B. Location quotient analysis

# Top sectors (SIC-5 sub-sectors)

Sector	Empl. Cheshire East	Empl. Cheshire West and Chester	Empl. Warrington	Empl. Cheshire and Warrington LEP	LQ Cheshire East	LQ Cheshire West and Chester	LQ Warrington	LQ Cheshire and Warrington LEP
Extraction of salt (08930)	78	194	0	272	<b>30.74</b>	<b>84.90</b>	0.00	<b>41.90</b>
Cold rolling of narrow strip (24320)	0	0	44	44	0.00	0.00	<b>94.80</b>	<b>24.38</b>
Operation of bus and coach passenger facilities at bus and coach stations (52213)	9	0	250	259	2.08	0.00	<b>87.89</b>	<b>23.41</b>
Manufacture of other inorganic basic chemicals (20130)	1	776	341	1,118	0.04	<b>30.57</b>	<b>18.39</b>	<b>15.50</b>
Manufacture of wallpaper (17240)	208	0	0	208	<b>31.81</b>	0.00	0.00	<b>12.44</b>
Manufacture of fertilisers and nitrogen compounds (20150)	4	367	0	371	0.31	<b>31.15</b>	0.00	<b>11.08</b>
Manufacture of hollow glass (23130)	0	758	0	758	0.00	<b>30.03</b>	0.00	<b>10.57</b>
Lead, zinc and tin production (24430)	0	142	0	142	0.00	<b>27.49</b>	0.00	9.68
Mineral oil refining (19201)	0	999	0	999	0.00	<b>27.45</b>	0.00	9.66
Treatment and disposal of hazardous waste (38220)	7	56	1,043	1,106	0.15	1.31	<b>33.53</b>	9.14
Support activities for animal production (01629)	778	24	2	804	<b>21.36</b>	0.73	0.08	8.63
Manufacture of steel drums and similar containers (25910)	0	110	0	110	0.00	<b>19.47</b>	0.00	6.85
Activities of collection agencies (82911)	23	1,116	192	1,331	0.26	<b>14.13</b>	3.33	5.93
Cold drawing of wire (24340)	0	0	54	54	0.00	0.00	<b>22.44</b>	5.77
Manufacture of pharmaceutical preparations (21200)	2,177	235	2	2,414	<b>11.67</b>	1.40	0.02	5.06

Sources: Metro Dynamics analysis of ONS Business Register and Employment Surveys 2015

# Pharmaceutical products

Sector	Empl. Cheshire East	Empl. Cheshire West and Chester	Empl. Warrington	Empl. Cheshire and Warrington LEP	LQ Cheshire East	LQ Cheshire West and Chester	LQ Warrington	LQ Cheshire and Warrington LEP
Manufacture of basic pharmaceutical products (21100)	4	0	15	19	0.11	0.00	0.63	0.21
Manufacture of pharmaceutical preparations (21200)	2,177	235	2	2,414	<b>11.67</b>	1.40	0.02	<b>5.06</b>
Wholesale of pharmaceutical goods (46460)	381	365	586	1,332	0.931	0.99	2.18	1.27

Sources: Metro Dynamics analysis of ONS Business Register and Employment Surveys 2015

- 'Manufacture of pharmaceutical preparations' is a quite important sector in the LEP and, more particularly, in Cheshire East.

# Life Sciences research

Sector	Empl. Cheshire East	Empl. Cheshire West and Chester	Empl. Warrington	Empl. Cheshire and Warrington LEP	LQ Cheshire East	LQ Cheshire West and Chester	LQ Warrington	LQ Cheshire and Warrington LEP
Research and experimental development on biotechnology (72110)	36	2	1	39	0.69	0.04	0.03	0.29
Other research and experimental development on natural sciences and engineering (72190)	2,157	171	139	2,467	<b>2.77</b>	0.24	0.27	1.24

Sources: Metro Dynamics analysis of ONS Business Register and Employment Surveys 2015

- Research and experimental development on natural sciences and engineering is an important sector in Cheshire East, with over 2000 jobs and an LQ of 2.77.
- These jobs are probably mainly based in Alderley Park.
- Life Sciences research employment and specialisation is quite low in other parts of the LEP.

# Manufacture of motor vehicles

Sector	Empl. Cheshire East	Empl. Cheshire West and Chester	Empl. Warrington	Empl. Cheshire and Warrington LEP	LQ Cheshire East	LQ Cheshire West and Chester	LQ Warrington	LQ Cheshire and Warrington LEP
Manufacture of motor vehicles (29100)	3,765	2,034	2	5,801	<b>7.41</b>	<b>4.45</b>	0.01	<b>4.46</b>
Manufacture of bodies (coachwork) for motor vehicles (29201)	124	22	96	242	<b>2.51</b>	0.49	<b>2.95</b>	1.91
Manufacture of other parts and accessories for motor vehicles (29320)	306	450	43	799	0.83	1.36	0.18	0.85

Sources: Metro Dynamics analysis of ONS Business Register and Employment Surveys 2015

## B. Location quotient analysis

# Energy-related sectors

Sector	Empl. Cheshire East	Empl. Cheshire West and Chester	Empl. Warrington	Empl. Cheshire and Warrington LEP	LQ Cheshire East	LQ Cheshire West and Chester	LQ Warrington	LQ Cheshire and Warrington LEP
Mineral oil refining (19201)	0	999	0	999	0.00	<b>27.45</b>	0.00	<b>9.66</b>
Construction of utility projects for fluids (42210)	1	13	407	421	0.03	0.37	<b>15.81</b>	<b>4.20</b>
Other mining and quarrying nec (08990)	79	0	0	79	<b>9.37</b>	0.00	0.00	<b>3.66</b>
Other treatment of petroleum products (19209)	4	0	71	75	0.28	0.00	<b>7.66</b>	2.08
Distribution of gaseous fuels through mains (35220)	253	41	15	309	<b>4.06</b>	0.73	0.37	1.94
Engineering design activities for industrial process and production (71121)	423	376	693	1,492	1.10	1.09	2.74	1.52
Production of electricity (35110)	77	134	458	669	0.44	0.84	<b>3.94</b>	1.48
Other engineering activities (71129)	1,858	1,338	2,727	5,923	1.17	0.94	2.62	1.46
Other research and experimental development on natural sciences and engineering (72190)	2,157	171	139	2,467	2.77	0.24	0.27	1.24
Manufacture of steam generators, except central heating hot water boilers (25300)	0	32	0	32	0.00	2.69	0.00	0.95

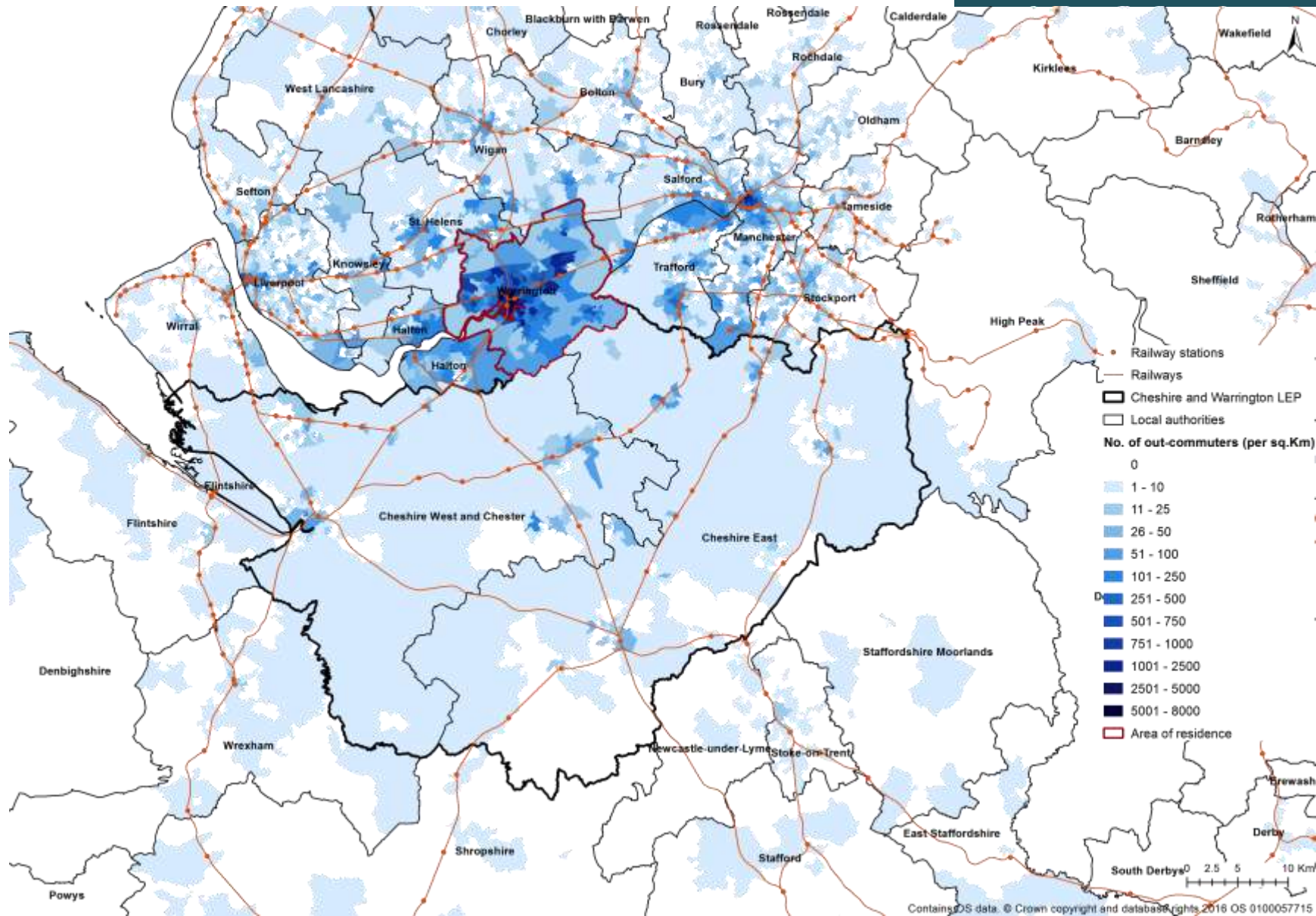
Sources: Metro Dynamics analysis of ONS Business Register and Employment Surveys 2015

This table contains a set of selected sectors which have a significant specialization ( $LQ > 2.5$ ) in the LEP or in each of the local authorities, from a list of sectors SIC codes related to the Energy sector, according to the Mikledore report.

C.  
Detailed commuting  
patterns

### C. Detailed commuting patterns

# Commuting patterns (where C&W residents work)

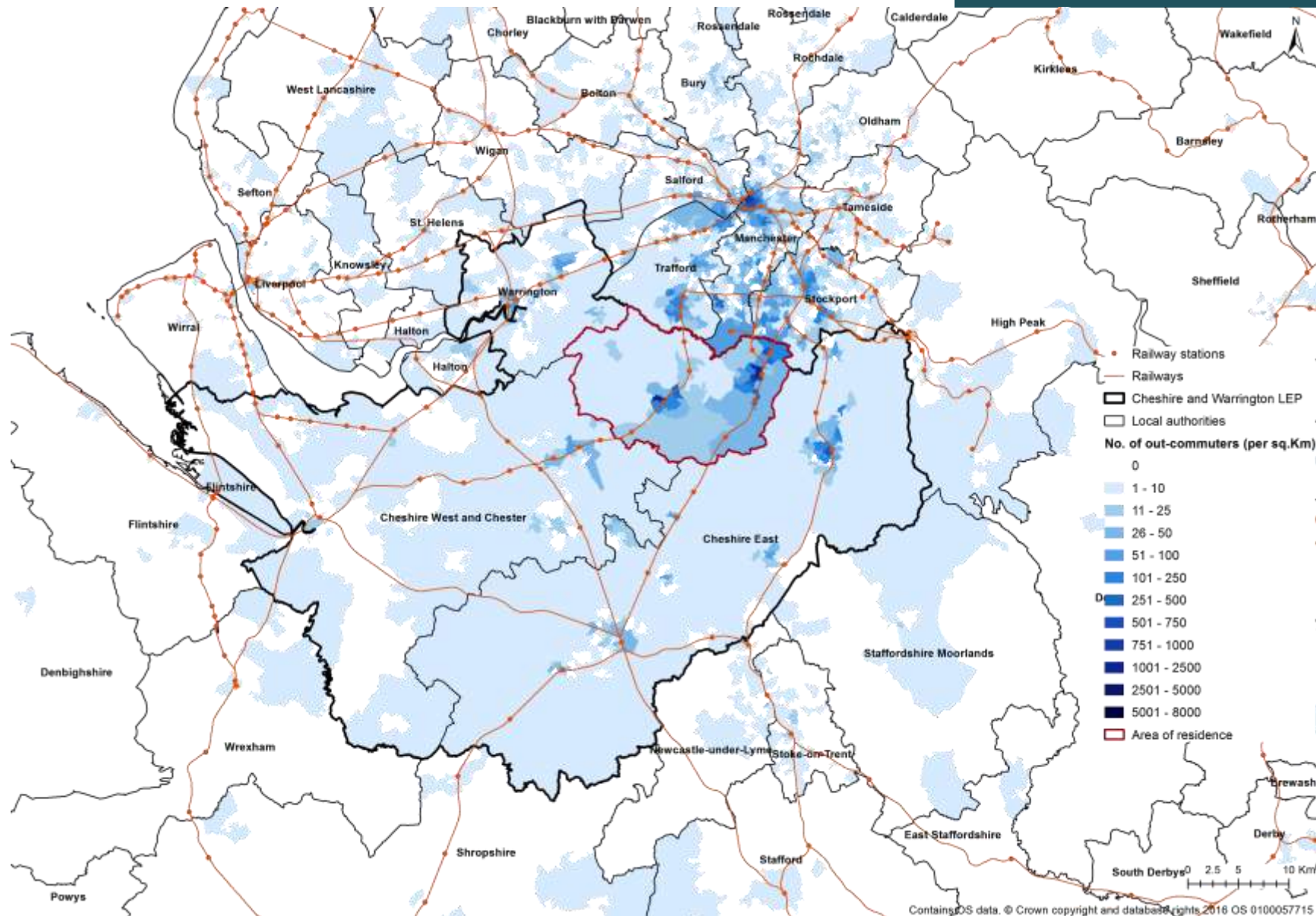


Source: Metro Dynamics analysis of ONS Census 2011 and Ordnance Survey data

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## C. Detailed commuting patterns

