West Midlands Futures

Economic Geographies of the West Midlands



West Midlands Combined Authority

SQW

WM REDI

CITY REDI

automaticknowledge

Contents

Executive Summary..... i
1. Introduction..... 1
2. Mapping origin-destination data..... 6
3. Revisiting the region's economic geography – and looking for evidence of change..... 20
4. Looking forward – drivers of change and how current functional geographies might evolve..... 30
5. Implications for WMCA and its stakeholders..... 44
6. Reflections on method and future research priorities..... 48

Contact:

Stuart Wells

Tel: 0207 391 4100

email: swells@sqw.co.uk

Approved by:

Christine Doel

Director

Date: 28/11/2024

Executive Summary

In spring 2024, West Midlands Combined Authority (WMCA) commissioned SQW, City-REDI (University of Birmingham) and Automatic Knowledge to conduct research to expand and deepen its understanding of the economic geographies of the West Midlands.

Method

Framed by a scoping process (involving consultations with regional stakeholders and with central government), the study sought to **access new datasets** and to use **novel approaches to analysis**.

The study consisted of two **technical workstreams**:

- an analysis of **origin-destination datasets** using a 'bottom-up' approach known as **COMBO**; this is underpinned by a network partitioning algorithm to identify the strongest relationships (identified through modularity scores) between places
- a review of intelligence and data to shed light on **megatrends**, particularly those of most relevance to the West Midlands region.

Insights from the mapping origin-destination data

Four main datasets were analysed across the West Midlands ITL1 region (which is substantially larger than the WMCA area), using the COMBO approach.

Two datasets were used from Census 2011 and 2021: **migration data** provide insights into patterns of migration (within England and Wales) while **travel to work data** capture a perspective on commuting patterns (noting that the data from Census 2021 were influenced by restrictions linked to the COVID-19 pandemic). A dataset published by ONS was used to provide an insight into where consumers are spending money: it captures information on the in-person use of **consumer credit and debit cards (for Visa card transactions only)**. Finally, a dataset capturing **mobile phone users'** travel patterns/times (which in turn indicate the broad purpose of individual trips) was made available by Transport for the West Midlands (TfWM).

Each dataset was analysed using the COMBO approach. Key findings are summarised in Table 1.

Table 1: Headlines from COMBO analyses of different datasets

Data Source	Headlines
Migration (2011 and 2021 Census)	Four fairly distinct areas were identified across and beyond the WMCA region, although with significant overlaps between them: • a large area covering much of Birmingham and Solihull

Data Source	Headlines
	• Dudley and Sandwell • Walsall and Wolverhampton, which appeared to be part of a wider area that extended northwards towards Cannock and Lichfield (on the basis of 2021 data) • Coventry, within a wider area which included much of Warwickshire.
Travel to Work (2011 and 2021 Census)	Three main COMBO areas were identified: • a large area covering much of Birmingham and Solihull (and extending south towards Redditch/Bromsgrove) • the four Black Country areas combined • Coventry and large parts of Warwickshire. The analysis suggested overlapping flows between the first two areas, whilst the third was more distinctive.
Consumer card spending (Visa)	The analysis found that Birmingham, most of Solihull, and a large portion of Sandwell comprised the largest area in terms of spend: it accounted for nearly twice the spending of the next largest area (defined across Coventry and Warwickshire). Other areas were defined around Dudley (also incorporating parts of South Staffordshire), and Wolverhampton and Walsall (which extended into South Staffordshire and up to Cannock).
Mobile network data	Seven areas were identified within (and beyond) the WMCA area, often along key transport corridors. These were: • three areas which converge on Birmingham city centre, one to the north (which extends to Lichfield and Tamworth), one to the south-east (incorporating large parts of Solihull), and another to the south-west (towards Redditch and Bromsgrove) • Coventry and large parts of Warwickshire • three sub-divisions across the Black Country: an area from Dudley extending west into South Staffordshire and Shropshire; Wolverhampton through to Telford and Shrewsbury; and Walsall, Cannock and Uttoxeter.

The findings from the COMBO analyses relate to individual indicators. If these findings are considered in combination – and also in the light of previous studies and analyses – overarching observations can be made in relation to economic geographies across and beyond the WMCA area. These are technical observations driven solely out of data:

- **there is some evidence for polycentricity** – albeit the functional economic area with Birmingham at its core is bigger than the other areas (and more consistently defined) in terms of the spatial extent and (particularly) the volume of flows

- **at high levels of modularity, there are typically four or five functional areas** (depending on the choice of indicator)

- **when different indicators are combined, three key geographies appear to emerge**: the Black Country (which subdivides on certain indicators), Birmingham (with parts of Solihull and Sandwell), and Coventry (with a small part of Solihull and also with Warwickshire).

In addition, two more general points need to be made:

- **'boundaries' are very porous** and **areas may well be 'layered'** such that **particular places are in multiple geographies**

- **there are links outside of the WMCA area across most COMBO areas,** particularly in regard to Coventry and Warwickshire, but

also extending beyond the WMCA area from Birmingham/ Sandwell/ Solihull and Walsall/ Wolverhampton.

Overall – and on many of the indicators – **functional economic relationships are evidently overlapping.** This suggests that **the situation on the ground is very 'messy' and there are no 'hard edges'**.

Drivers of change and how functional geographies might evolve

Looking to the future, there is an extensive literature on **'megatrends'** which are shaping the way people live and work. Four megatrends have been identified as especially important[1]:

- adaptation to climate change and the transition, enshrined in legislation, to net zero carbon
- technological change and digitisation
- demographic trends, and particularly the ageing population
- geopolitical changes.

In practice, these will interact across time and space to influence functional economic geographies, and they will do so in the specific regional context of the West Midlands. This means they will interact in particular ways for different people, households, communities, businesses and places across the region.

Looking ahead, the implications are that:

- for individuals, functional economic geographies will be **more differentiated**; they will be shaped by many factors but most especially age, occupation and income/wealth
- relationships between **home and work** are likely to be more complicated and less predictable, although again, this may well vary by occupation and income
- insofar as future social and economic life depends on in-person interactions, the **transport infrastructure** will continue to be important; however the impacts of **digitisation** will also be seen
- **environmental dimensions** of engaging with work, leisure and key services will have a bearing on functional economic space; this may be driven by changing values and a widespread acceptance of the need to reduce individual carbon footprints.

In the future, functional economic geographies may become **more complicated, more nuanced and more variable** – particularly as relationships between home and work are redefined, and leisure becomes a more important part of the mix. For some individuals, this

[1] Lyons, M., Green, A., Hoole, C. and Pugh, A. (2023) *Megatrends in the Midlands*. Midlands Engine.

will be liberating and empowering, opening up new opportunities and possibilities. For others it could be close to the opposite. Policy and investment decisions will need to be made in this context.

Implications for WMCA and its stakeholders

Policy domains and associated investment decisions

The **transport domain** will continue to be critical. **Transport infrastructure** will be key, including decisions linked to future capital investment (whether in **rail, tramways, roads or cycle paths**). Access to transport services will matter too. There is scope for **ticketing policies** (e.g. reducing costs of travel at certain times/ on certain days) to help shape commuting practices and to encourage people into urban centres for work and leisure.

At the same time, the **digital sphere** will be formatively important. Recognising who does – and does not – have access to it, and who does – and does not – thrive within it, will be shape perspectives on inclusion and well-being.

Policies linked to the allocation and delivery of both **housing sites and employment land** will have an impact over the medium-long term. In time, these will define new economic and residential hubs and they will start to re-define functional economic space.

In parallel, policies linked to **employability and skills** – which relate to individual agency and the extent to which particular people can participate in (and benefit from) opportunities – will matter.

Linked to this, the surge in remote/hybrid working will need to be watched from a policy perspective, noting that the medium-long term implications for **innovation and productivity** are still unknown.

Finally, it will be important to consider **what makes places attractive – for living, working and enjoying leisure.** Given environmental imperatives, more localised patterns of consumption will need to be encouraged.

Spatial basis for economic planning and decision-making

Economic planning and decision-making should recognise functional economic geographies. However, these frequently sit uncomfortably with administrative boundaries – for WMCA, its constituent metropolitan authorities and non-constituent authorities.

For WMCA, there are three immediate implications that merit consideration:

- there is a need to reflect on relationships *across* the four Black Country local authority areas, and also *between* them and Birmingham

- the data show that Coventry is a more distinctive economic area: it has economic ties to its west but its strongest connections lie beyond the WMCA area and particularly into Warwickshire

- the COMBO analyses show that there are significant relationships between constituent local authority areas and their non-constituent neighbours that run in more radial functional economic areas away from the urban cores.

Strengthening the economic ties between places could potentially yield economic benefits. Against this backdrop, WMCA should consider economic relationships *within* and *between* the three functional areas that are identified, but also *beyond* its boundaries.

In practice, relationships take many forms (e.g. through supply chains and knowledge exchange, as well as more measurable aspects of economic life that can be captured in a COMBO analysis). It would also be wrong to consider them as 'all or nothing', particularly as the megatrends unfold and evolve. Levels of porosity and on-the-ground 'messiness' also need to be recognised. Mature polycentric spatial policy needs to reflect all this; done well, it should bring prosperity to the West Midlands and beyond.

Future research agendas

This has been an exploratory technical study, using new datasets in different ways alongside a qualitative reflection on megatrends. In the future, there may be scope to identify additional datasets; build a longitudinal evidence base; investigate links to dynamic processes of economic competitiveness and socio-economic inclusion; and investigate the implications for individual people, households and businesses. We suggest there would also be value in bringing together people from different demographic groups to understand their experiences of functional economic geographies and to help to inform policy and investment responses.

1. Introduction

In spring 2024, West Midlands Combined Authority (WMCA) commissioned SQW, City-REDI (University of Birmingham) and Automatic Knowledge to conduct new research to expand and deepen its understanding of the economic geographies of the West Midlands.

Context for and purpose of the study

Existing research identifies a polycentric and interdependent economic geography – or more properly geograph*ies* – across the West Midlands[2]. The dimensions of these geographies vary according to the socio-economic characteristics (including skill levels) of individuals[3]. However much of the existing evidence has been heavily reliant on transport data; and it has not been informed by either the latest data, nor the breadth of data sources that are potentially available, nor evolving analytical tools.

Within this context, WMCA sought new evidence on current interdependencies and connections between places within the region. It also wanted evidence and insight into how these might evolve over time through macro developments and 'megatrends'. Overall, WMCA sought insights into whether and how its functional economic geography/ies have changed over the recent past; and how it/they might change further looking ahead. Both perspectives were considered to be important in informing current and future policy and investment decisions.

Approach

The study involved genuinely exploratory research. It was framed by a scoping process which involved consultations with regional stakeholders and with central government. The purpose of these was essentially to explore the availability of relevant datasets and – where possible – to secure agreement to accessing those data.

Thereafter the analysis relied on two main technical workstreams:

- **An analysis of origin-destination data through the use of the COMBO approach**: COMBO is underpinned by a network partitioning algorithm. The methodology is fundamentally a 'bottom-up' approach to identifying functional geographies; it explores relationships between places through data, and with no pre-set criteria or assumptions, to identify the strengths of flows and connections. It identifies the strongest relationships across

[2] West Midlands authorities' statutory governance review (2015) underpinned by The West Midlands Functional Economic Market Area Study (2015)

[3] State of the Region (2021)

granular (i.e. micro scale) origin-destination data through modularity scores. A full technical explanation of the COMBO approach is provided in Annex A.

- **A review of intelligence and data to shed light on emerging megatrends and to identify those that are most likely to affect the region (recognising that individual megatrends may well operate in combination):** This workstream relied on qualitative methodologies, particularly a literature review and workshop discussion.

In order to contextualise both the flow data and the megatrends analysis, **socio-economic data** were also considered (although not as the prime focus, noting that WMCA has recently commissioned other work of this nature[4]). These data capture the conditions across the West Midlands that are often both the cause and/or consequence of observed inter-relationships. They also provide some insight into the wide range of circumstances that must frame a forward look and the implications in terms of path-dependency.

Spatial focus

The primary spatial focus for this study has been the WMCA area (defined in relation to the seven constituent metropolitan authority areas). However flows do not stop at administrative boundaries. Therefore for all indicators, data were analysed for the West Midlands ITL1 region. This extends beyond the outer boundary of the WMCA area, so the analysis captures most of the relationships within and beyond it[5].