## Commuting patterns (where C&amp;W residents work)







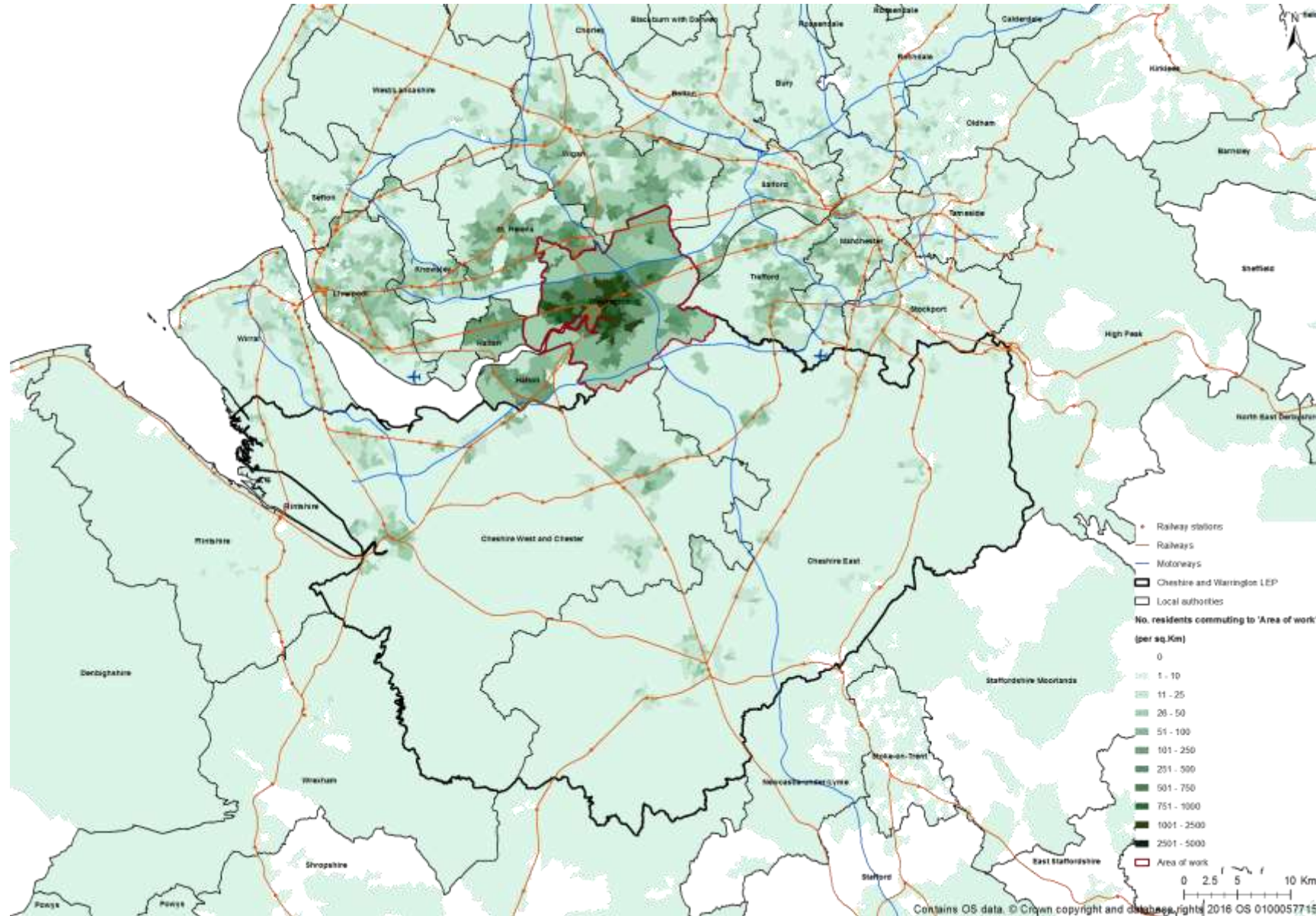






# C. Detailed commuting patterns

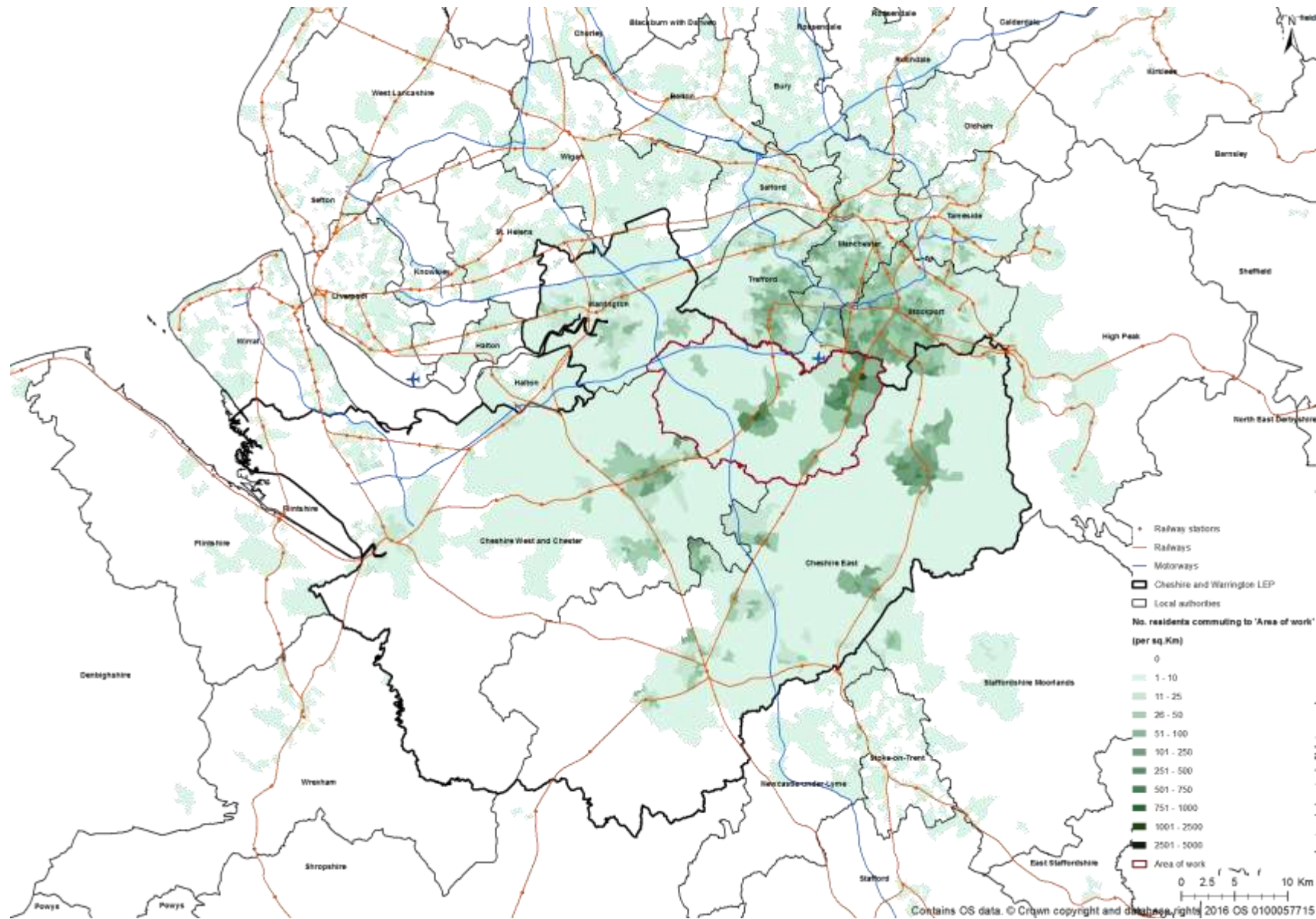
## Commuting patterns (who works in C&W)



Source: Metro Dynamics analysis of ONS Census 2011 and Ordnance Survey data

## C. Detailed commuting patterns

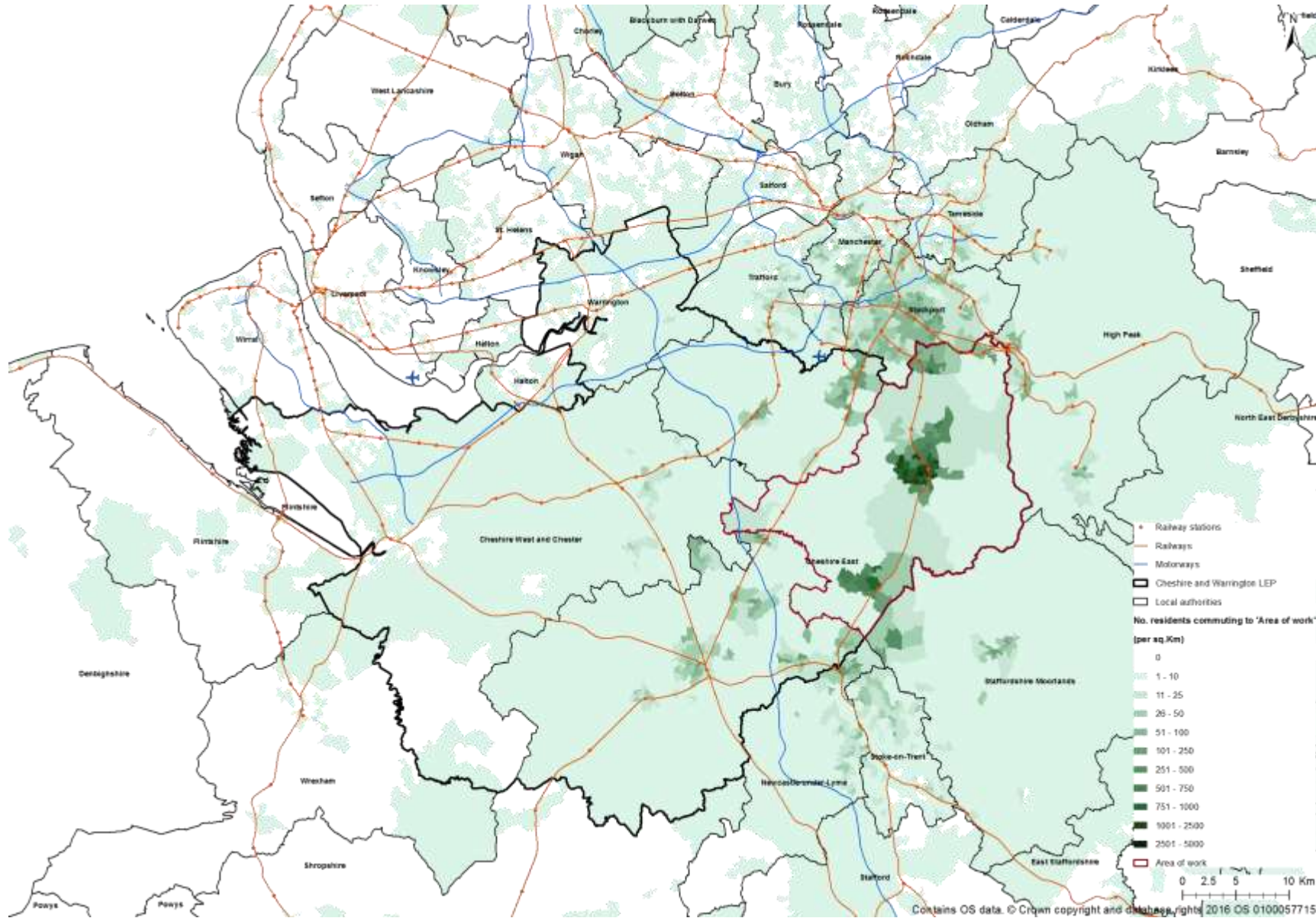
## Commuting patterns (who works in C&amp;W)



Source: Metro Dynamics  
analysis of ONS Census 2011  
and Ordnance Survey data

# C. Detailed commuting patterns

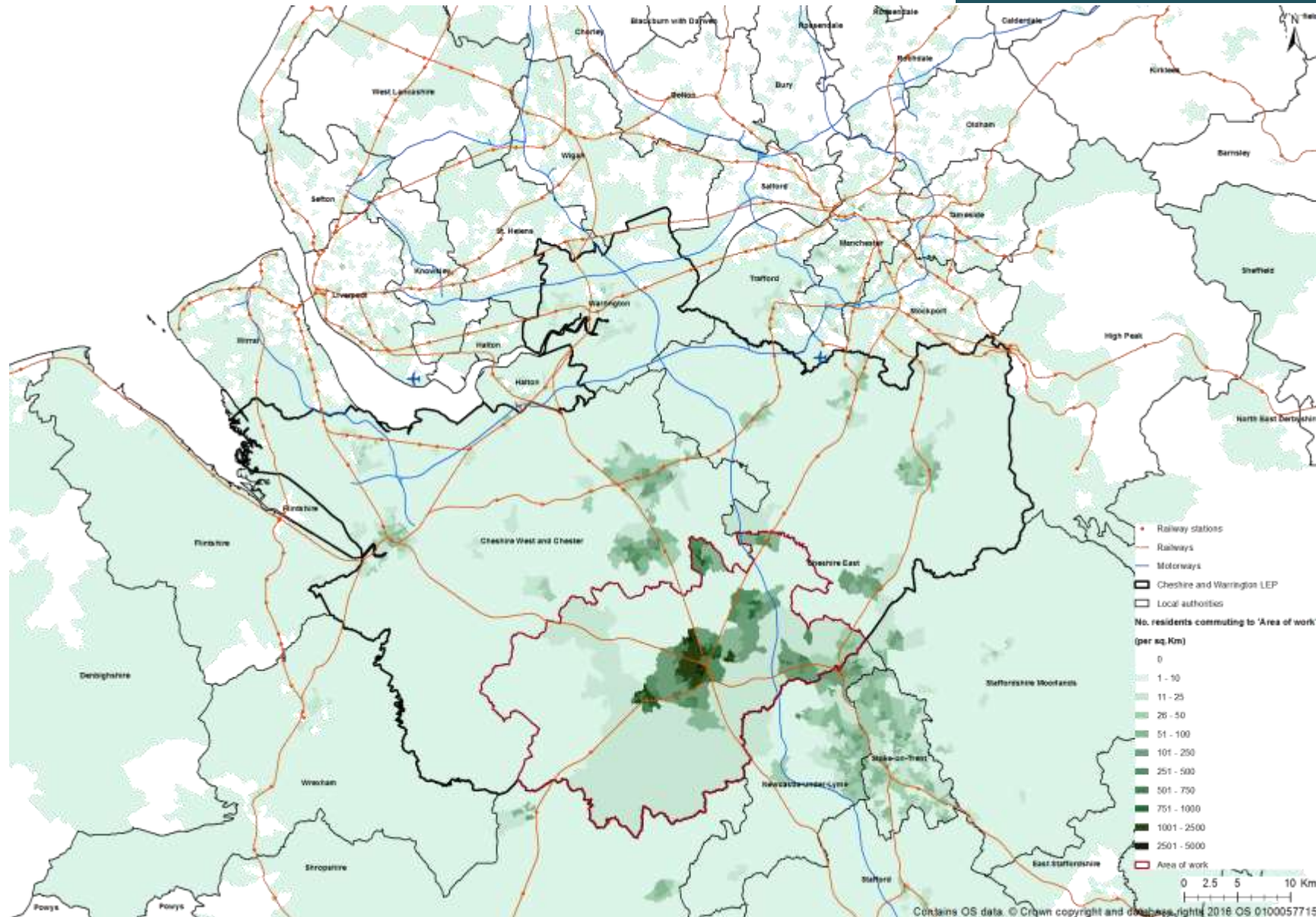
## Commuting patterns (who works in C&W)



Source: Metro Dynamics analysis of ONS Census 2011 and Ordnance Survey data

# C. Detailed commuting patterns

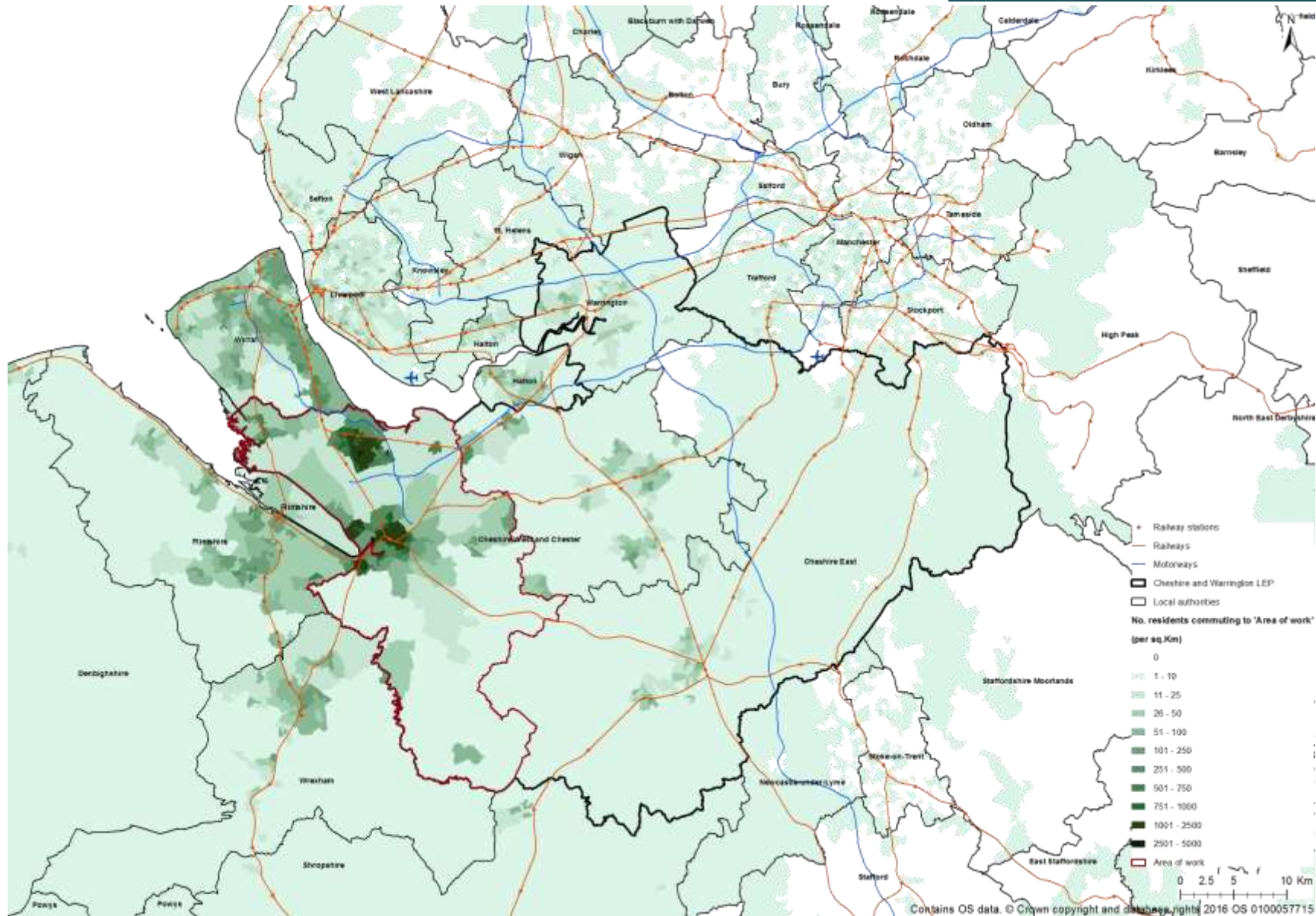
## Commuting patterns (who works in C&W)



Source: Metro Dynamics analysis of ONS Census 2011 and Ordnance Survey data



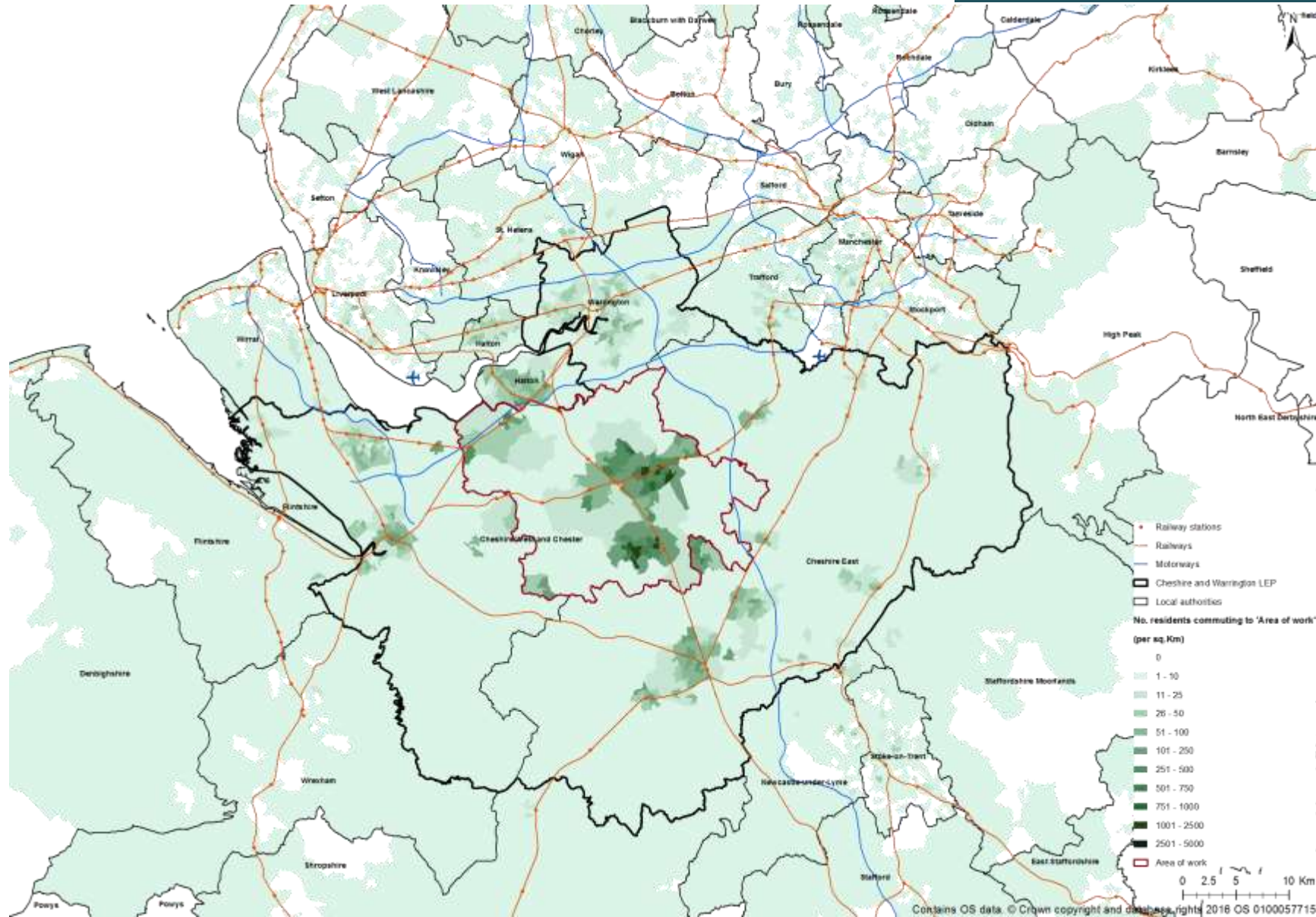
# Commuting patterns (who works in C&W)



Source: Metro Dynamics analysis of ONS Census 2011 and Ordnance Survey data

# C. Detailed commuting patterns

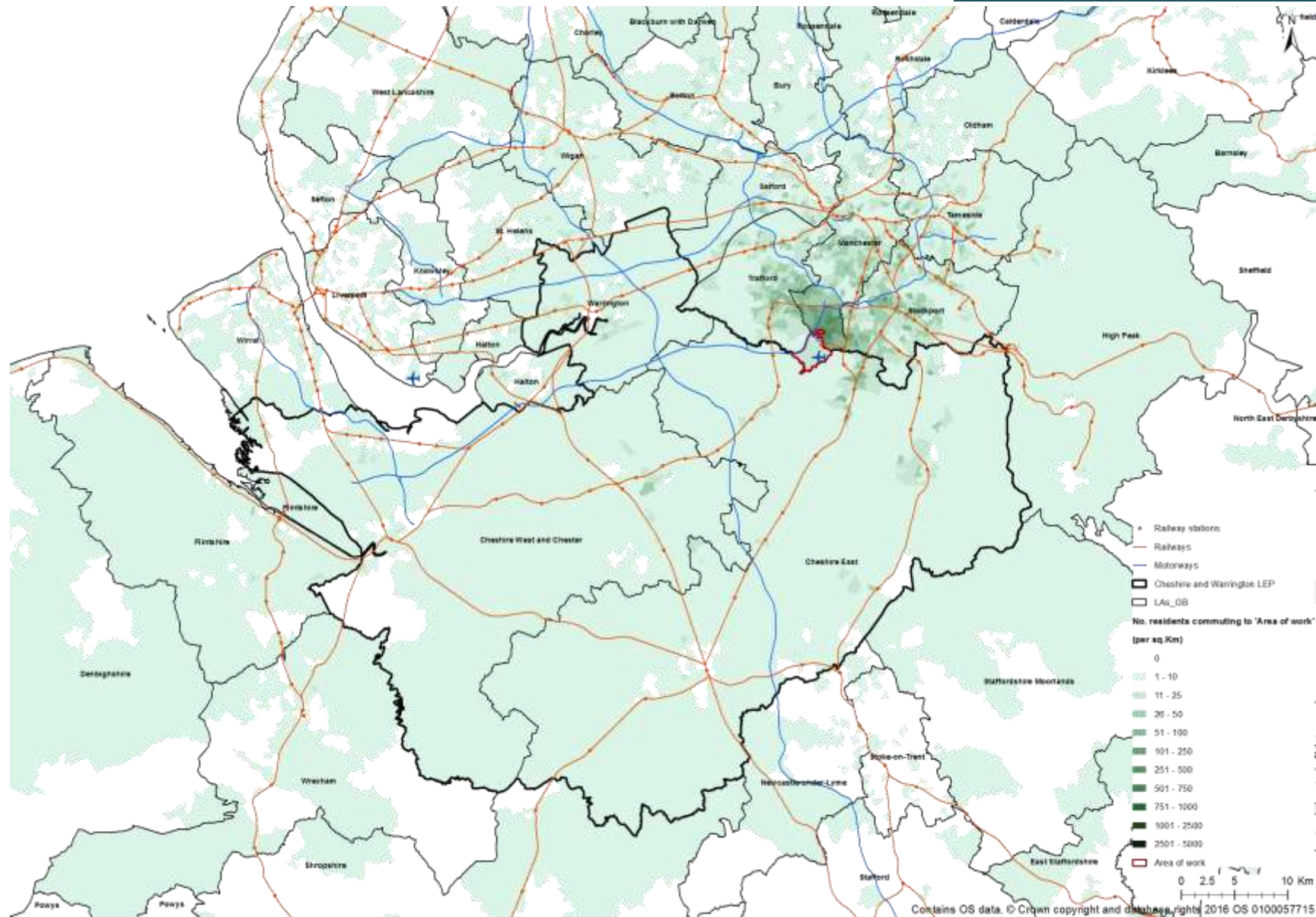
## Commuting patterns (who works in C&W)