Report structure

The remainder of this report is structured as follows:

- **Chapter 2** presents the findings from the analysis and mapping of origin-destination data, based on the use of the COMBO algorithm
- **Chapter 3** reflects on previous studies of the West Midlands' economic geography, and it considers the evidence for change in the light of the COMBO analysis
- **Chapter 4** starts to look forward by considering key drivers of change and how these might play out in the West Midlands; and the future evolution of functional economic geographies
- **Chapter 5** sets out the implications of this study's findings for WMCA and other regional partners, recognising that over time, functional economic geographies can be shaped by both policy and investment decisions

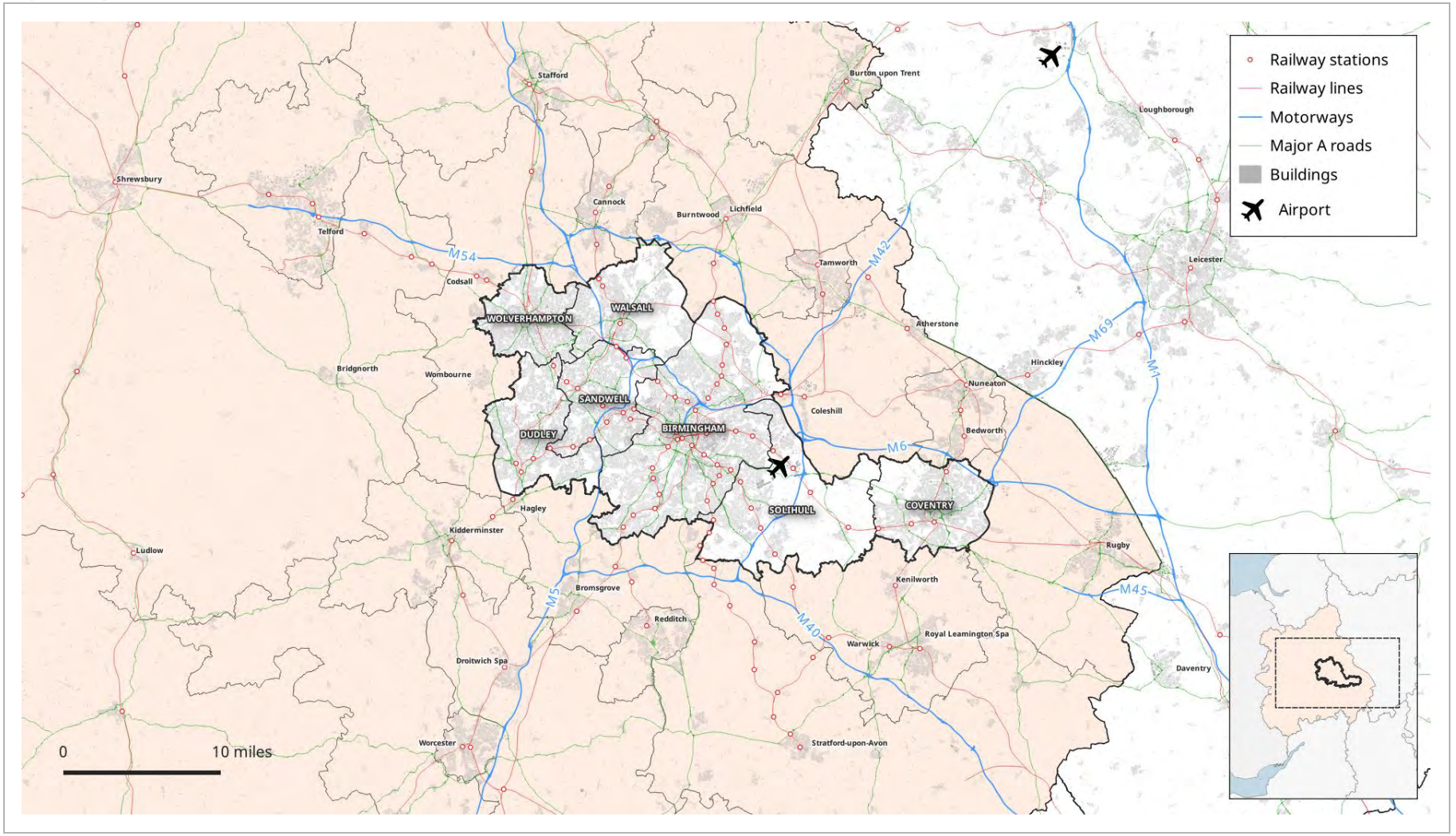
[4] The Economic Intelligence Unit is currently producing an evidence base for WMCA to support the preparation of Place-Based Strategies

[5] In practice, the most likely omission surrounds links to Hinckley (in the East Midlands ITL1 region) which might affect connections with Coventry but this is a minor issue overall

- **Chapter 6** reflects on the study's methodology – both strengths and limitations – and it suggests future research priorities.

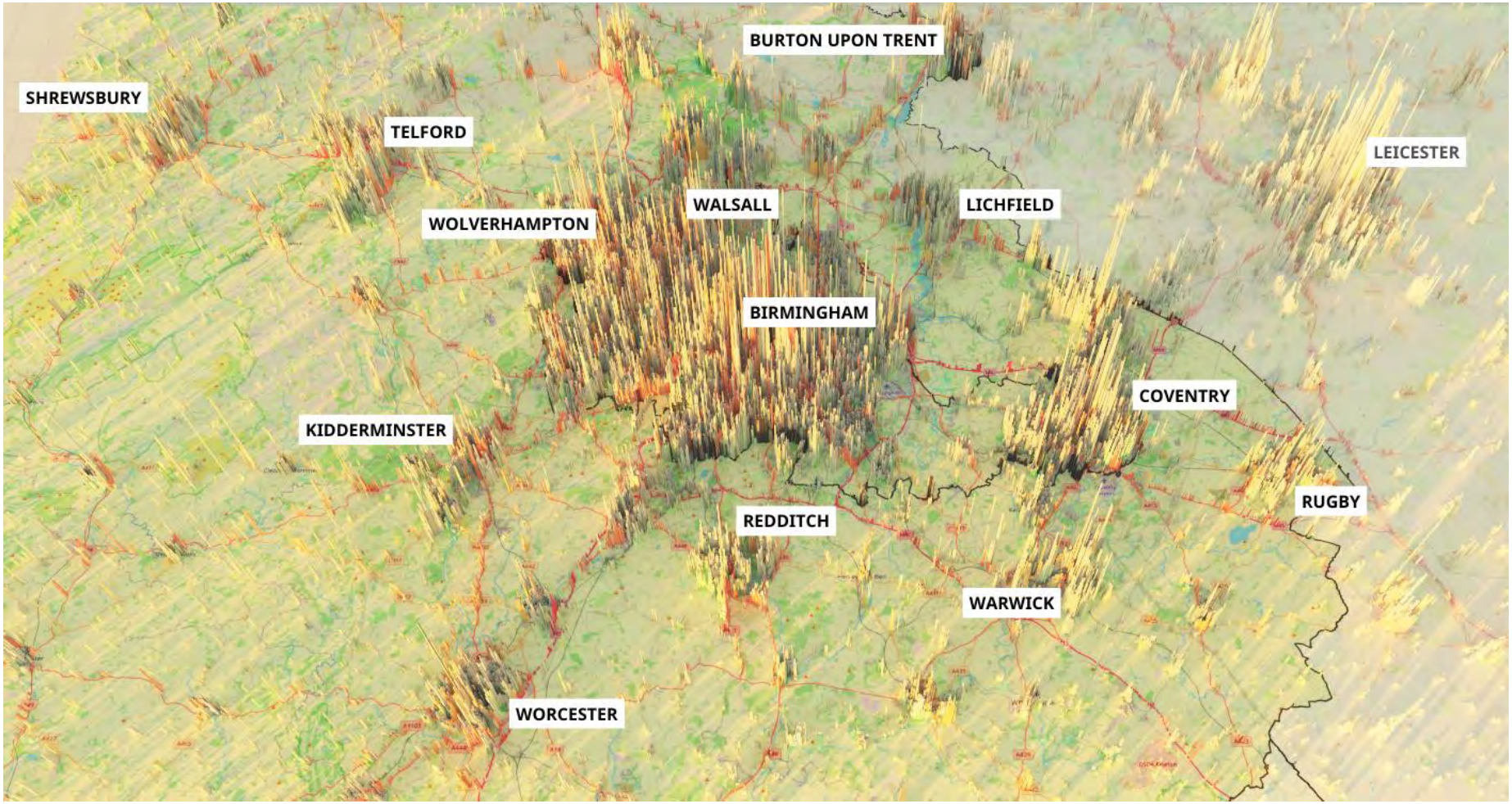
There are three supporting annexes. These provide: further detail on the COMBO methodology (Annex A); contextual regional maps which underpin the narrative in this report (Annex B); and notes from a workshop discussion on megatrends, which generated some of the qualitative evidence informing Chapter 4 (Annex C).

Figure 1-1: West Midlands: contextual map showing the WMCA geography and the West Midlands ITL1 boundary, major settlements and key transport infrastructure



Source: Automatic Knowledge

Figure 1-2: West Midlands population density, 2021



Source: Automatic Knowledge

2. Mapping origin-destination data

Data identification process

The COMBO approach relies on data which:

- capture origins and destinations, and provide an indication of the volumes of flows (scale)
- are available at a spatial scale which is both granular and manageable (ideally MSOA/LSOA, but in some cases, postcode areas).

Some data of this nature are publicly available, but many are not and the team was keen to use new sources where possible. The availability of spatially granular origin-destination data was therefore discussed with stakeholders, and their suitability for analysis was assessed. Key considerations included the timing, coverage and scope of the data, plus pragmatic considerations linked to data access (e.g. data protection issues, the need for permissions/agreements, the resource needed to clean and/or analyse the data) and a view on how useful the insights might be given the overall purposes of this study.

WMCA was keen to identify datasets which might provide an insight into business behaviours, particularly through supply chains. Although qualitative studies have been completed (usually at a sectoral level), no comprehensive datasets (in the form needed for COMBO) were identified through the scoping process.

Datasets used for the COMBO approach

The following datasets were identified and subsequently used for the COMBO approach:

- **Migration**: Detailed migration statistics from Census 2021 provide insights on internal migration between local areas in England and Wales. Data from Census 2011 were also included for comparison.
- **Travel to Work**: Data from Census 2021 provide an insight into commuting patterns. Census 2021 coincided with the COVID-19 pandemic (and therefore commuting patterns were affected by national lockdowns, associated guidance and furlough measures). Census 2011 data were therefore also analysed – both for comparison with 2021 and to allow the findings from COMBO to be compared with those from previous analyses of the same dataset.
- **Consumer card spending**: These are newly-released data from ONS which show consumer spending habits at a local level – specifically the origins of consumers for merchants at postal district levels (for Visa card transactions only). The data relate to 2023.

- **Mobile network data**: Mobile-phone generated origin-destination GeoMND (mobile network data) show where mobile phone users are travelling to/from and provide an indication of the time spent in that place (which can be processed to identify whether a journey is for work or other purposes, based on dwell time). These data were provided to the study team by Transport for West Midlands (TfWM).

Findings from the COMBO analysis

1: Migration

Migration data summarise the characteristics of people or households who have moved within England and Wales, or from another country into England and Wales, during the year before a Census. They identify those people who have changed their address (or moved house) during the year before the Census (e.g. buying/selling homes, movements between private/social rent, children leaving their parental home etc.).

As noted already, the 2021 Census took place mid-pandemic. The overall volume of migration flows was lower in the year before Census 2021 (owing to lockdown restrictions) than a decade earlier (before Census 2011).

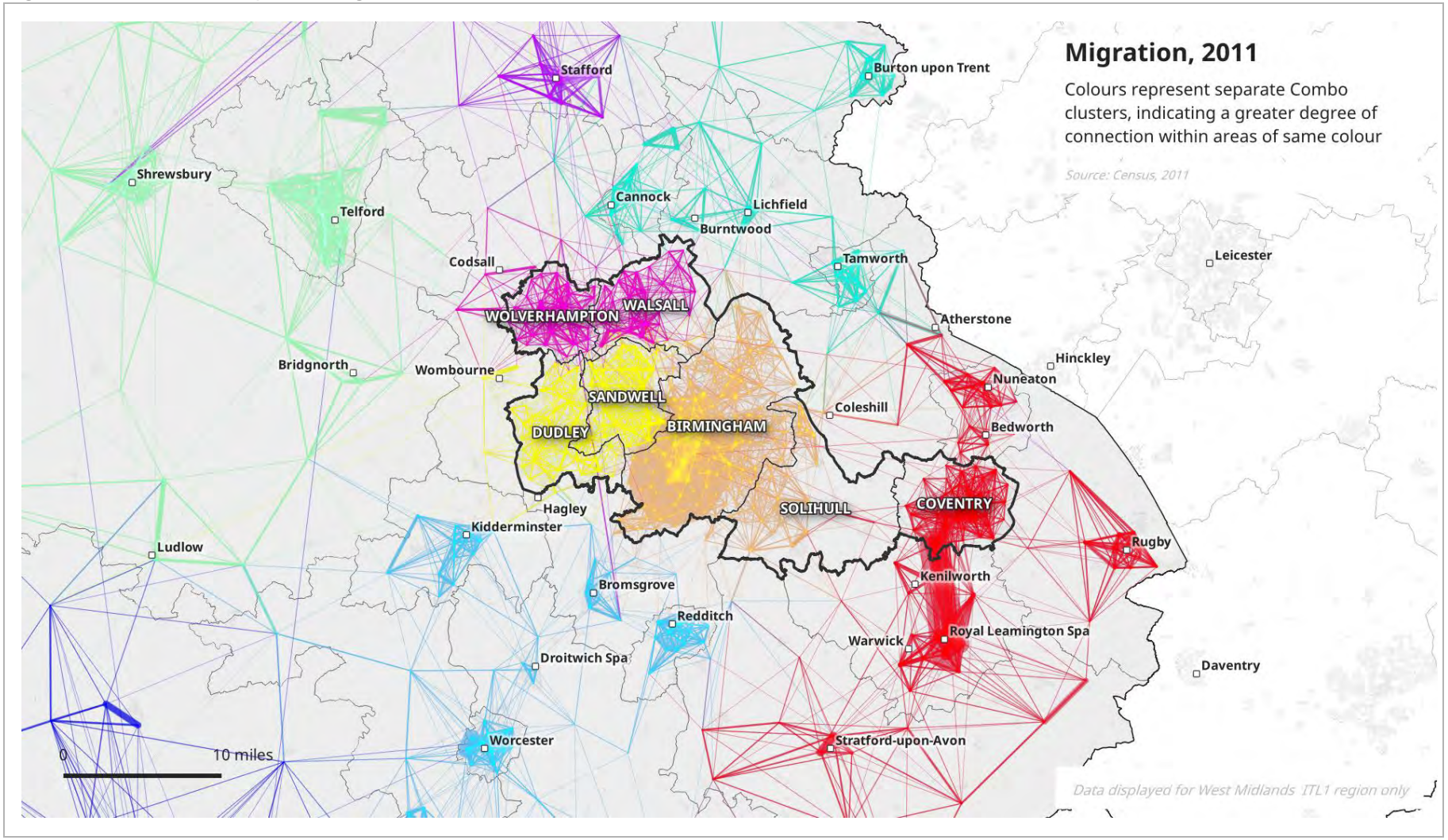
An analysis of migration data from both Census 2011 and Census 2021 (at MSOA levels) using the COMBO approach pointed to four fairly distinct areas across and beyond the WMCA region. Broadly these are:

- a large area covering much of Birmingham and Solihull
- Dudley and Sandwell
- Walsall and Wolverhampton, which appeared to be part of a wider area that extended northwards towards Cannock and Lichfield (on the basis of 2021 data).
- Coventry, within a wider area that included large parts of Warwickshire.