Source: Metro Dynamics analysis of ONS Census 2011 and Ordnance Survey data

## C. Detailed commuting patterns

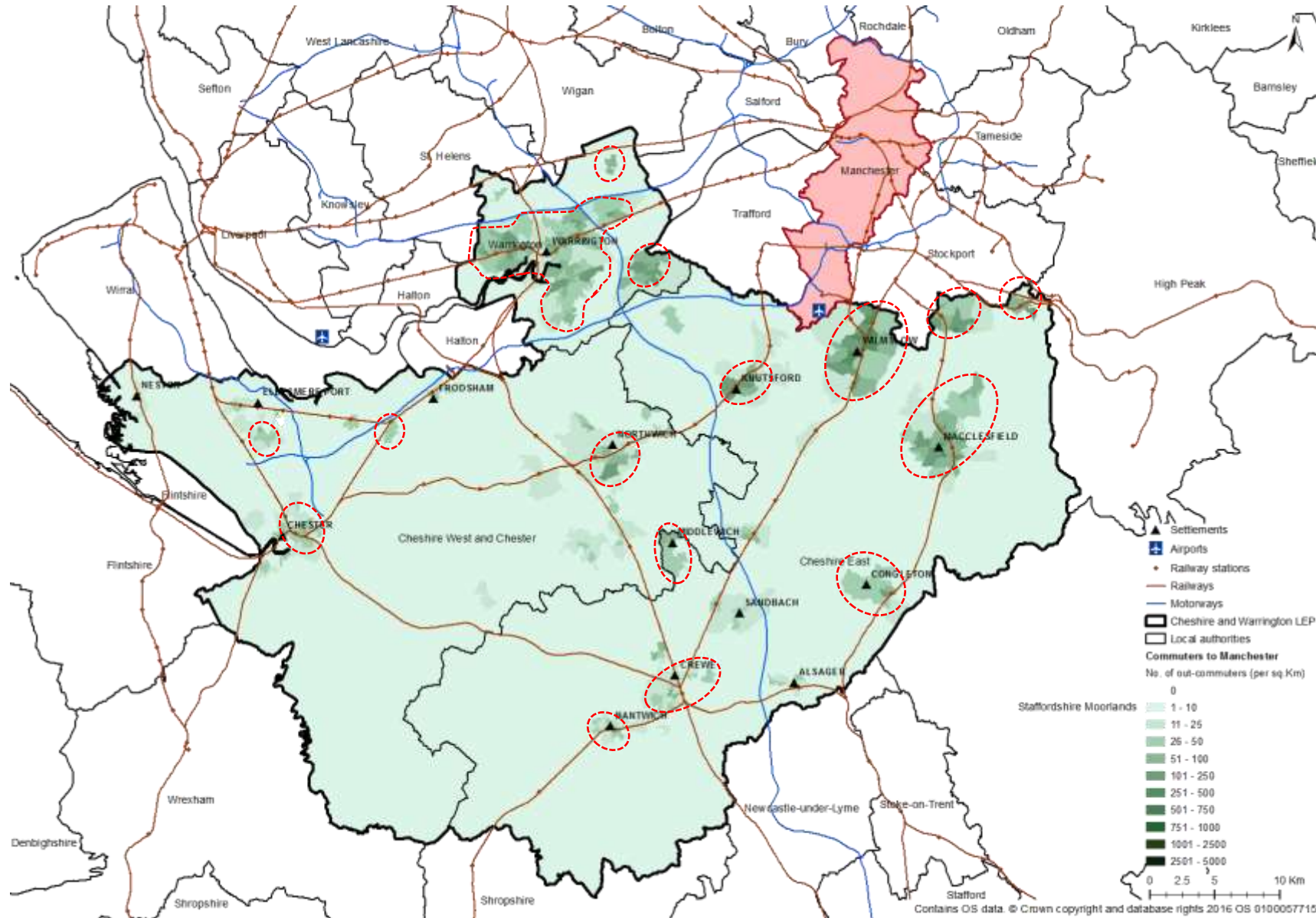
## Commuting patterns (who works in Manchester Airport)



Source: Metro Dynamics  
analysis of ONS Census 2011  
and Ordnance Survey data

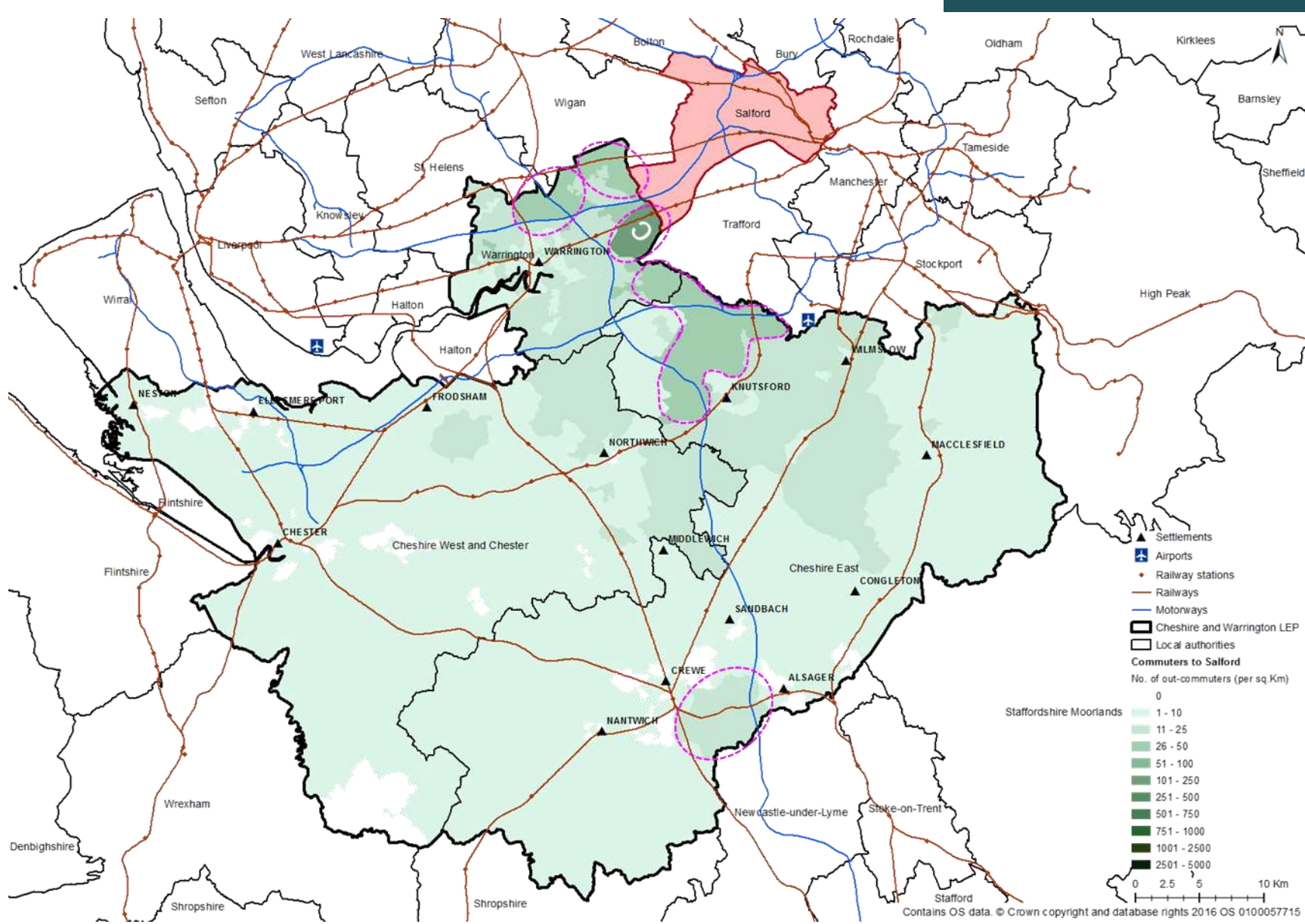
C. Detailed commuting patterns

# Commuting patterns (who works in Manchester)



Source: Metro Dynamics analysis of ONS Census 2011 and Ordnance Survey data

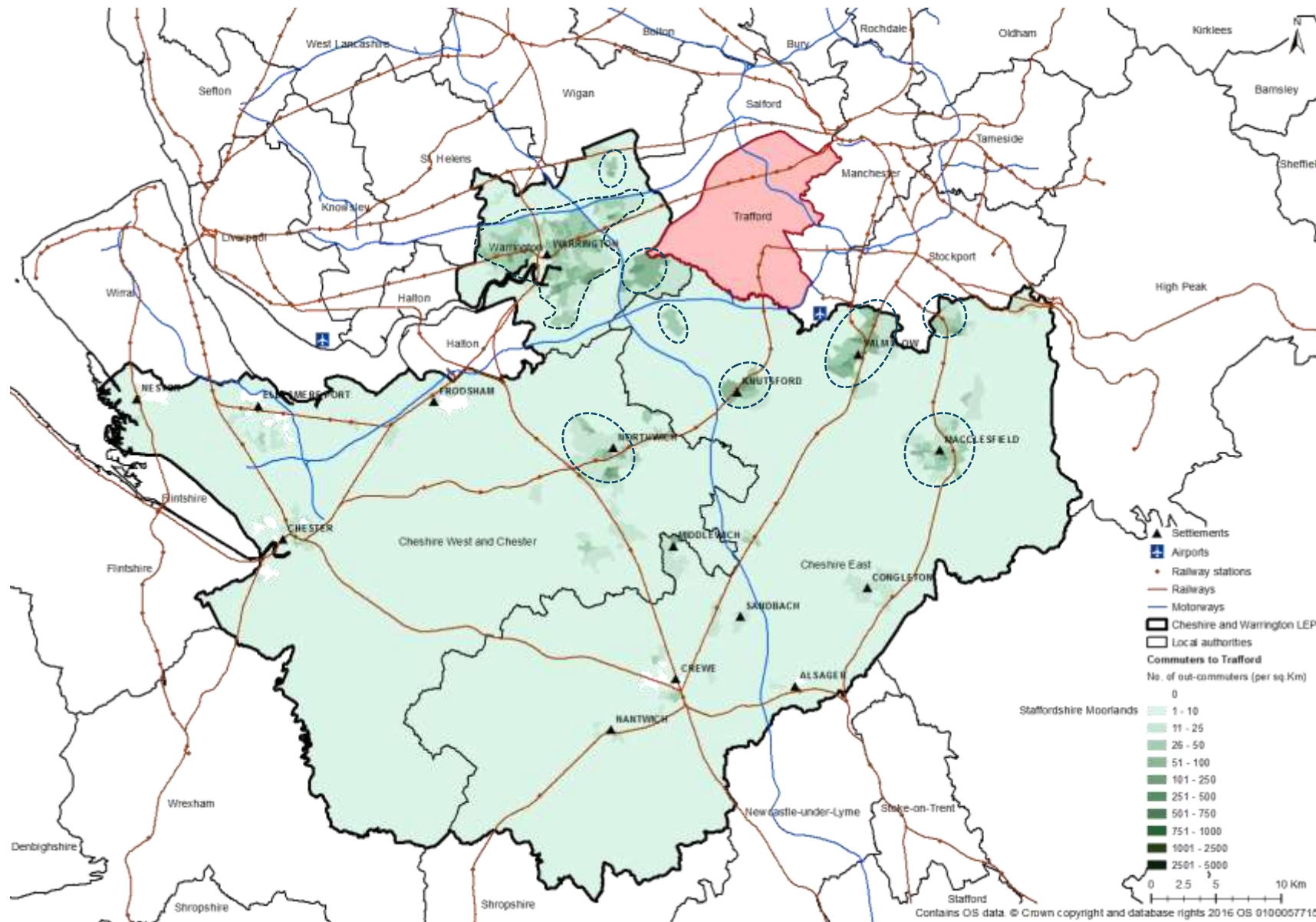
# Commuting patterns (who works in Salford)



Source: Metro Dynamics analysis of ONS Census 2011 and Ordnance Survey data

## C. Detailed commuting patterns

## Commuting patterns (who works in Trafford)



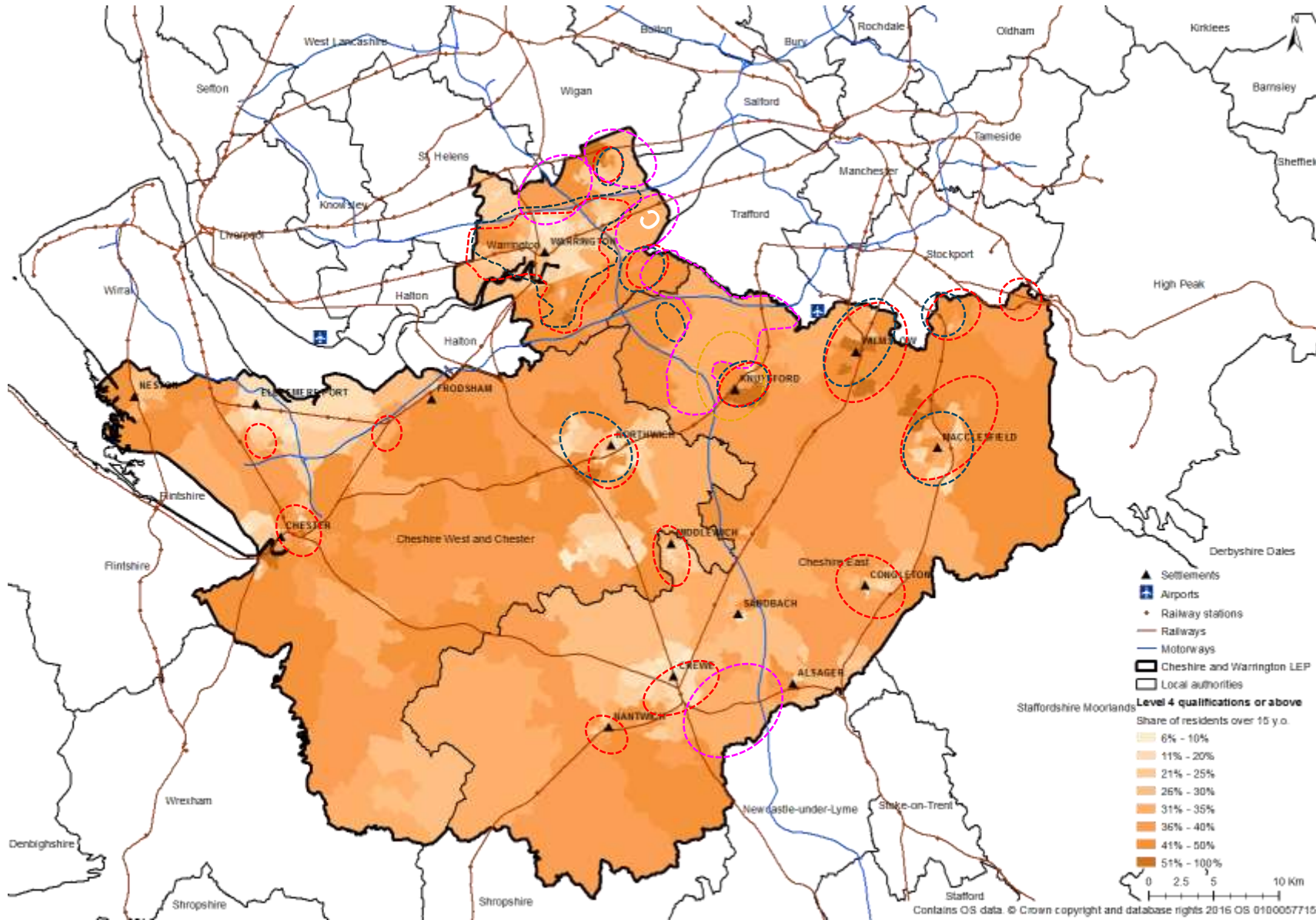
Source: Metro Dynamics  
analysis of ONS Census 2011  
and Ordnance Survey data

## C. Detailed commuting patterns

# Commuting to Manchester and qualifications

Pockets of residents commuting to:

- Manchester
- Salford
- Trafford



Source: Metro Dynamics analysis of ONS Census 2011 and Ordnance Survey data

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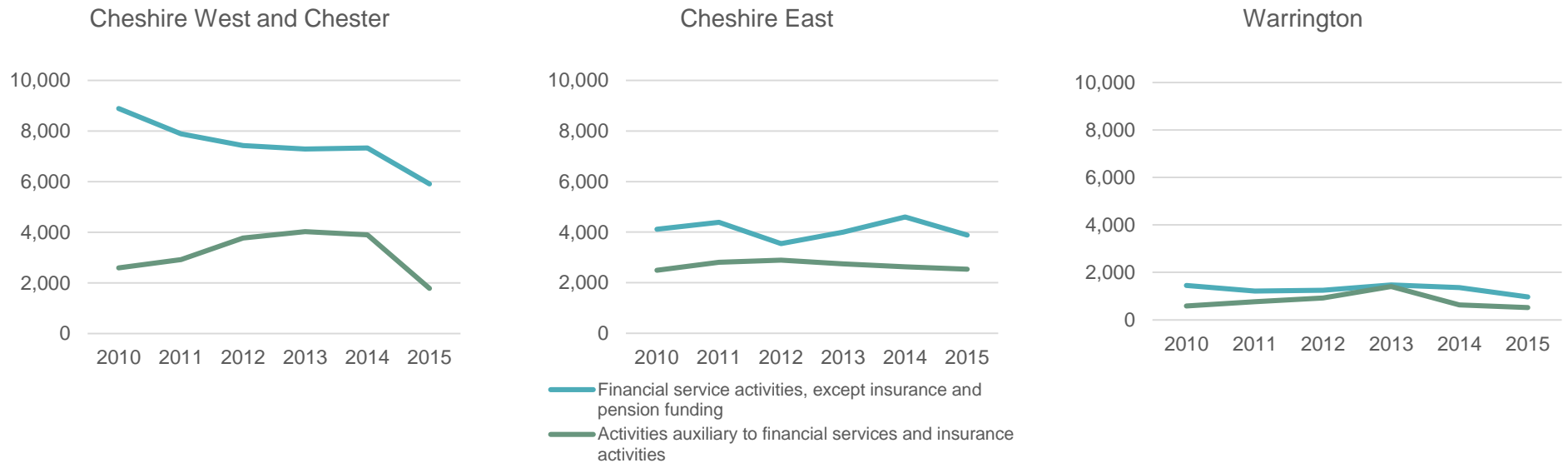
D.  
Businesses, finance and  
bottom-up GVA



# D. Businesses, finance and bottom-up GVA

## Detailed analysis of financial services

Number of jobs (selected SIC 2 sectors):



Number of jobs in top finance sub-sectors in Cheshire West and Chester:

Sub-sector (SIC 5)	2010	2015	Change in no. jobs 2010-15
64191 : Banks	8431	3660	-4771
64921 : Credit granting by non-deposit taking finance houses and other specialist consumer credit grantors	122	1967	1845
66190 : Other activities auxiliary to financial services, except insurance and pension funding	1697	1334	-363
66290 : Other activities auxiliary to insurance and pension funding	316	207	-109
66220 : Activities of insurance agents and brokers	426	127	-299
64192 : Building societies	118	105	-13
66210 : Risk and damage evaluation	66	101	35

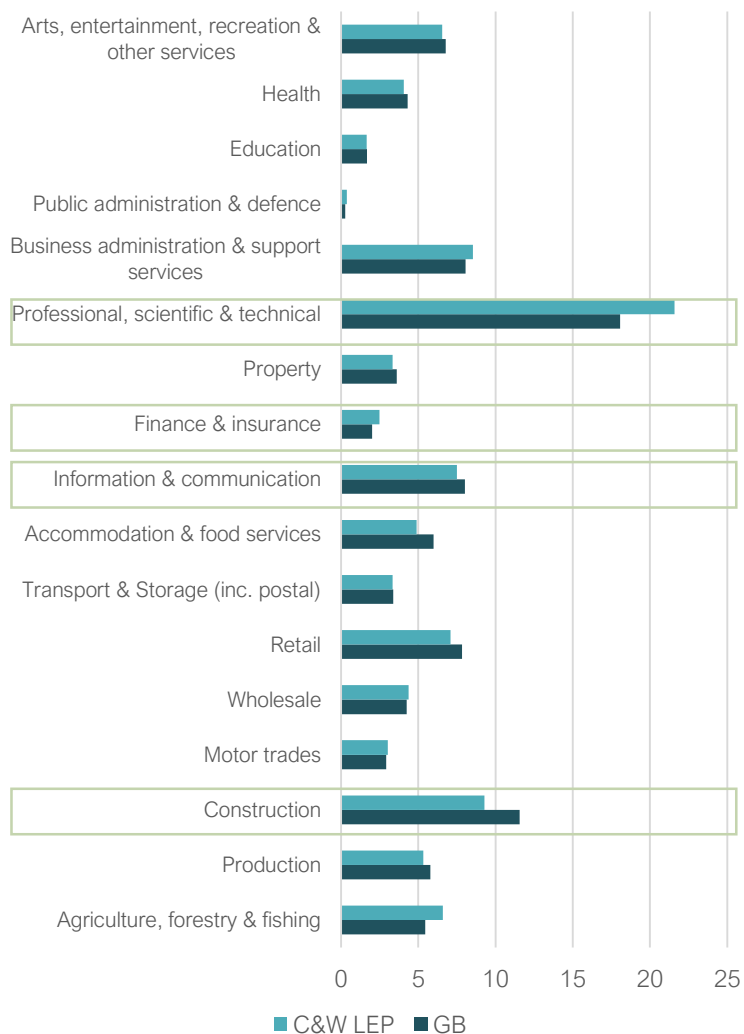
Number of jobs in selected neighbourhoods in Chester:

Top areas of jobs in finance		2010		2014		2015	
Area	LSOA code	Banks (64191)	Other activities (66190)	Banks (64191)	Other activities (66190)	Banks (64191)	Other activities (66190)
Chester Business Park	E01018335	5138	1545	4058	2107	1937	97
South of railway station	E01018318	1066	9	1010	1	0	3

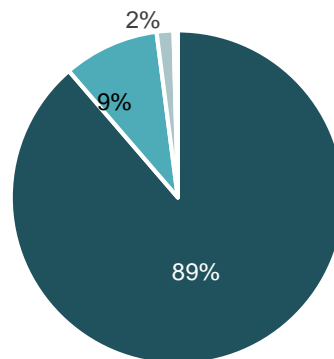
# D. Businesses, finance and bottom-up GVA

## Business Demography (2015)

% share of enterprises by industry



Share of Cheshire and Warrington enterprises by size



32,165 micro and 3,365 small enterprises; 590 medium and 150 large

- Micro (0 - 9 employees)
- Small (10 - 49 employees)
- Medium (50 - 249 employees)
- Large (250+ employees)

% share of LEP enterprises by size

	Warrington	Cheshire East	Cheshire West and Chester
Micro	18.3	48.0	33.7
Small	20.5	46.5	33.0
Medium	22.9	42.4	34.7
Large	30.0	36.7	33.3
Total	18.6	47.7	33.6

Counts of enterprise births, deaths, active

	Births	Deaths	Active
Cheshire East	2,410	1,710	19,235
Cheshire West and Chester	1,810	1,255	13,785
Warrington	1,230	770	8,485
<b>C&amp;W LEP</b>	<b>5,450</b>	<b>3,735</b>	<b>41,505</b>

Enterprise survival rate to 2015

	Births in 2011	1-year	2-year	3-year	4-year
Cheshire East	1,855	92.5	76.3	61.7	52.0
Cheshire West and Chester	1,350	95.2	80.7	65.2	54.4
Warrington	860	93.6	78.5	64.5	52.9
<b>C&amp;W LEP</b>	<b>4,065</b>	<b>93.6</b>	<b>78.2</b>	<b>63.5</b>	<b>53.0</b>
Great Britain	257,625	93.1	75.6	60.5	51.0

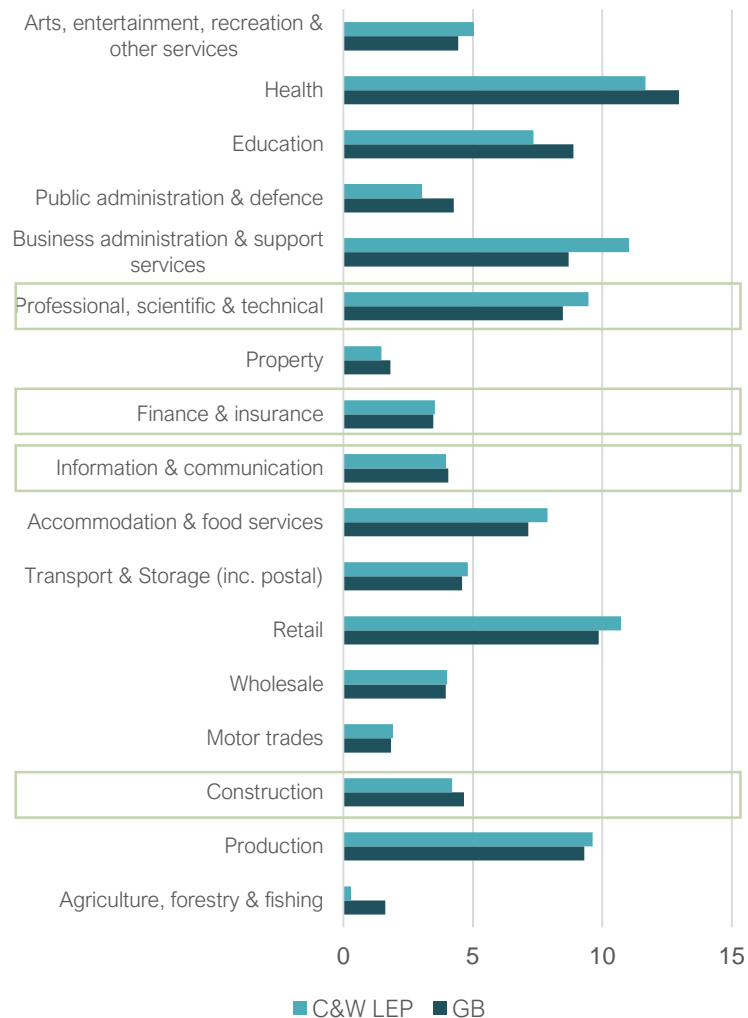
While Warrington has 18.6% of all enterprises in the LEP, it has a higher share of Large (30%) and Medium size (22.9%) ones.