Between these data-driven areas are some significant apparent overlaps – notably between the first and second broad areas identified above.

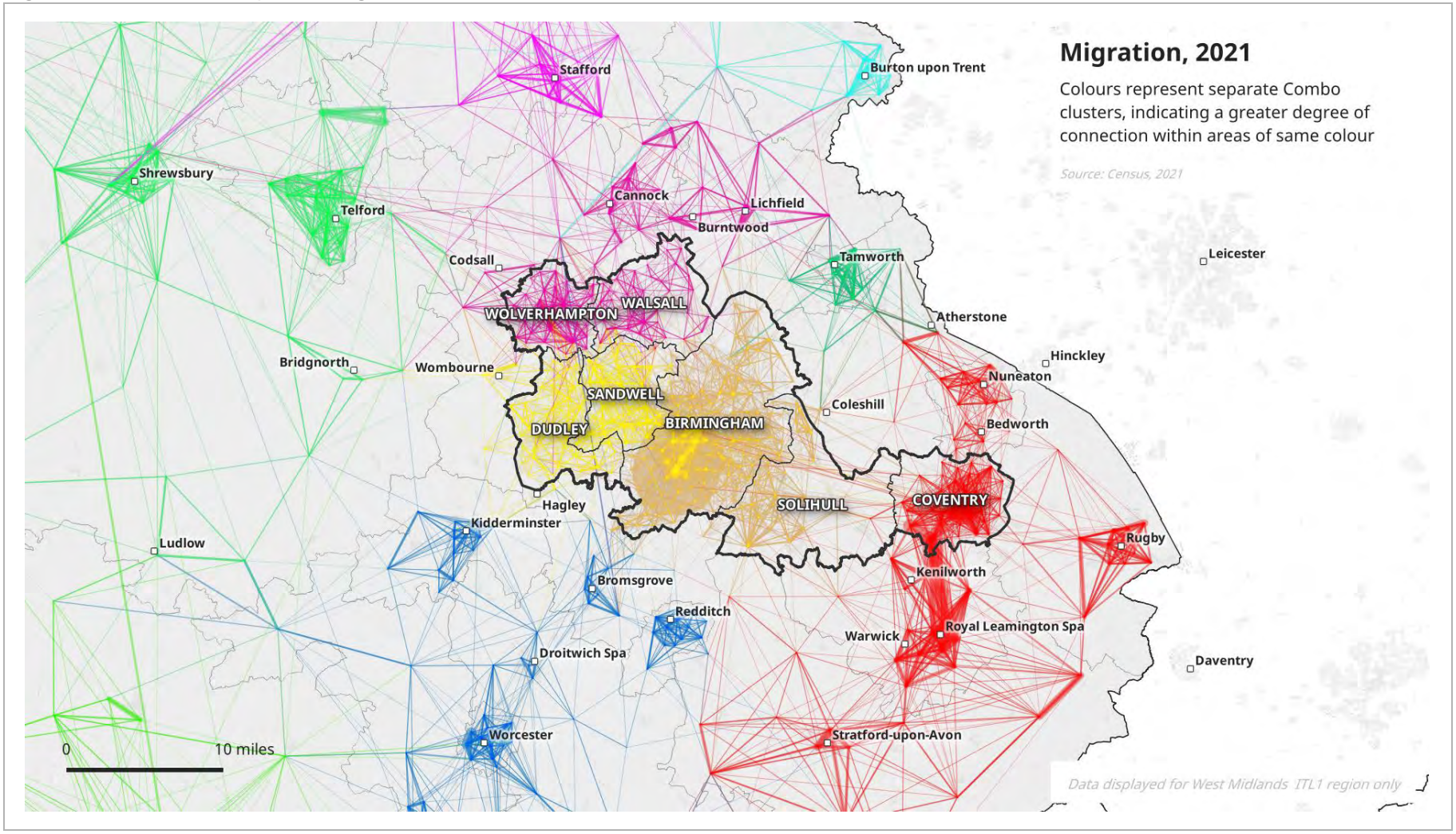
There is a further set of COMBO areas nearby, including one to the north of Birmingham (broadly around Tamworth), one to the west (including Telford and large parts of Shropshire) and another to the south of Birmingham (Redditch, Bromsgrove, plus Worcester and Kidderminster).

Figure 2-1: COMBO Analysis of Migration Data, 2011



Source: Automatic Knowledge analysis of Migration Data, Census 2011

Figure 2-2: COMBO Analysis of Migration Data, 2021



Source: Automatic Knowledge analysis of Migration Data, Census 2021

2: Travel to work

2021 Census

Because the 2021 Census took place mid-pandemic, the incidence of home working was high everywhere: at the time: 39% of people in employment were working from home across the WMCA area[6]. In 2011, the figure was 13%. Two comments are important in this context:

- the shift in the pattern of homeworking was accelerated and exaggerated by the pandemic but it was not fundamentally caused by it: working patterns were anyway evolving with more hybrid working, facilitated by substantial technological change (and particularly digital connectivity) and changing business models and attitudes (among employers and workers alike)
- there was substantial variation across the region in the scale of homeworking in 2021: it was fully 15 percentage points higher in Solihull than Wolverhampton.

An analysis of travel to work data from Census 2021 (at MSOA geographies) using the COMBO method identifies three fairly distinct areas across (and beyond) the WMCA region. Broadly these are:

- a large area covering much of Birmingham and Solihull (and extending south towards Bromsgrove)
- the four Black Country authority areas combined
- Coventry and large parts of Warwickshire.

However, it also indicates that the 'boundary' between the first two areas was characterised by overlapping flows. Conversely, the eastern boundary of the Birmingham/Solihull area appeared to be more clearly defined.

There are further COMBO areas nearby, including one to the north of Birmingham (broadly Burton-on-Trent, Lichfield and Tamworth), and another to the south of Birmingham (Redditch, Bromsgrove, Worcester and Kidderminster).

2011 Census

COMBO analysis was also completed on 2011 Census data. The scale of the flows was substantially larger (because of the number of people working from home was much less).

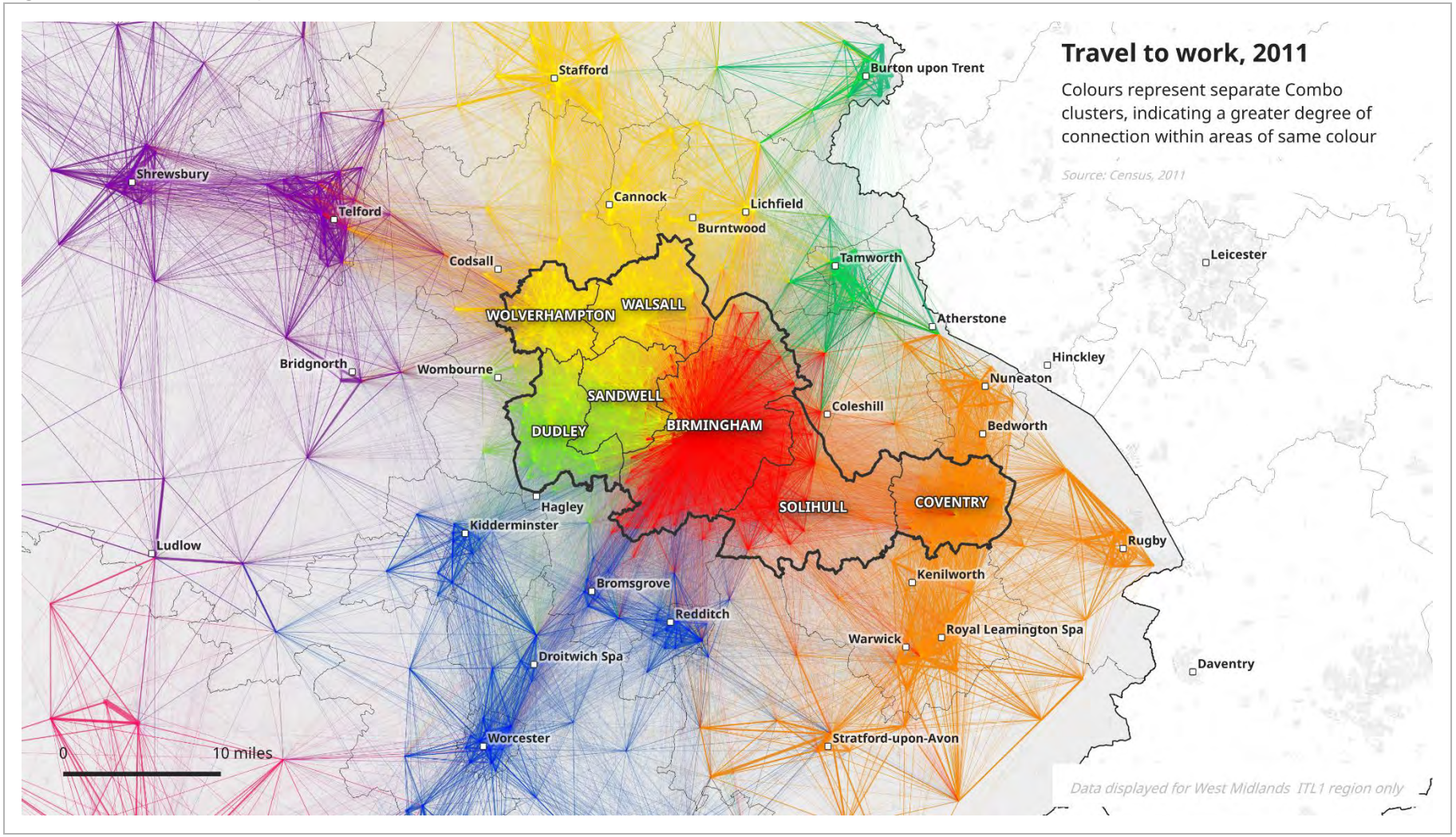
Despite this, the geographies identified by the COMBO analysis were broadly similar, with distinctive clusters around Birmingham/ Solihull, Coventry and much of Warwickshire, and the Black Country.