Cheshire East presents a relatively lower share for enterprises in these size bands.

# D. Businesses, finance and bottom-up GVA

## Employment by sector (2015)

% share of employment by industry

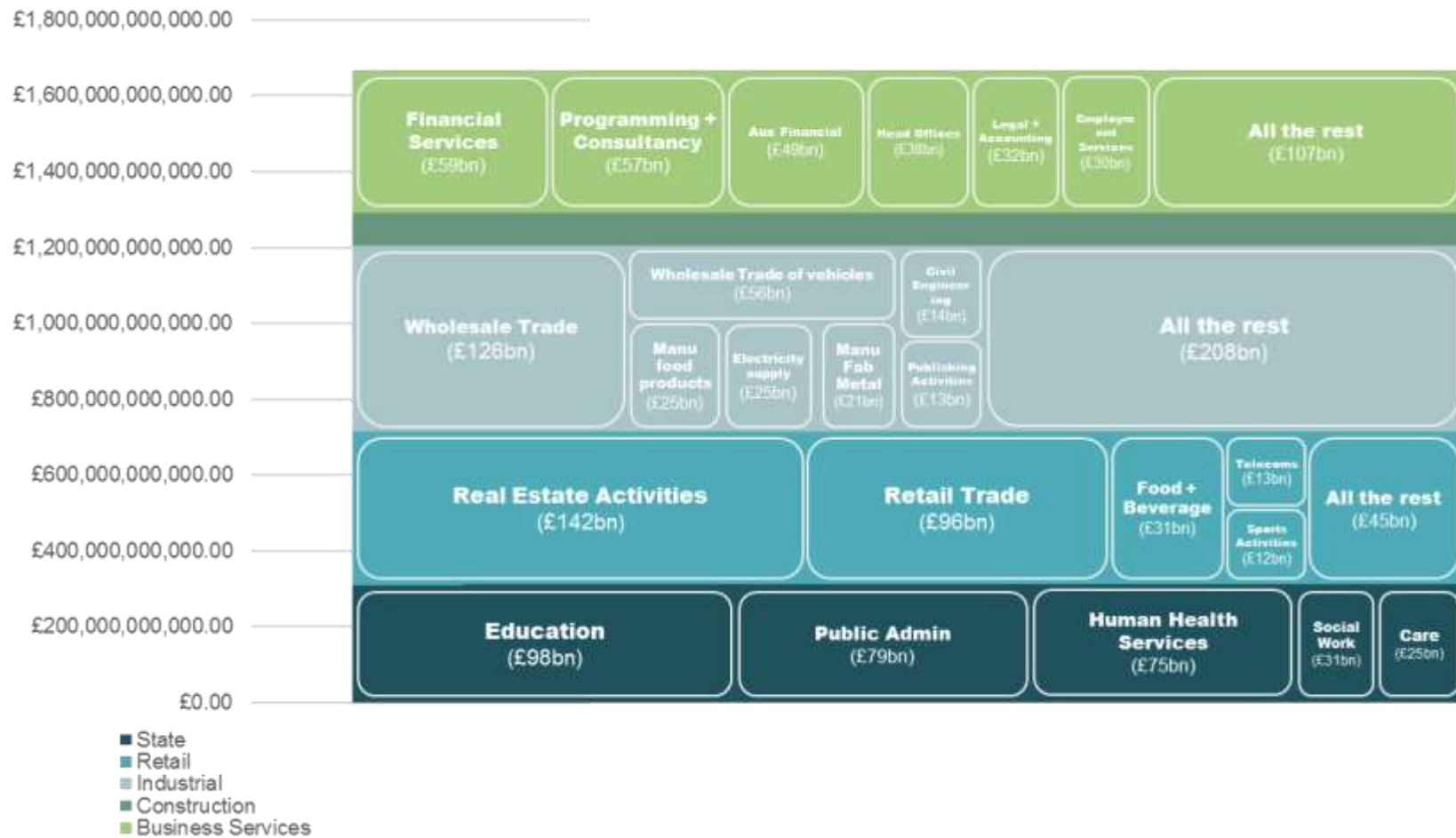


Top 20 2-digit SIC industries by employment

Retail trade (ex motor vehicles)	51,723
Education	35,405
Human health activities	30,634
Food and beverage	30,061
Wholesale trade (ex motor vehicles)	19,319
Employment activities	16,970
Office administrative	16,879
Public admin & defence	14,642
Legal & accounting	14,482
Social work	13,663
Programming & consultancy	12,552
Building & landscape	12,032
Residential care	11,954
Architectural & engineering	10,971
Specialised construction activities	10,920
Head offices & management consultancies	10,893
Financial service activities	10,753
Warehousing	10,019
Wholesale/retail trade of motor vehicles	9,225
Sports/amusement and recreation	8,417

# D. Businesses, finance and bottom-up GVA

## Bottom-up GVA matrix for the UK

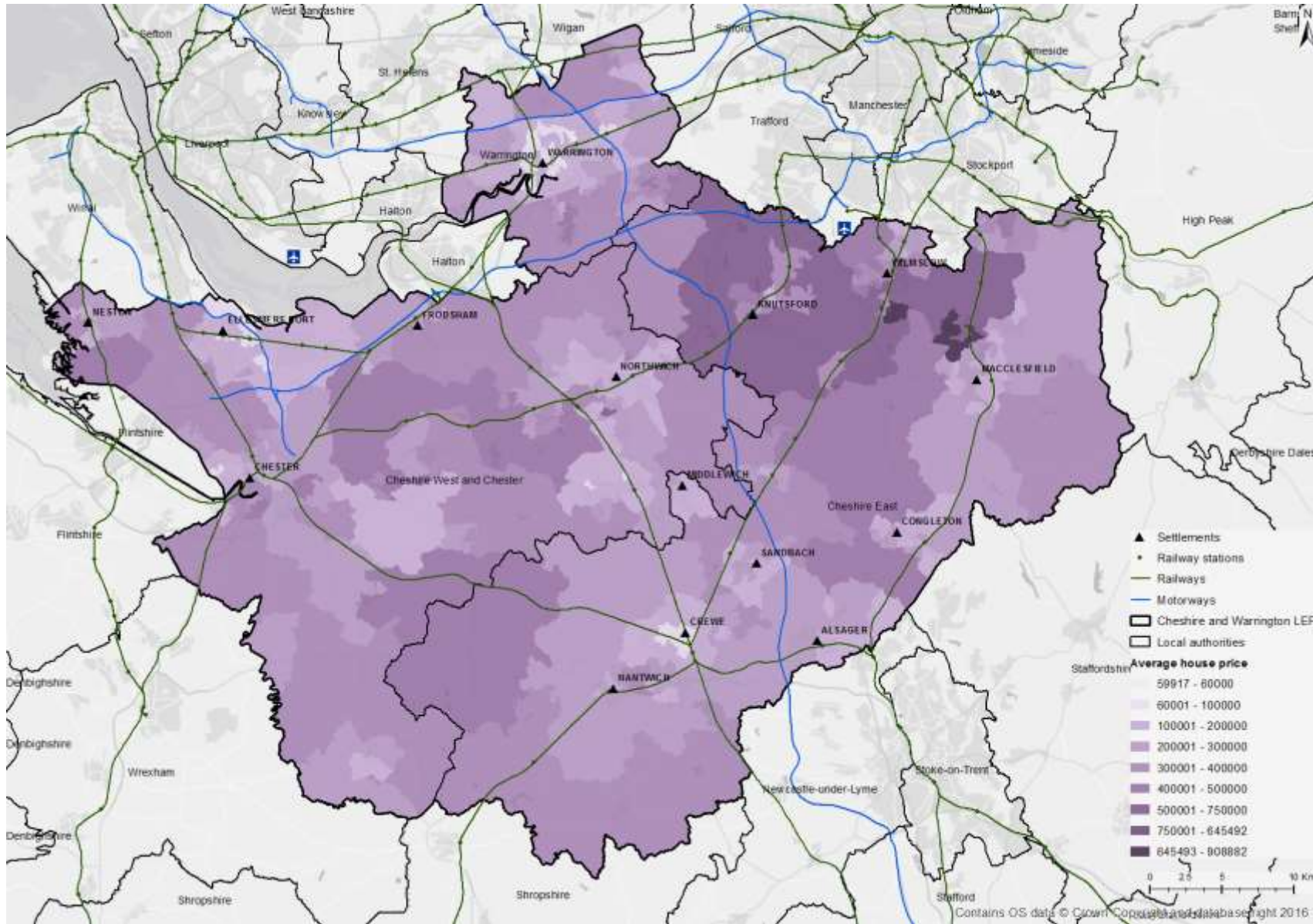


Source: Metro Dynamics analysis using ONS BRES and GVA Regional Input tables, and BvD data pulled on 27 October 2016.

E.

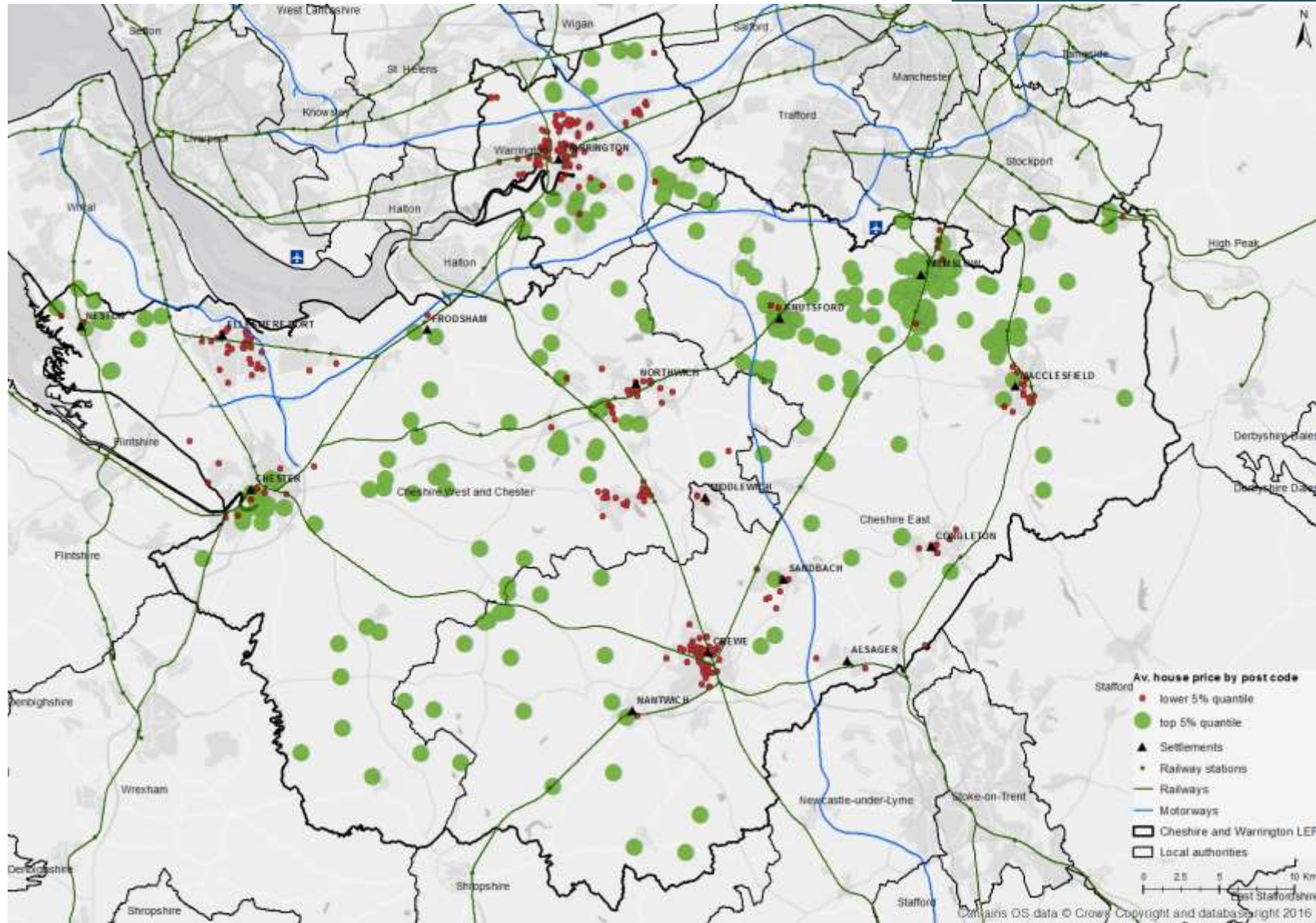
Additional land use and  
property maps

# Average house prices



Source: Metro Dynamics analysis Land Registry and Ordnance Survey data

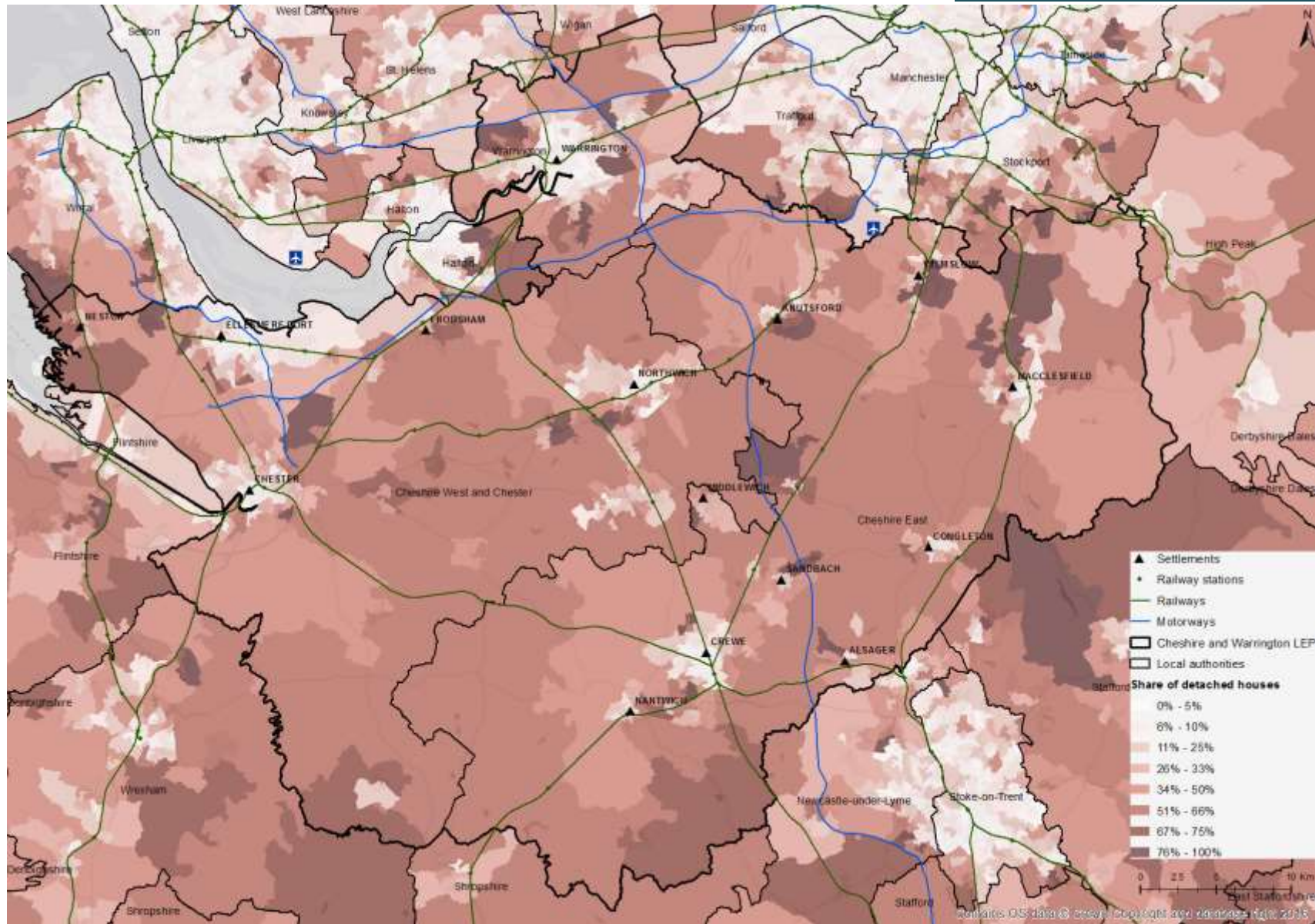
# Highest and lowest house prices by post code



Source: Metro Dynamics analysis Land Registry and Ordnance Survey data

# E. Additional land use and property maps

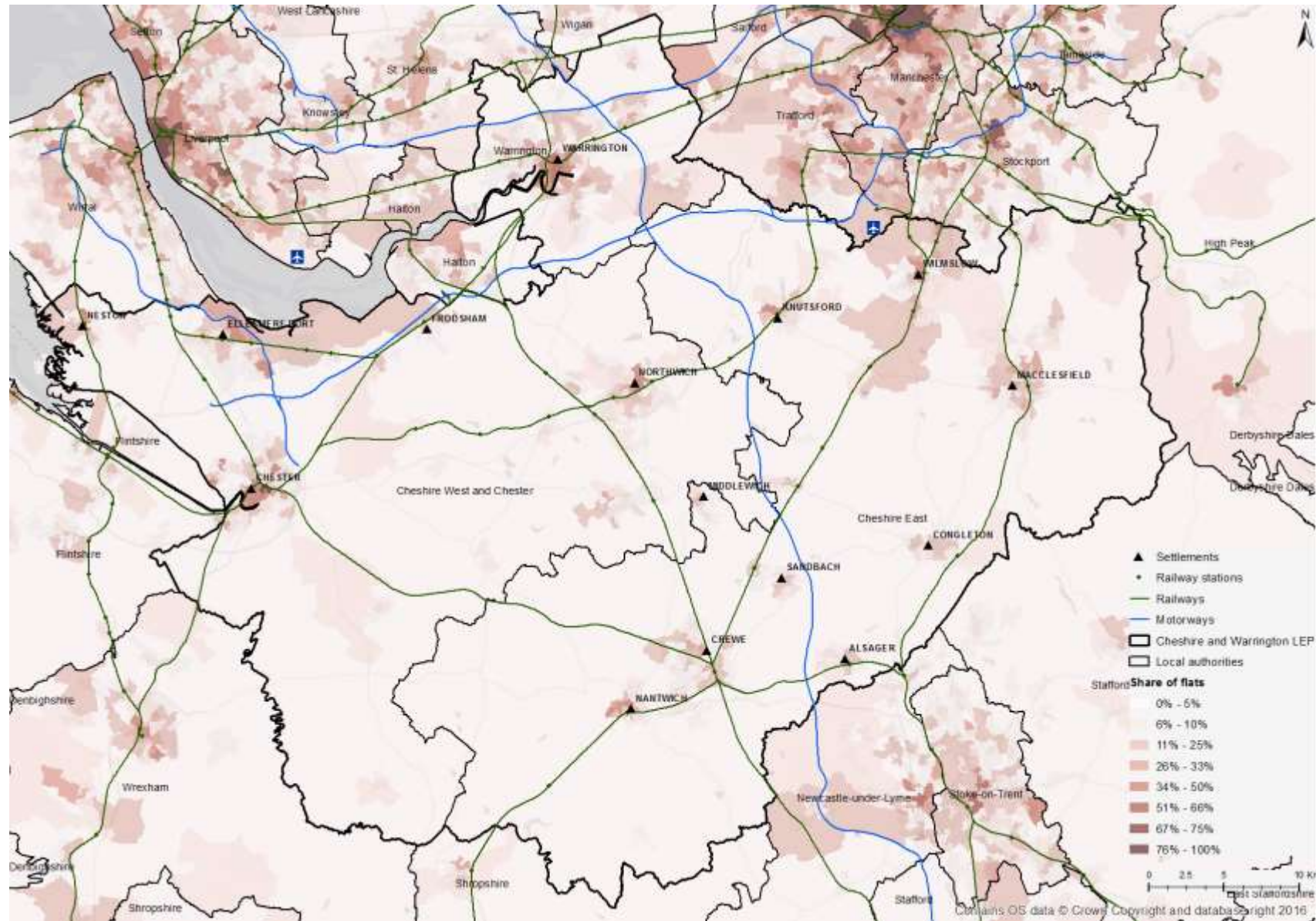
## Share of detached houses



Source: Metro Dynamics  
analysis of ONS Census 2011  
and Ordnance Survey data



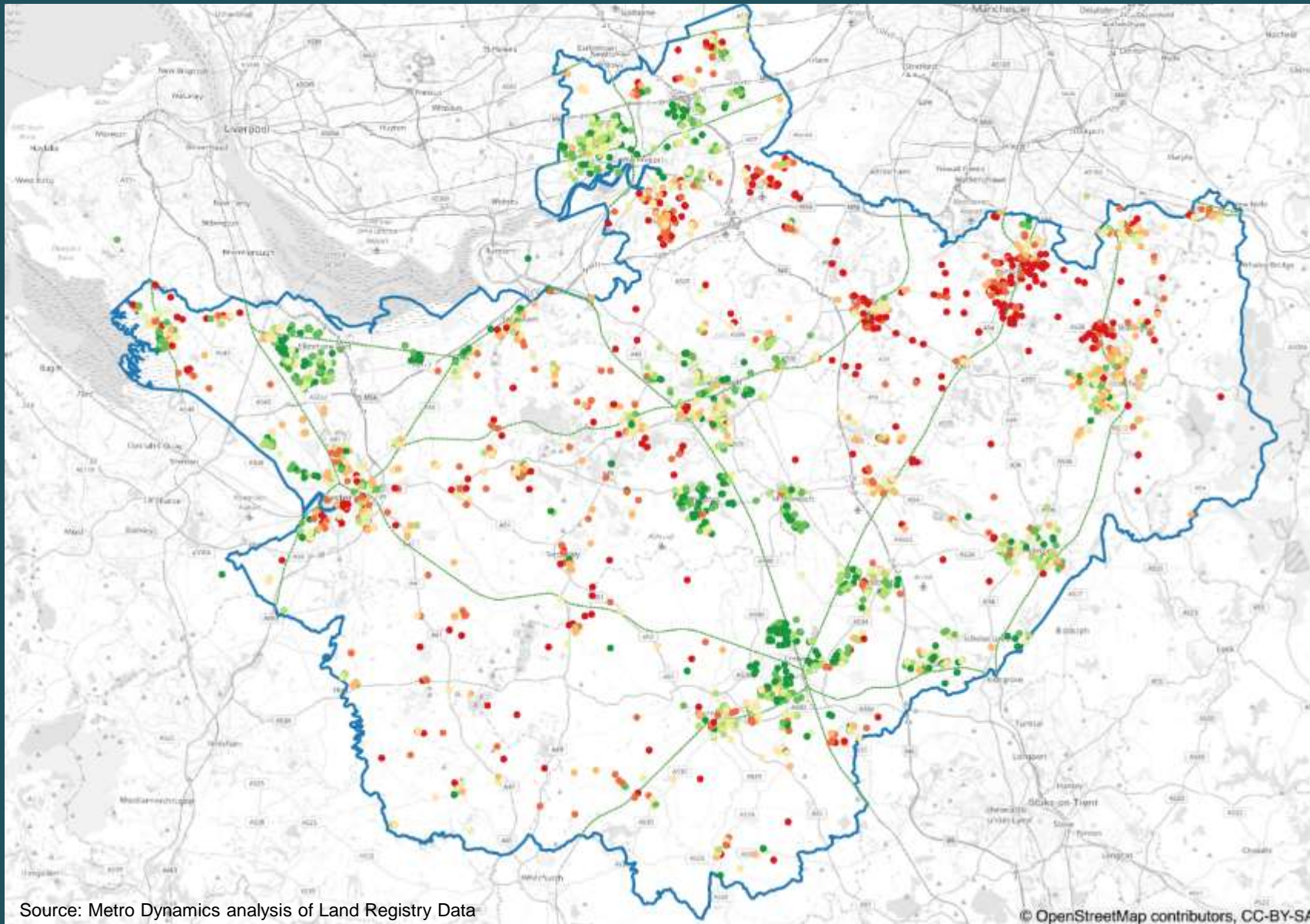
## Share of flats



Source: Metro Dynamics  
 analysis of ONS Census 2011  
 and Ordnance Survey data

# E. Additional land use and property maps

## Detached (2016)



**House prices:  
detached, quantile  
(8 classes)**

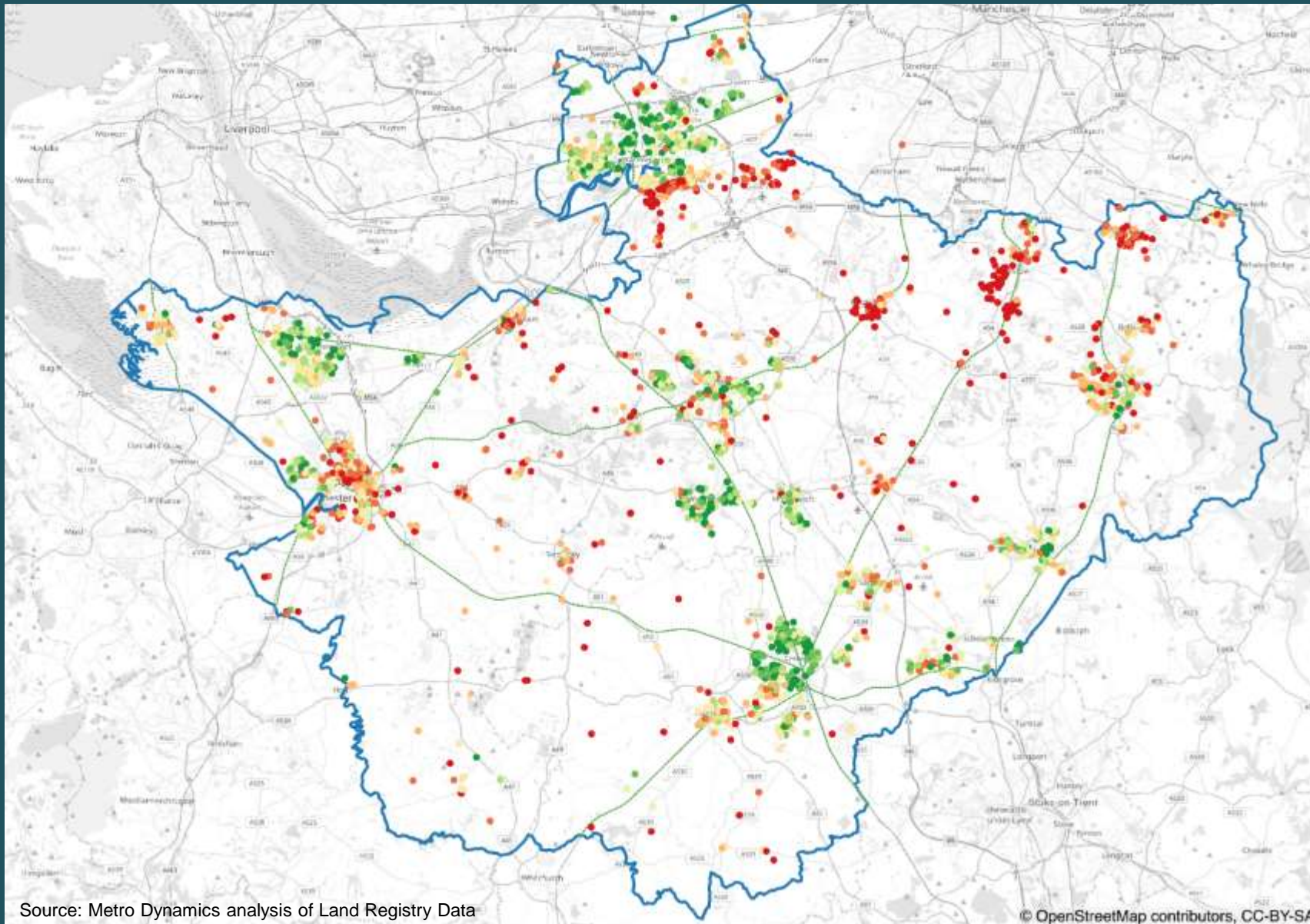
- 71000 - 185201
- 185201 - 222000
- 222000 - 257000
- 257000 - 295000
- 295000 - 344812
- 344812 - 419998
- 419998 - 550000
- 550000 - 4200000