[6] Note that not all of those working from home in the WMCA area would be working for organisations based within the WMCA area

The main differences between 2011 and 2021 were that:

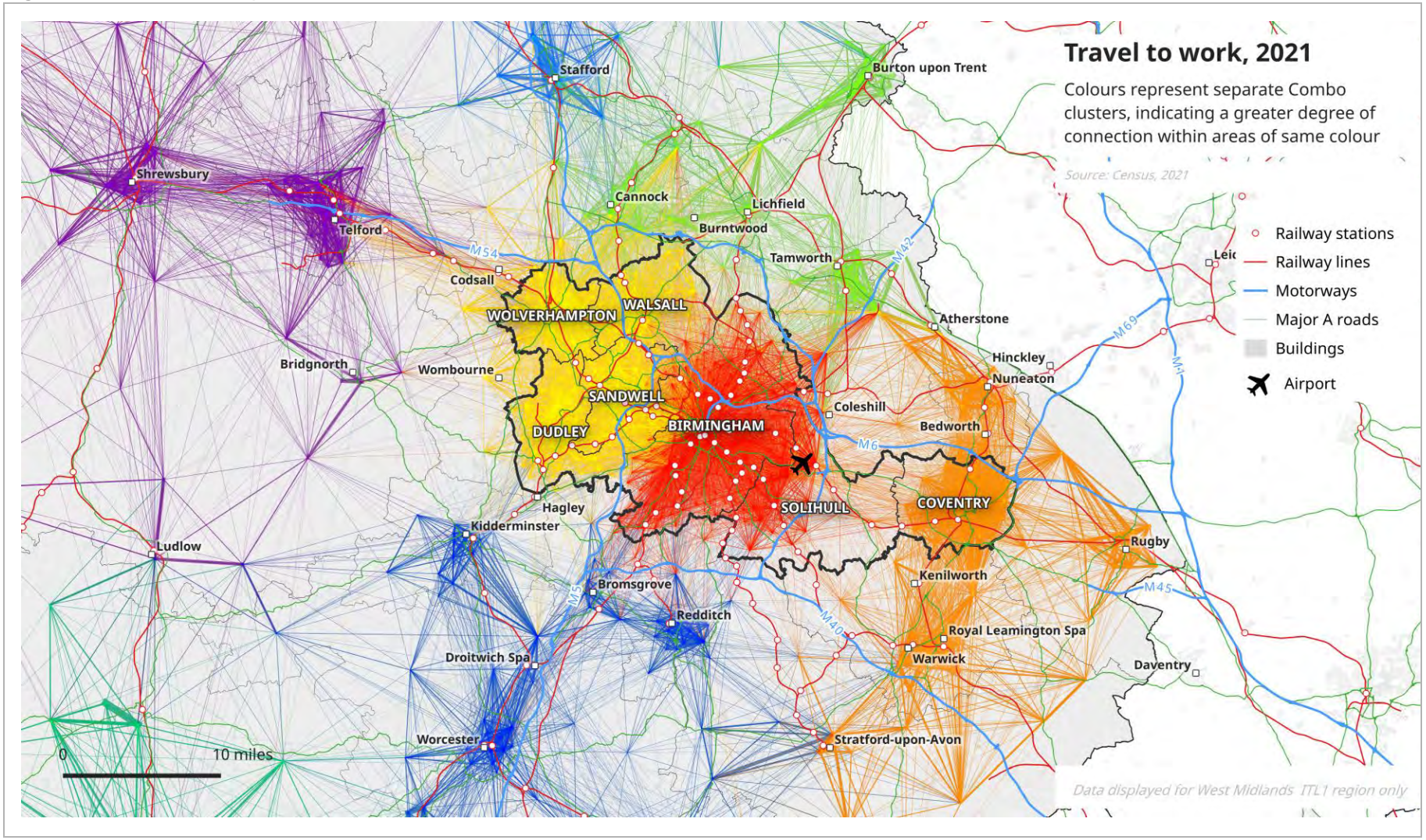
- in 2011, the four Black Country authority areas were divided into two, with one area containing Walsall and Wolverhampton, and another containing much of Dudley and Sandwell
- in 2011, the spatial extent of some COMBO areas appeared larger than in 2021 – e.g. the area covering Walsall and Wolverhampton also included areas to the north. This does not imply that many people were commuting from the furthest away points within particular COMBO areas; instead these areas were effectively multi-centred commuter zones which were drawn together in different spatial groupings through COMBO.

Figure 2-3: COMBO Analysis of Travel to Work Data, 2011



Source: Automatic Knowledge analysis of travel to work data, Census 2011

Figure 2-4: COMBO Analysis of Travel to Work Data, 2021



Source: Automatic Knowledge analysis of travel to work data, Census 2021

3: Consumer card spending

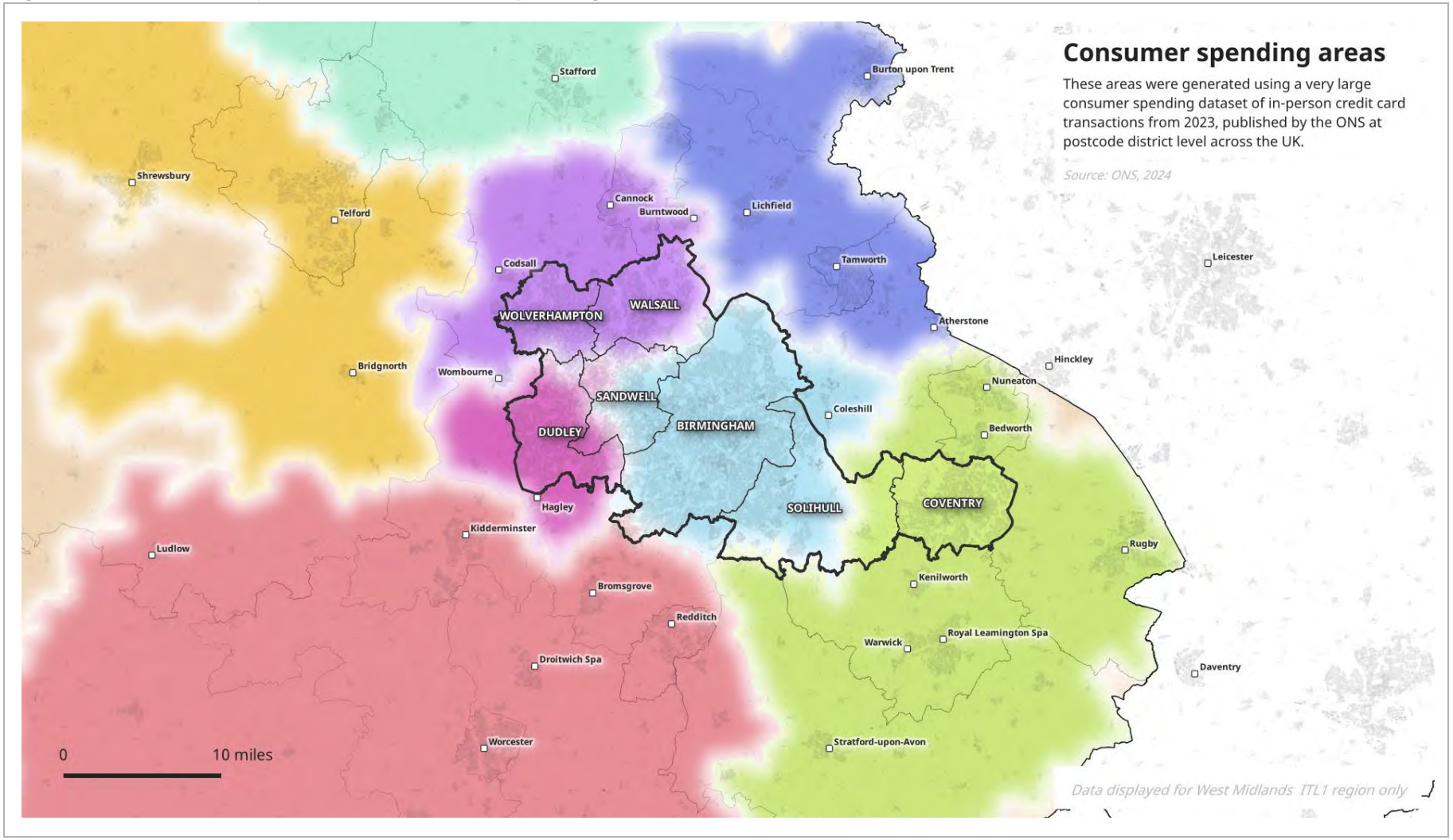
Data on consumer card spending have been recently released by ONS. These record consumer spending habits at a local level over the four quarters to June 2023. Spatially, they are based on postcode areas (e.g. CV1, B5, WV10) – and they capture information on the home of the consumer and the location of a merchant. The data show transactions for Visa card users, and exclude online shopping. In 2022, 59% of payment transactions in the UK were made using cards, 14% using cash and 10% using direct debit.

The COMBO analysis points to four spatial clusters cutting across/beyond the WMCA area. Birmingham, most of Solihull, and a large portion of Sandwell comprise the largest area in terms of spend: it accounts for nearly twice the spending of the next largest area (defined across Coventry and Warwickshire). Other COMBO areas are defined around Dudley (also incorporating parts of South Staffordshire), and Wolverhampton and Walsall (which extends into South Staffordshire and up to Cannock).

These groupings point to:

- the strength of Birmingham city centre's offering, with its area of influence being larger than was seen in the COMBO areas for commuting and migration
- the distinctiveness of the area comprising Coventry and much of Warwickshire; this has clear hubs in Coventry, Nuneaton, Warwick/ Leamington Spa and Stratford-upon-Avon
- the footprint of Dudley which extends beyond the WMCA area and may reflect the sub-national role of Merry Hill
- the wider area linked to Wolverhampton and Walsall which extends to the north and west.

Figure 2-5: COMBO Analysis of Consumer Card Spending, 2023



Source: Automatic Knowledge analysis of consumer card spend data, ONS

4: Mobile network data

Mobile phone generated origin-destination GeoMND (Mobile Network Data) show where mobile phone users are travelling to/from and provide an indication of the duration of dwell time. From this information it is possible to establish the likely purpose of individual journeys[7].

In principle, a range of insights can be generated through the mobile network data. Given its complexity (with over 25 million rows of data), we focused on data that fill an evidence gap. Although mobile network data can in principle be used to explore commuting patterns, we analysed 'home-other' movements (as commuting patterns were covered by Census data). 'Other' includes any destination which is not work or home (inferred by destinations in which an individual spends a shorter period of time); this could include retail, leisure and recreation activities.

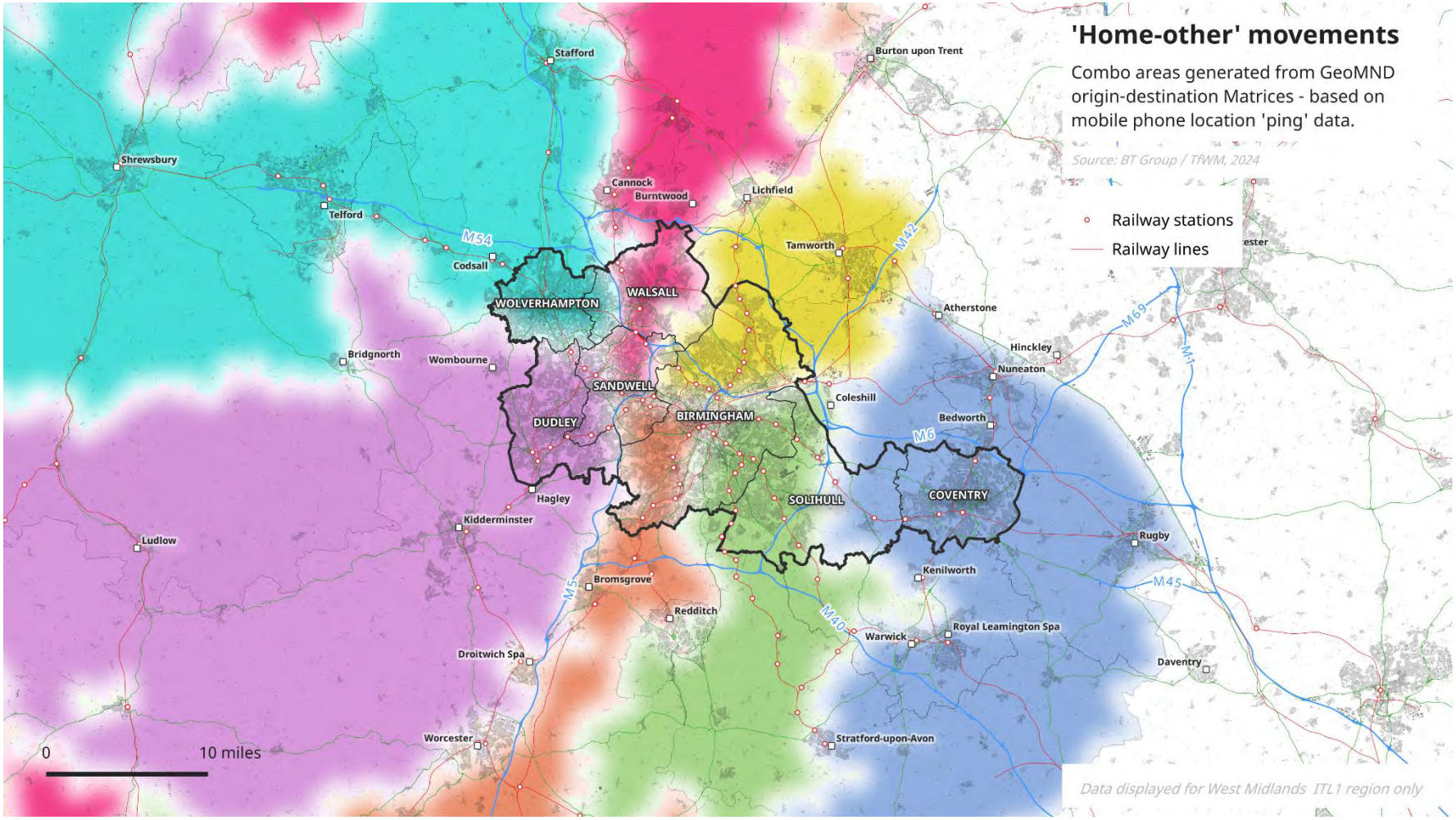
The COMBO analysis leads to the identification of seven areas within (and beyond) the WMCA area, many of which exist along key transport corridors. These are:

- three areas which converge on Birmingham city centre, one to the north (which extends to Lichfield and Tamworth), one to the south-east (incorporating large parts of Solihull), and another to the south-west (towards Edgbaston and Bromsgrove). Much of this follows existing road and railway infrastructure; e.g. A38/Cross City Line to Lichfield (in the north) and A38/M5 to Bromsgrove and Redditch (to the south), and the M40/A45/A34/Chiltern Main Line route towards Solihull and Stratford-upon-Avon.
- Coventry and large parts of Warwickshire
- three sub-divisions across the Black Country
  - an area from Dudley extending west into South Staffordshire and Shropshire
  - Wolverhampton through to Telford and Shrewsbury
  - Walsall, Cannock and Uttoxeter.