Source: Metro Dynamics analysis of Land Registry Data

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# E. Additional land use and property maps

## Semi-detached (2016)

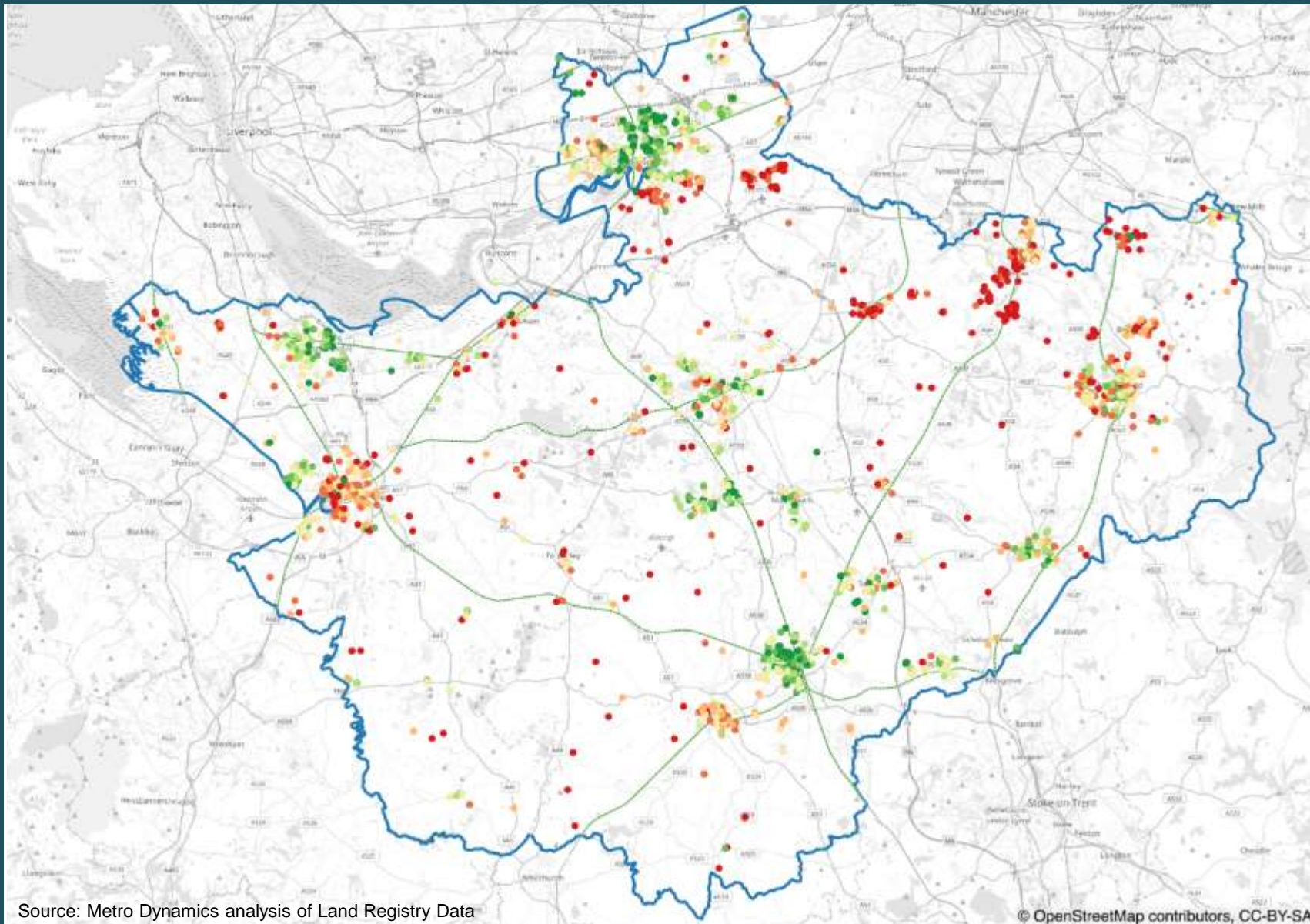


**House prices:  
semi-detached,  
quantile (8 classes)**

- 17325 - 116000
- 116000 - 132500
- 132500 - 149950
- 149950 - 165000
- 165000 - 187500
- 187500 - 222375
- 222375 - 275875
- 275875 - 1725000

# E. Additional land use and property maps

## Terraced (2016)



**House prices:  
terraced,  
quantile (8 classes)**

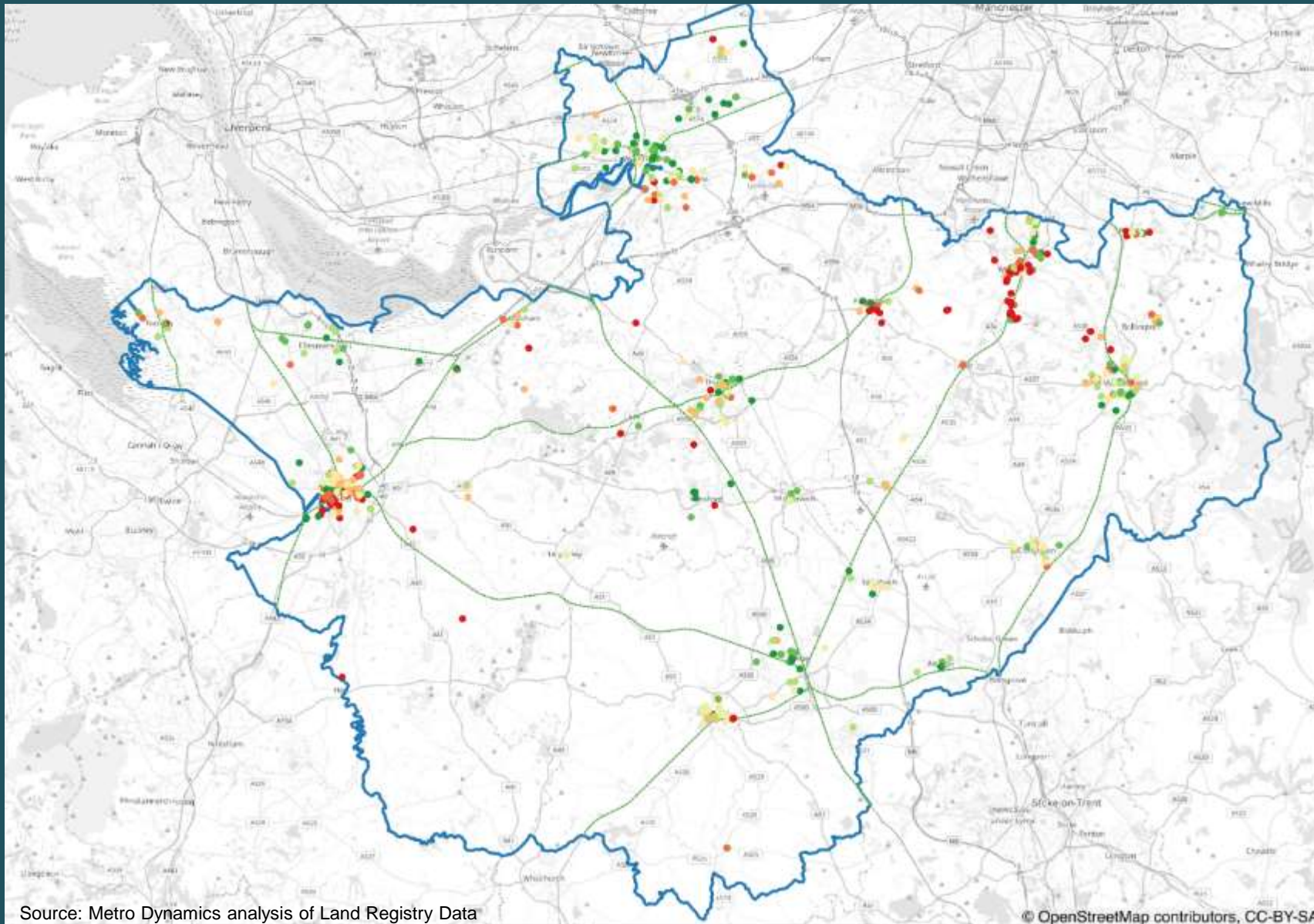
- 9060 - 81219
- 81219 - 97475
- 97475 - 114188
- 114188 - 130250
- 130250 - 155000
- 155000 - 182250
- 182250 - 238250
- 238250 - 285000

Source: Metro Dynamics analysis of Land Registry Data

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# E. Additional land use and property maps

## Flats/Maisonnettes (2016)

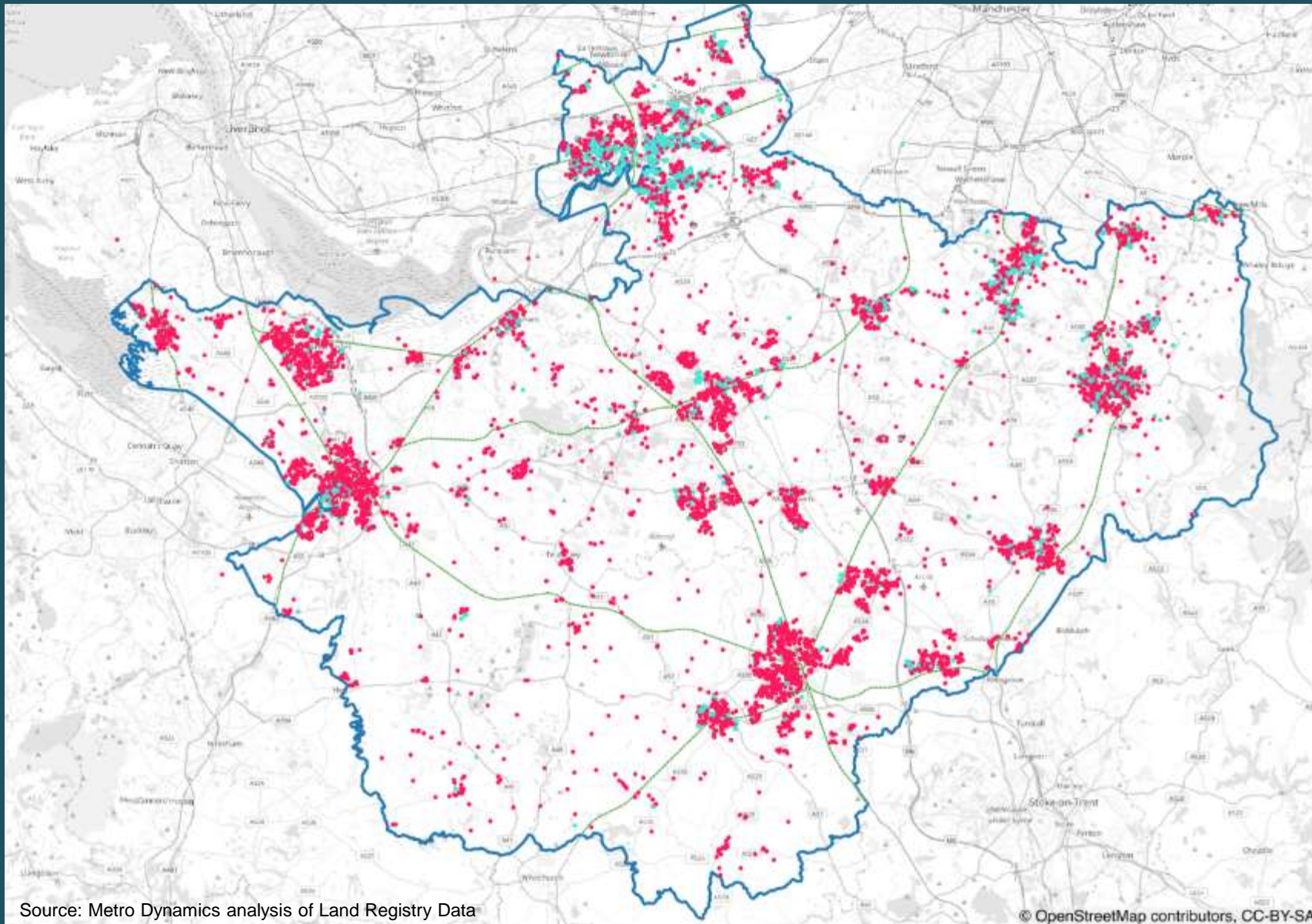


**House prices:  
flats/maisonnettes,  
quantile (8 classes)**

- 16500 - 72967
- 72967 - 85875
- 85875 - 103000
- 103000 - 118250
- 118250 - 134875
- 134875 - 160000
- 160000 - 194981
- 194981 - 745000

# E. Additional land use and property maps

## Tenure (2016)



LR 2016 – freehold and leasehold map

- leasehold
- freehold

Source: Metro Dynamics analysis of Land Registry Data

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