The corridor geographies may indicate that people are more inclined to travel greater distances to access leisure and recreation activities. They also point to the influence of the existing infrastructure, particularly the road and rail networks.

[7] It is recognised that this is not a perfect methodology: individuals could spend a long period of time in one location for different purposes. However it is the approach devised by the data provider.

Figure 2-6: COMBO Analysis of Mobile Network data for 'Home-other' movements, 2023



Source: Automatic Knowledge analysis of GeoMND (Mobile Network Data), 2023

Synthesis of the COMBO analysis findings

The analysis presented and mapped above provides important insights into functional economic relationships across the West Midlands, based on the COMBO algorithm. Looking across the different indicators, there are nuances and inconsistencies, but considered in the round, they point to a set of data-driven observations:

- **The footprint of Birmingham generally incorporates parts of Solihull and sometimes also Sandwell but within the WMCA area, it appears to be larger on some indicators (notably consumer spend) than others (e.g. migration or commuting).** This could perhaps point to its role as England's second city, linked to changing patterns of leisure and consumption: it is a national hub in these terms with major attractions like the NEC, sports venues like Edgbaston, Villa Park and St Andrew's, and major city centre amenities and functions.

- **The Black Country is generally subdivided but in varying ways on different indicators, and for parts of it, there are strong links to the east.** The Black Country is identified as a single functional area on one dataset only; this was commuting data from 2021, which we know was affected by restrictions/ interventions linked to the pandemic. On some datasets (e.g. migration), the COMBO algorithm defines most of Wolverhampton and Walsall as one area; on others (e.g. mobile phone data), they are largely separate. Sandwell and Dudley sometimes appear together (e.g. migration), but on some indicators, large parts of Sandwell appear to have stronger links with Birmingham. This suggests that on the basis of the COMBO analyses, the Black Country might best be understood as a series of generally smaller functional economic areas of variable geometry, and with strong links to the east (e.g. nearly 50,000 people commute from the Black Country into Birmingham for work). This is especially true in the case of Sandwell.

- **Further east, the COMBO algorithm suggests that Coventry has consistently strong links with Warwickshire (north and south), and with the east of Solihull.** This pattern is evident across all of the origin-destination data that have been analysed, and the links north and south into Warwickshire appear especially strong.

- **The importance of transport corridors is apparent on some indicators**. Transport corridors are most clearly in evidence through the lens of mobile phone data which capture links between home and other (i.e. non-work) activities. This indicator leads to the most granular segmentation of the WMCA area whilst still consistent with high levels of modularity: seven different sub-areas are identified and all seven are spatially extensive, extending beyond the WMCA boundary.

- **On many of the indicators, functional economic relationships are evidently overlapping – suggesting the situation on the**

ground is very 'messy' and there are no 'hard edges' – although the picture also varies. This is clearly apparent across Birmingham, west Solihull and the four Black Country areas (see, for example, the commuting data). Conversely, the data suggest that Coventry has a weaker economic relationship with the rest of the WMCA area. In part, this may well be a function of the geography of the Meriden Gap (part of the West Midlands Green Belt, separating Coventry from the rest of the West Midlands conurbation), and also the location of Birmingham International Airport (which perhaps acts, in some ways, as a 'barrier' as well as a destination in its own right). It is also consistent with the contextual map showing population density (and provided in Figure 1-2).

3. Revisiting the region's economic geography – and looking for evidence of change

For WMCA, the observations set out in Chapter 2 are useful if they confirm existing interpretations of the area's economic geography, but they are especially important if they start to question (or at least add further dimensions to) established narratives.

Table 3-1 (overleaf) summarises the headlines from various past depictions of the region's economic geography. In considering the insights from Table 3-1, three overarching points are important:

- the analyses were **completed between 2006 and 2023 – a period of 17 years.** This is sufficient elapsed time for some level of change to be expected, particularly given technological advances, industrial restructuring, societal shifts and (planned or actual) infrastructural investment (e.g. in relation to West Midlands Metro and HS2)
- all of the analyses were **undertaken in a particular (but varying) political and institutional context.** This will have influenced how the analyses were advanced and how the findings were drawn together and reported
- partly as a result, **the territory labelled 'the West Midlands' has had different definitions at different points in time**[8] (so comparisons need to be made carefully).

Two important questions however can be posed in relation to these past investigations in the light of the COMBO analysis presented in Chapter 2:

- does the reworking of data through the (bottom-up) COMBO approach support or challenge the conclusions that were drawn from the same data on the basis of older and more established top-down methodologies?
- alongside the consequences of different methodologies, is there any real evidence of change in the region's economic geographies in the light of newer and different data?

We address these two questions in turn.

[8] The two early studies were completed in the era of the regional development agency and regional assembly, and within them, the West Midlands was understood in relation to what is now the ITL1 region. The studies from 2015 and 2020 related principally to the area administered by three local enterprise partnerships. The final study is focused on the Midlands as a whole (so two ITL1 regions).

Table 3-1: Previous depictions of the West Midlands' economic geography – in reverse chronological order

Study	Year	Key Findings	Key data sources
The role of the Midlands Engine in the British Economy[9]	2023	• The report analyses commuting patterns across the Midlands Engine area (covering East Midlands and West Midlands ITL1 areas) to find that the Midlands Engine comprises a number of distinct urban economies rather than one whole economy. It identifies little overlap in urban labour markets, as is seen elsewhere in the UK and Europe, with those identified in the West Midlands being Birmingham, Coventry, Telford and Stoke (this is similar to the Primary Urban Areas (PUAs) used elsewhere to define cities and large towns, with Birmingham PUA including Birmingham, Dudley, Sandwell, Solihull, Walsall and Wolverhampton). • The report finds that the Midlands Engine's cities and large towns do not offer the benefits of agglomeration as they should, with productivity performance well-below expected levels (given the size of population within the catchment area). The report concludes that this is partly attributable to the relatively small size of Birmingham city centre given its surrounding population; Birmingham's urban area is almost three times the size of Leeds in terms of population, but the city centre economies are similar in size.	• Industrial Specialisation • Commuting data • Service and manufacturing export data
State of the Region 2020[10]	2020	• The report identifies the three-LEP area (Greater Birmingham and Solihull, Black Country, Coventry and Warwickshire) as a coherent functional economic area. The foundations for this are the five Travel-To-Work Areas (TTWAs) defined using commuting data from the 2011 Census, which broadly map onto the three-LEP area. • The report recognises that Coventry is to some extent separate from the rest of the city-region. There are closer links between Birmingham and the Black Country, together with neighbouring areas of Redditch, Bromsgrove, Cannock, Lichfield and Tamworth, with Coventry and Warwickshire sitting separately. • Commuting flows vary by gender, age, hours of work, mode of travel, occupation, and qualification, and this shapes economic geographies: ➢ analyses of commuting flows for highly qualified workers points to two local labour market areas: one encompassing Birmingham and the Black Country and one covering Coventry and Warwickshire ➢ part-time workers, low-paid workers and those who have to organise work trips along with trips for other purposes tend to be much more restricted in their travel horizons and employed in jobs available in their local area.	• Travel to Work Areas (derived from commuting data in Census 2011)

[9] All Cylinders: The role of the Midlands Engine in the British Economy, Centre for Cities, 2023; Available at: https://midlandsengine.org/wp-content/uploads/2023/05/All-cylinders-The-role-of-the-Midlands-Engine-in-the-British-economy.pdf

[10] State of the Region, West Midlands Combined Authority, 2020; Available at: The West Midlands Economic Geography (wmca.org.uk)

Study	Year	Key Findings	Key data sources
West Midlands Functional Economic Market Area Study[11]	2015	• The report identifies the whole West Midlands as a functional economic market area (FEMA) within a broader and even better defined functional economic market area covered by three Local Enterprise Partnerships (LEP) (Greater Birmingham and Solihull; Black Country; and Coventry and Warwickshire). • The analysis of individual travel to work patterns showed a high level of inter-connectivity across the seven metropolitan authorities (which was considered to give a positive rationale for collaborative working through a stronger governance arrangement) but a higher level of connectivity across the three-LEP area.	• Travel to Work Areas • Migration data • Industrial Specialisation
Regional Spatial Strategy for the West Midlands[12]	2008	• The report identifies a growing band of residential attractiveness in the West Midlands (two key bands running from the periphery of Stoke-on-Trent to Shrewsbury and in a broken sweep from southern Coventry to Hereford) which is separated from the main areas of economic activity in the MUAs. Conversely, traditional industrial activity is often in areas that are not attractive, are losing population and could be considered as "vulnerable". • The new service and knowledge based economy is reinforcing some traditional economic centres with particular concentrations of knowledge based activity in Birmingham and Coventry. However, a new pattern is also evident in a broad sweep around the south of the Region, matching to some extent the Coventry to Hereford area referred to above.	• Sectoral composition
The Functioning Economic Geography of the West Midlands[13]	2006	• The West Midlands (defined in this context as the ITL1 area) has been developing into a polycentric economy. There is one distinct 'conurbation' (Birmingham, Black Country and Solihull) and perhaps the appropriate descriptor is a region that contains a major conurbation. Separately there are two further distinct geographies identified in the West Midlands ITL1 area; a second conurbation (North Staffordshire), and the City of Coventry (and surrounding areas), each of which have their own distinct economic linkages and dependent commuters. • The report suggests that the spatial patterning of economic activity in the West Midlands region is shifting away from Birmingham and the Black Country, and it is expanding to a belt that encircles the conurbation (including more activity to the east, e.g. Solihull/Birmingham Airport).	• Skill levels • New firm formation • Sectoral composition

[11] West Midlands Functional Economic Market Area Study, Author Unknown, 2015; Available at: PowerPoint Presentation (stratford.gov.uk)
[12] Regional Spatial Strategy for the West Midlands, Government Office for the West Midlands, 2008; Available at: https://www.redditchbc.gov.uk/media/jmopk3x3/cdr6-8-regional-spatial-strategy-for-the-west-midlands.pdf
[13] The Functioning Economic Geography of the West Midlands Region, West Midlands Regional Observatory, 2006; Available at: Microsoft Word - Functioning-Economic-Geography_V1.0_Report_SM (birmingham.ac.uk)

Does the use of the COMBO approach lead to different conclusions (from the same underlying data)?

Reworking the data

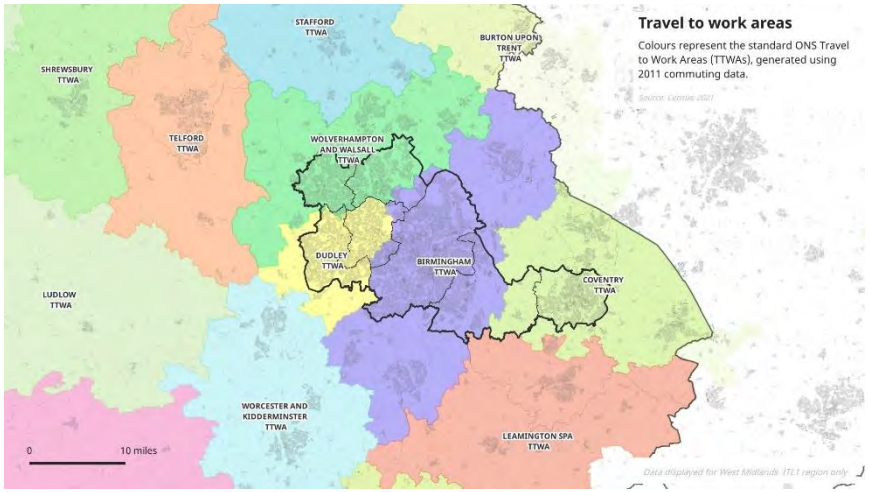
From Table 3-1, it is clear that analyses since 2015 have been substantially underpinned by:

- considerations of commuting flows at local authority district level from the 2011 Census; and
- the map of Travel to Work Areas (TTWAs) which was first published in 2015 and was itself based on data from the 2011 Census (see Figure 3-1).

The same commuting data from the 2011 Census have also now been analysed through COMBO (reported in Chapter 2). It is therefore useful to consider whether the new analysis leads to different (or at least re-calibrated) conclusions.

TTWAs are based on wards and a fairly arbitrary but defensible self-containment threshold. All TTWAs are 'named' (although naming conventions can be misleading: TTWAs are literally areas with an overall level of self-containment, rather than flows centred on specific 'places'). COMBO does not 'know' where any of the areas actually are on a map. Instead it simply considers MSOAs and how strongly or weakly they are linked. It then groups them together.

Figure 3-1: Travel to Work Areas, 2011 (first published in 2015)



In practice, there are both similarities and differences between the areas generated through the COMBO algorithm and the TTWA map. Whilst the overall pattern is broadly consistent and recognisable, some of the COMBO areas generated through commuting data from the 2011 Census are rather different[14]. For example, the COMBO area around Coventry is much larger than the TTWA with the same name. 'Leamington Spa' (with Warwick) is identified as a separate

[14] Note that Annex A considers TTWAs alongside commuting data from the 2021 Census whereas the comments here are made with reference to the earlier 2011 Census

TTWA but its geography is fully within the same COMBO area as Coventry.

Underpinning these observations is the fact that the TTWA methodology is based on the principle of self-containment, but in nearly all cases, the functional economies are overlapping and interconnected. Therefore an approach which seeks to draw hard boundaries around discrete areas risks misunderstanding the nature of true economic geographies. The TTWA approach is very much an out/in approach based on a pre-defined self-containment threshold, whereas the COMBO approach gives indicative groupings based on strength of connections. In other words, it shows connections and not separations.

Re-visiting the conclusions

Based on travel to work data from the 2011 Census, the *West Midlands Functional Economic Market Area study (2015)* placed a strong emphasis on urban centres, within a wider the narrative cast in terms of polycentricity. This theme continued in the *2020 State of the Region*. Similar points were made in the *Midlands Engine report* from 2023, although here, the focus was broader and polycentricity was identified as a root cause of systemic underperformance given the apparent absence of agglomeration effects.

Adding the COMBO analysis to the mix largely endorses the overall narrative. However it also suggests that insufficient attention may have been paid to both the fact, and the consequences, of polycentricity beyond the boundary of (what is now) the WMCA area. To varying degrees, Bromsgrove, Kidderminster, Redditch and Warwick/Leamington Spa (to the south) and Nuneaton, Tamworth, Cannock, Telford and Lichfield (to the north) all appear to be relevant in terms of the narrative around polycentricity. Because of functional connections (through commuting and more generally), all of these places may have had some role in relation to the WMCA area's overall socio-economic character and performance.

Is there evidence to suggest that functional economic relationships have changed over time?

The bigger question is whether the analysis of newer and different data sets, *together with* the use of very different analytical techniques – as set out in Chapter 2 – points to any evidence of substantive changes in the region's economic geographies.

The changing narrative

The early studies summarised in Table 3-1 provide a 15-20 year perspective. For those, the focus was on the 'Birmingham/ Black Country/ Solihull conurbation' within (what is now) the wider ITL1 region. Coventry was identified but quite separately (as was North Staffordshire). It was because of 'a conurbation and two hubs' that the narrative around polycentricity was used – but at the time neither Wolverhampton nor any other part of the Black Country was identified as a hub in its own right (or therefore one of the 'centres'

within a 'polycentric' region). Hence the 'polycentricity' of the more recent studies is actually describing something rather different.

The 2008 Regional Spatial Strategy also introduced (effectively) a counter-urbanisation narrative. This described accelerated growth in the area outside the metropolitan core, particularly towards the east and south. In principle at least, this should have prompted some recalibration (or even redefinition) of the West Midlands' functional economic areas.

For an even longer perspective, we can draw on the findings from the Royal Commission on Local Government in England (1966-69), which are summarised in Box 3-1. The Royal Commission's work was, of course, completed for a particular purpose but, as an analytical exercise, it provides useful insights from over half a century ago. It relied on an analysis of functional economic areas and it used a set of indicators. Some were the same as those used for the COMBO analysis in Chapter 2 (e.g. migration and commuting data); and some were a 20th century equivalent of the indicators we have used (e.g. shopping surveys). Others are largely now obsolete (e.g. areas covered by independent TV companies and the circulation of provincial newspapers) – yet they provide an important insight into what helped to shape functional economic relationships at the time.

From the Royal Commission's findings in respect of what is now the WMCA area, two points are important.

The first is consistent with many of the other analyses completed over the last fifty years. Specifically, Birmingham/ Black Country/ Solihull was essentially identified as the metropolitan core, while Coventry (and Warwickshire) was also recognised as a functional economic area, albeit one that was distinctively different (whilst still having some connections to the metropolitan core focused on Birmingham).

The second layer of argument is more nuanced, and it relates to the functioning of the 'metropolitan core'. The Royal Commission observed that the metropolitan area needed to be understood as the consequence of "*piecemeal*" growth across previously "*independent communities*". But it also concluded that the imperative now (i.e. as of the late 1960s) was for "*remodelled communications*" – so that the metropolitan core could function effectively as a conurbation.

Box 3-1: Taking the long view

Over fifty years ago – and in the context of a potential re-drawing of the map of local government, the Royal Commission on Local Government in England (1966-69), chaired by the Rt. Hon. Lord Redcliffe-Maud[15], considered the evidence in relation to functional economic geographies across England.

The Commission was especially interested in the idea of the 'city-region' which it identified as the "*geographical form taken by modern socio-economic activity*"[16]. Its significance had been recognised by the Ministry of Housing and Local Government which had argued (a) that it ought to be the planning unit of the future and (b) that the structure of local government should be founded on it. They key point was that the same authority should be responsible for where people live, where they work and where they enjoy recreation.

The Commission considered a wide range of evidence in order to populate this argument. The evidence included[17]:

- migration of people from urban to rural areas, together with patterns of commuting from rural to urban areas
- patterns of service provision
- shopping surveys
- circulation of provincial daily and local weekly newspapers
- district or regional organisation of professional bodies
- regional and local organisation of the General Post Office
- groupings of hospitals under hospital management committees
- areas covered by independent television companies.

Following its analysis, proposals were made for a 'West Midlands province' – over a territory which is similar to the current West Midlands ITL1 region. Within it, the Commission identified five 'units': Stoke and North Staffordshire; West Midlands metropolitan area; Shropshire; Herefordshire and South Worcestershire; and Coventry and Warwickshire.

Of particular relevance to this study are the following observations from the Royal Commission (from the late 1960s):

- West Midlands metropolitan area was defined to include Birmingham, the Black Country and Solihull, and small parts of Staffordshire, Warwickshire and Worcestershire. The surrounding narrative referred to "*a tremendous housing need*". It also noted that "*the conurbation originally grew piecemeal as a number of independent communities; but the radical reshaping now needed entails the co-ordinated clearance and redevelopment of outworn areas, and a remodelled system of communications*"[18].
- Coventry and Warwickshire was defined to include Coventry, most of Warwickshire and a small part of Northamptonshire. The observation was made that "*Coventry exerts a strong pull for work, shopping and entertainment over most of the area, though to the west it is overlain by the stronger pull of Birmingham*"[19].

In the light of the evidence, ten of the eleven Commission members concluded that the solution was 61 new local government areas across England: in 58, a single authority would be responsible for all services while in Birmingham, Liverpool and Manchester, there would be two levels of local government[20]. The Commission also argued for eight provincial authorities whose principal responsibility would be to provide – in collaboration with central government – a strategy and planning framework in which the unitary authorities might operate.

The proposals put forward by the 1966-69 Royal Commission were never implemented.

[15] Royal Commission on Local Government in England, 1966-69, Chaired by Lord Redcliffe-Maud Volume 1 Report
[16] *ibid.* page 35
[17] *ibid.* page 53
[18] *ibid.* page 238
[19] *ibid.* page 250
[20] London was outside the Terms of Reference

Over fifty years, the narrative has therefore shifted from the creation of a coherent conurbation, through some level of counter-urbanisation, to the renaissance of the metropolitan urban core and the (re-)emergence of locally significant centres, perhaps with a general shift in economic gravity from west to east (across the WMCA area). It is important to note also that WMCA narratives now identify three cities: Birmingham, Coventry and Wolverhampton.

The changing relationship to the motorcar (and the transport infrastructure more generally) has been at the heart of all this. It created new levels of accessibility so that locations that were previously very difficult to access by public transport, walking or cycling, suddenly became prime for development (sometimes to the detriment of public transport systems). But there have also been massive changes in sectoral and occupational structures across the West Midlands, driven in large part by technological developments and global economic changes. Further, the region has seen substantial population growth. These processes have shaped the evolution of the region's functional economic geographies.

That all said, the narrative accounts are very difficult to disentangle from the political and institutional contexts in which they were developed. It is possible that they were crafted and used (even if implicitly) to justify and embolden the political and institutional structures of the day. They therefore need to be considered judiciously, and in the light of more objective evidence.

Perspectives from COMBO

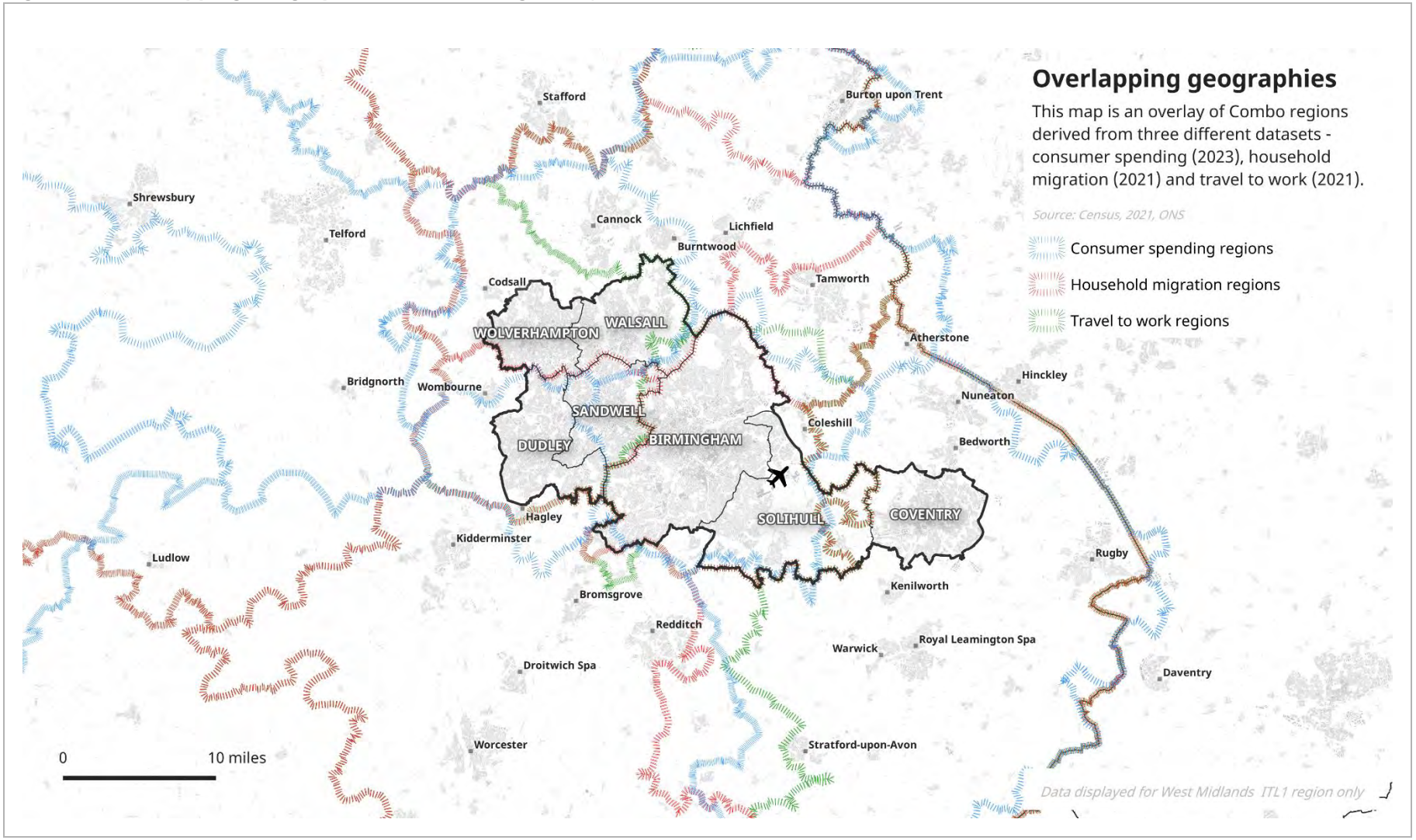
The analysis presented in Chapter 2 was driven by an algorithm. For pragmatic reasons we used data for MSOAs/postcode areas across the West Midlands ITL1 region as the starting point, but beyond that, the findings are value-neutral and driven only by the quest for high modularity scores (i.e. where the relationships are strongest). Most of the analysis relates to the 'latest available' data – so the findings are a snapshot of the present, recognising that the 'journey to the present' has taken place over time.

The findings and conclusions are not a political statement. Nor are they a re-statement of local knowledge or 'folk lore' – although contextual knowledge has inevitably shaped our interpretation. They need to be considered for what they are and used, critically, to reconsider economic geographies across the region, and how these might have changed (and be changing).

From the evidence in Chapter 2 and reflecting on some of the themes in Chapter 3, we can draw the following high level conclusions from the COMBO analysis in relation to the WMCA area:

- **there is some evidence for polycentricity** – albeit the functional economic area with Birmingham at its core appears to be bigger than the other areas (and more consistently defined) in terms of the spatial extent and (particularly) the volume of flows.

Figure 3-2: Overlapping Geographies of COMBO regions by data source



Source: Automatic Knowledge

- **at high levels of modularity, there are typically four or five functional areas** (depending on the choice of indicator); only on the pandemic-affected commuting data from 2021 was there a smaller number of functional areas (which could well reflect increased working from home which, at the time, was a temporary measure, although for many it has persisted post-pandemic, often in the form of hybrid working).

- **when different indicators are combined, three key geographies appear to emerge**: the Black Country (which subdivides on certain indicators), Birmingham (with parts of Solihull and Sandwell), and Coventry (with a small part of Solihull and with Warwickshire).

In addition, two more general points need to be made. These are particularly important from a longitudinal perspective**:**

- **'boundaries' are very porous and areas may well be 'layered' such that particular places are in multiple geographies:** The porosity of boundaries is true in all cases, but it is especially apparent in terms of the relationships between Birmingham and Sandwell, and the rest of the Black Country. The conclusion might be that much of the Black Country is functionally linked with Birmingham but also that there are at least two (and sometimes more) functional economic areas within the Black Country itself. These different 'layers' combine in different ways to signal the complexity of socio-economic life. A particular place – or more properly the people and businesses within it – may well look in multiple directions simultaneously.

- **there are clear links outside of the WMCA area across most COMBO areas.** Few of the COMBO areas – whether generated on one indicator or based on a synthesis of indicators – are wholly contained within the WMCA area boundary. This argument is well established with regard to Coventry and Warwickshire (and Coventry's beyond-city linkages appear especially strong). The sub-region was identified through the Royal Commission in the late 1960s, and the COMBO analysis on the latest data leads to similar conclusions regarding its spatial extent. However, the COMBO analysis suggests that the COMBO areas based around Birmingham/ Sandwell/ Solihull and Walsall/ Wolverhampton may also extend beyond the WMCA boundary. Dudley (with parts of Sandwell) is typically smaller and more spatially focused, but here too there are wider links, particularly to the west.

4. Looking forward – drivers of change and how current functional geographies might evolve

The patterns observed in Chapters 2 and 3 have evolved over time. The key question for WMCA is how they might change in the decades ahead.

What might drive change...

There is now an extensive literature on **'megatrends'** which are shaping the way people live and work. **Four overarching drivers of change are widely recognised**[21], and all four are likely to have implications over the medium- and longer-term:

- adaptation to climate change and the transition, enshrined in legislation, to net zero carbon
- technological change and digitisation
- demographic trends, and particularly the ageing population
- geopolitical changes.

Together these megatrends interact across time and space to influence functional economic geographies – i.e. the real geographies within which sub-national economies operate. As discussed in Chapters 2 and 3, the evidence suggests that rather than being fully self-contained 'islands', these are in practice fuzzy and overlapping.

In practice, the four high-level megatrends work in combination. In the paragraphs that follow – and as summarised in Figure 4-4 – we consider how they translate into the mid-level components of functional economic geographies and how they drive change. We consider these first in general terms before turning to consider the specific character of the West Midlands.

...across local economies and functional economic geographies

The nature of, location for, and timing of work

Changes in employment demand

Changes in the **structure of employment** – both sectorally and occupationally – have **implications for where work is done**. In

[21] Lyons, M., Green, A., Hoole, C. and Pugh, A. (2023) *Megatrends in the Midlands*. Midlands Engine.

sectoral terms there has been a **long-term shift from primary and manufacturing industries to services** which is projected to continue. Sectors have their own distinctive location patterns. In occupational terms the largest projected increases in employment to 2035 are expected for managers, directors & senior officials; professional occupations; associate professional occupations; caring, leisure and other services occupations; and process, plant & machine operatives.[22] There are variations between and within these broad occupational groups in the extent to which they need or tend to be workplace-based, but there are important variations between high-touch service delivery requiring personal contact with customers (wherever those customers are located) and those which are more independent of a specific geographical location. In practice individuals in lower-skilled (and lower-wage) occupations commute shorter distances than their higher-skilled counterparts, with geographically uneven implications for monopsony power in the labour market.[23]

Changes in business models

At the same time, we are seeing substantial changes in what businesses do and how they organise themselves to deliver their activities. One key feature of changing business models is **digitisation**. Of particular relevance to changing economic geographies is a shift towards online retailing and greater opportunities for remote/ hybrid working. Enhanced digitisation also opens up greater possibilities for recruitment beyond the local labour market and for offshoring of certain business functions. **Developments in AI** have implications for whether, in what capacities and where people are employed, so changing the composition of employment which likewise impacts on functional economic geographies.

Changes in workplaces and in workplace norms

Traditionally, definitions of Travel-To-Work Areas (and the data sources on which they have been based) have been predicated on a norm of standard journeys from a specific residence to a fixed workplace at regular times five days per week. While there have always been variations from these conventions, **technological changes, digitisation and changing attitudes** have opened up a greater range of possibilities than was formerly the case. During the 'forced experiment' of the pandemic lockdowns, the advance of digitisation meant many high-skilled formerly office-based workers were able to work remotely[24] more easily than other workers – even controlling for occupation and industry.[25] **Hybrid working** became, and has remained, the norm for some groups of workers – notably older workers, public sector workers and those who previously

[22] Dickerson, A. and Rossi, G. (2024*). An analysis of the demand for skills in the labour market in 2035: Revised tables and figures*. Slough: NFER.
[23] Datta, N. (2024) 'Local monopsony power', *Discussion Paper* 2012, Centre for Economic Performance, London School of Economics.
[24] Reuschke, D., and Felstead, A. (2020) Changing workplace geographies in the COVID-19 crisis. *Dialogues in Human Geography* 10(2), 208-212.
[25] Adams-Prassl, A., Boneva, T., Golin, M. and Rauh, C. (2022) 'Work that can be done from home: evidence on variation within and across occupations and industries', *Labour Economics* 74, 102083.

commuted into metropolitan centres.[26] This has occurred with the agreement of employers, so opening up new spatial possibilities for living and working.

Since the pandemic and the acceleration of home and hybrid working there has been speculation about the **implications for the commercial office sector**, especially in central cities. Analyses of New York show that remote work led to large drops in lease revenues, occupancy and market rents in the commercial office sector, with a 46% decline in long run value.[27] An analysis of nine wealthy large cities in the USA, Europe and Asia (which modelled the total value of office space) found a 26 per cent decline in a moderate scenario and a 42 per cent decline in a severe scenario between 2019 and 2030.[28] Changes in working patterns have implications for the **geography of housing demand** also, and for housing design and planning policy, with a greater premium on adaptable and private space than on central locations.[29]

However evidence from London suggests that there has been a recent upward shift to three days spent at city centre offices (so more genuinely hybrid working), taking advantage of collaboration and skills development opportunities, while also having greater flexibility to work from home, fit in with home life and save money. It is not clear, as yet, whether there is stabilisation around a 'new normal'. It could be the case that there will be little shift from current commuting patterns. Agglomeration theory suggests that there are **productivity benefits** from close/ co-location.

Patterns of consumption and approaches to service delivery

In parallel, major changes are underway in the **pattern of consumption**. **'Experiences'** have become a major feature of contemporary lifestyles – particularly among those that are affluent – and economic geographies are being reshaped as a consequence. In the main this means that city centres are once again a major magnet – whether in relation to sporting events or cultural attractions. Some smaller centres can do well too – although many struggle to compete.

Another element of changing service delivery relates to **public services**, particularly health and social care. Delivery 'in the community' or remotely is gaining traction, coupled with specialist hubs for secondary healthcare which may be regional centres serving huge populations.

[26] Robson R. and Selby O. (2023) *Return to the office: How London compares to other global cities, and why this matters*. Centre for Cities.
[27] Gupta A., Mittal V. and Van Niewerburgh S. (2024) *Work From Home and the Office Real Estate Apocalypse*. 4124698.pdf
[28] McKinsey Global Institute (2023) *How hybrid work has changed the way people live, work and shop*.
[29] Gallent N. and Madeddu M. (2021) (2021) 'Covid-19 and London's Decentralising Housing Market – What are the Planning Implications?', *Planning Practice & Research* 36(5), 567-577; Schulz R, Watson V. and Wersing M. (2023) 'Teleworking and housing demand', *Regional Science and Urban Economics* 101, 103915; Uyttebrouck C., De Decker P. and Newton C. (2023) 'Living and working in the (post-pandemic) city: a research agenda', *Housing Studies*, DOI: 10.1080/02673037.2023.2286359

Changes in households, home ownership and in residential preferences

The rise of dual-earner, and more specifically dual-career, households means that **locational decision-making is more complex** than formerly.[30] At the level of the individual worker, the possibility, and reality, of less frequent commuting between residences and employers' workplaces weakens the link between residential and work locations, thereby **decoupling the geography of home and work**.[31] Some workers may commute longer distances, but less frequently (e.g. one or two days a week), and may make residential location decisions that also fit with the needs of other household members. Some may move residence. The shock of the pandemic provided an additional impetus to consider locational decisions. The UK Household Longitudinal Panel Survey shows evidence of counter-urbanisation – perhaps in search of more green space, albeit mainly within regions, since the start of the pandemic.[32]

With elongated youth transitions,[33] housing market pressures and the cost of living crisis, **increasing numbers of 18-34 year olds live with their parents**.[34] This, in turn, has implications for the **residential behaviour of parents** – perhaps delaying residential moves that otherwise might have been made, while also altering the behaviour of younger people who might have more money to spend on leisure activities than would otherwise have been the case. One consequence is the enhanced importance of the **'consumption'/ 'experience' economy**. There is some evidence to suggest that the shift from spending money on 'possessions' to 'experiences' was seen particularly in the early 2000s, so it is now a 20-year trend[35] which we might expect to see shaping functional economic geographies (as noted above).

Supply chains and procurement

In the context of **geopolitical uncertainty** – one of the four mega-trends identified at the start – changes are being seen in the **configuration of supply chains**. This may be in response to security concerns and financial shocks associated with geopolitics. In recent years, the tendency for both nearshoring and reshoring has been apparent. This is affecting the way in which functional economic geographies are evolving.

[30] Green, A. (2017) 'Understanding the drivers of internal migration', in Champion, T., Cooke, T, and Shuttleworth, I. (eds.) *Internal Migration in the Developed World: Are We Becoming Less Mobile,* Routledge, 31-55.
[31] Nathan, M. and Overman, H. (2020) 'Will coronavirus cause a big city exodus?', *Environment and Planning B: Urban Analytics and City Science*, 47(9), 1537-1542.
[32] Clarke K. (2024) 'How remote working is changing mobility in the UK'. *Regional Studies blog*. https://www.regionalstudies.org/news/sssblog2024how-remote-working-is-changing-mobility-in-the-uk/
[33] Kirchner Sala, L., Nafilyan, V., Speckesser, S., Tassinari, A. (2015) 'Youth transitions to and within the labour market: a literature review', *BIS Research Paper* 299A.
[34] Okundaye, J. (2024) 'Living with my Mum has been a blessing – but young adults should not be forced back into the family home', The Guardian, 28 March 2024. Living with my mum has been a blessing – but young adults should not be forced back into the family home | Jason Okundaye | The Guardian
[35] See 'Nownership' and the Experience Economy, Frontier Economics https://www.frontier-economics.com/media/ef3ow4za/nownership-and-the-experience-economy.pdf

Use of resources

In parallel, different imperatives are emerging with regard to the use of materials and other resources. The need to **decarbonise** is affecting many sectors – and it is doing so within regulatory frameworks. More generally, there are widespread concerns relating to **energy and water supply**, and over time, these too will shape functional economic geographies.

Climate change

Climate change is likely to bring warmer, wetter winters and hotter, drier summers, alongside more extreme weather events. The implications for changing economic geographies are uncertain. However the importance of supporting the resilience of the existing transport infrastructure, improving biodiversity, and delivering decarbonisation and flood alleviation programmes, is clear. This is especially true in relation to 'vulnerability hotspots' for people, infrastructure and the natural environment.[36]

...in the specific context of the West Midlands

The drivers and trends outlined above are all relevant to the West Midlands. However they take particular forms, and they combine in specific ways, across different parts of the area.

It is likely that compositional effects will play a role in how they play out in the West Midlands vis-à-vis other parts of the UK. Considerations here include an industrial structure in which manufacturing – traditionally associated with fixed workplaces – is more important. Overall, the West Midlands has a lower percentage of remote workers than the UK average.

The **transition of manufacturing capacity and associated supply chain from the internal combustion engine to electric vehicle volume production** has particular significance in the West Midlands. It has implications for the size, profile and spatial footprint of the automotive industry, the supply chain and associated sectors. The West Midlands is at the forefront of electric light vehicle development, battery technologies, battery recycling and propulsion systems for electric vehicles. There are also important developments in digitalisation and decarbonisation in rail and very light rail. This means that the West Midlands has potential to become a leading international hub for industrial decarbonisation in mobility. This could have implications for spatial patterns of economic growth in terms of future jobs created. It is exemplified by the launch of Greenpower Park in Coventry with investment zone status. This has planning permission and official approval for a Gigafactory with enough capacity to power 600,000 electric vehicles. The aim is to attract inward investment of £2.5 million and to create 6,000 highly

[36] https://www.wmca.org.uk/media/d2pons0q/summary-of-climate-change-impacts-in-wmca-area.pdf

skilled jobs[37]. It also has implications for future patterns of mobility, with potential to make current patterns of mobility more sustainable. Likewise, the relative importance of logistics in the region (given its central location in the country) means that there is potential for the region to be at the forefront of developments in living and working more sustainably.

The **age profile** of the West Midlands – which is younger than the national average – is also an important factor. While young people are often considered be amongst the most digitally savvy and therefore the most likely to embrace remote/ hybrid working, they are also a group that sees particular benefits of in-person workplace collaboration for skills development purposes.

The **ethnically diverse population** of the West Midlands is a further consideration given cultural variations in attitudes and behaviours. Some ethnic groups are more likely than others to live in multi-generational households and to seek local further/ higher education and work opportunities.

The region's **existing transport infrastructure** plays an important role in shaping current functional economic geographies as it enables movement, while lack of (or gaps in) infrastructure will constrain movement. Figures 4-1 and 4-2 (overleaf) provide one perspective, based on rail flows from two of the region's busiest stations (Birmingham New Street and Coventry): some places and communities have poor connections to the rail network and are therefore rather disconnected. More generally, with increasing use of private cars for travel-to-work from the 1960s onwards, commuting flows have become more diffuse. The analysis in Chapter 2 illustrates that roads and railways impact on the directionality of flows. Newer investments may add nuance (in terms of the movement of passengers) to existing ones.

The **arrival of HS2** has implications for changing functional economic geographies. High-speed rail should change connectivity between cities. This could influence the micro-foundations of agglomeration economies and precipitate innovation. When announced initially, HS2 stimulated investment in Birmingham city centre's office market. The scale of potential benefits from HS2 for the WMCA area depend, in part, on the use of 'freed up' capacity on the existing rail network and investment in infrastructure to maximise connectivity within the region and beyond. In time, this could change commuting possibilities – especially along rail and tram lines.

A **new HS2 Interchange Station at UK Central** and **development at Arden Cross** (including business and living opportunities[38]) should strengthen a key economic node. This includes significant economic assets (e.g. Birmingham Airport, Birmingham International rail station the National Exhibition Centre and Birmingham Business

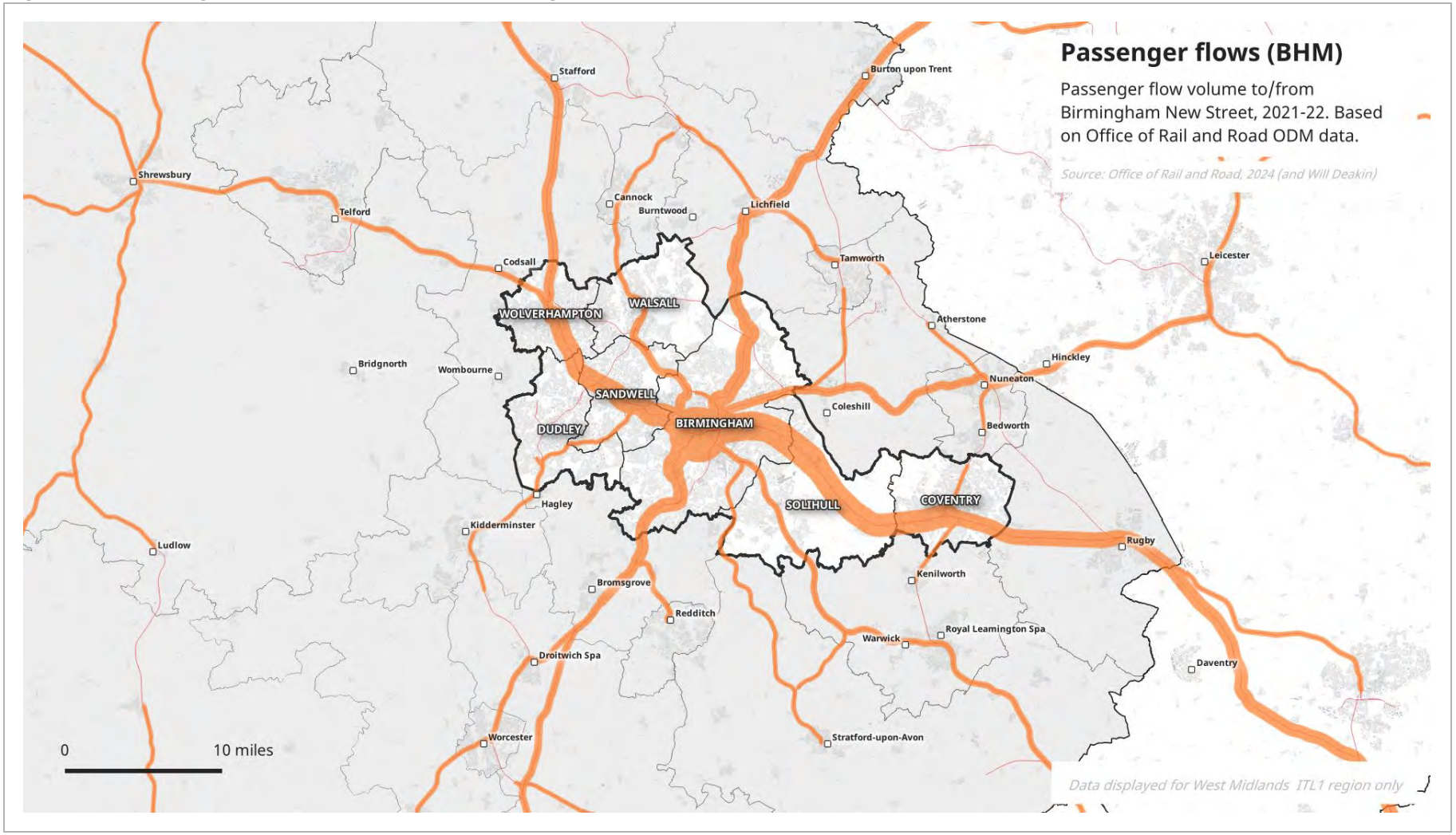
[37] See Coventry City Council (2024) 'Introducing Greenpower Park', https://www.coventry.gov.uk/news/article/4929/introducing-greenpower-park; Hill E. (2024) 'Green technology park initiative launched in Coventry', Production Engineering Solutions, 27 March 2024; https://www.wmca.org.uk/what-we-do/economy-and-innovation/plan-for-growth-a-vision-for-growth-in-the-west-midlands/electric-light-vehicles-and-batteries/.

[38] https://www.solihull.gov.uk/sites/default/files/2021-01/Arden-Cross-Masterplan.pdf

Park). HS2 will provide rapid access to and from Birmingham Airport, with journey times from the airport to central London reducing from 70 minutes to 38 minutes[39]. Effectively, this should make it as accessible from London as other airports in London and the South East. However, the cost of travel to and from the Airport to London – together with the range of flight destinations – will influence the volume of travel flows.

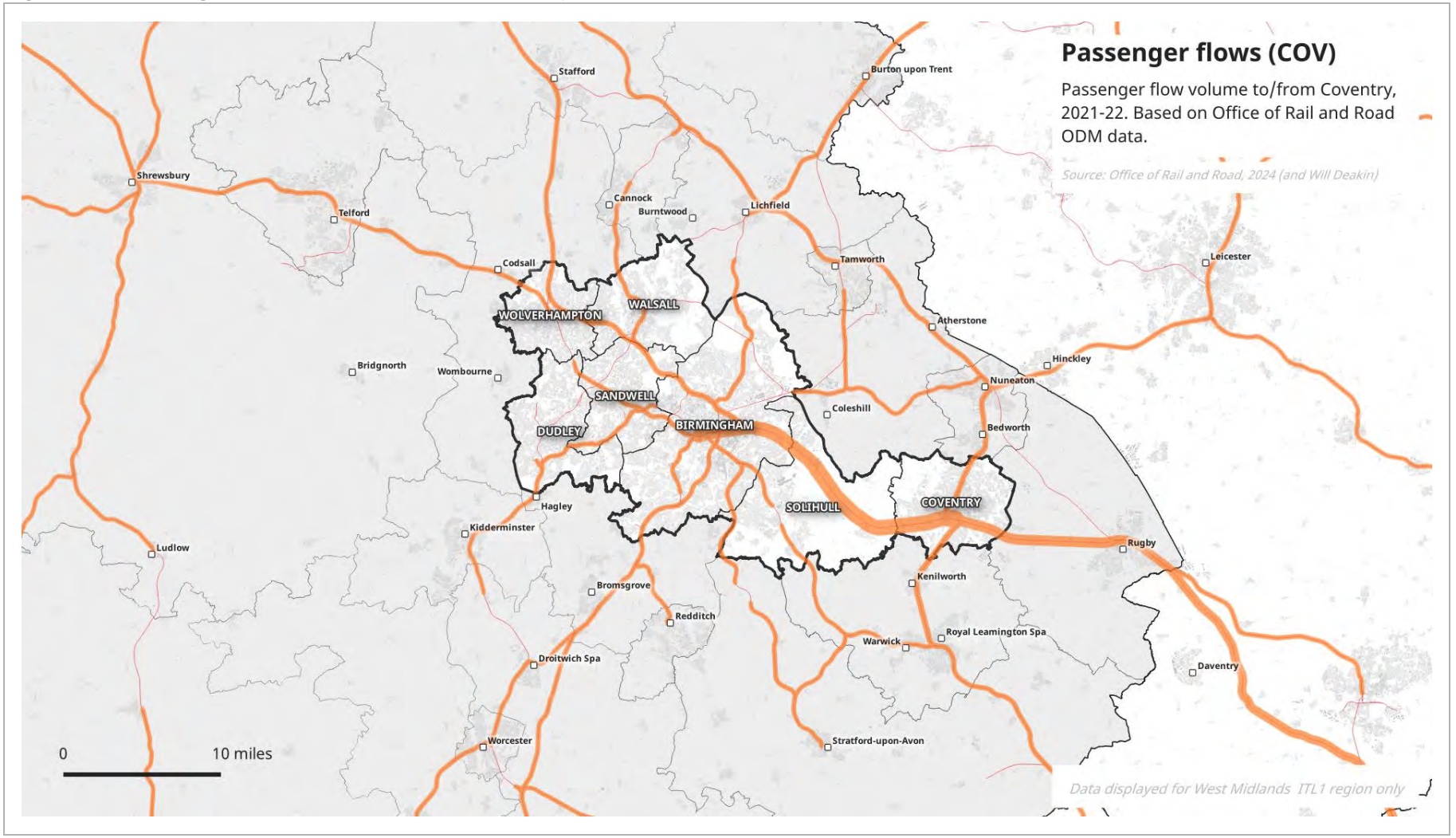
[39] https://www.birminghamairport.co.uk/latest-news/birmingham-airport-and-hs2-ltd-share-plans-to-improve-air-and-rail/#:~:text=When%20HS2%20opens%2C%20the%20rail,of%2035m%20to%2045m%20people.wells

Figure 4-1: Passenger Flow Volumes to/from Birmingham New Street Station, 2021-22



Source: Automatic Knowledge analysis of Office of Rail and Road ODM Data, 2023

Figure 4-2: Passenger Flow Volumes to/from Coventry Station, 2021-22



Source: Automatic Knowledge analysis of Office of Rail and Road ODM Data, 2023

Implications for future functional geographies

The drivers outlined above interact in particular ways for different people, households, communities, businesses and places.

One way of capturing future functional economic geographies is through the lens of a series of West Midlands 'personas' as set out in Figure 4-3 below. Here, we consider the circumstances of six individuals who vary by age, income, ethnicity, occupation, family/household structure and location. While fictitious, the combinations of circumstances are easily recognisable. The important point is that they lead to very different experiences of functional economic spaces across different parts of the West Midlands. It is apparent that this in turn will have implications for individual prospects and wider life chances.

Synthesising what this looks like at an aggregate level and 'in the round' is difficult, but we make the following comments, based on the arguments set out above:

- At an individual level, **functional economic geographies will be far more differentiated than previously**; they are likely to be shaped by many factors but most especially age, occupation and income/wealth. In short, functional economic space is likely to be more expansive for those younger adults with reasonably high incomes. Conversely some older people and those will fewer resources will live, work and enjoy leisure over much smaller territories.
- The **relationship between home and work will be more complicated and less predictable**, although again, this may well vary by occupation and income. In many instances, homes will be workplaces, the daily commute will simply not exist and hybrid patterns will be commonplace; commuting will therefore cease to define functional economic space in an unambiguous way. Increasingly, employers will not need to be local and for some individuals and households, decisions surrounding where to live will be less influenced by work.
- **Insofar as future social and economic life does depend on in-person interactions, the transport infrastructure will continue to crucially important**. The West Midlands has a transport infrastructure endowment which will not change quickly, but new investments – including rail and tram systems – and decisions linked to ticketing will influence how future flows evolve. The same will be true of investments in active travel, with the latter tending to lead to more localised travel patterns. The frequency, reliability and cost of public transport, will all influence individual travel choices (and aggregate travel patterns) for work, leisure and the consumption of key services. Policy decisions influencing car use (e.g. fuel duties, road pricing, etc.) will also play a crucial role.

Figure 4-3: West Midlands 'personas' with implications for future economic geographies

Young professional in central Birmingham

Natalie is 26 years old. She stayed in Birmingham after completing university and lives close to the city centre in a shared flat. She works in the legal sector and walks to her city centre office where she works four days a week. This is more often than some of her older co-workers but she wants to take advantage of opportunities for learning from being in the workplace. She does not drive or have a car and is an advocate for active travel. She does not see herself being able to afford to buy property any time soon, although this is a longer-term ambition. She sees herself staying in Birmingham or in the southern suburbs in the short- and medium term.

This persona highlights the sustainable living values and choices made by a young professional with a preference for urban living and maintaining social interaction in the workplace.

Retail worker with young family in Coventry

Sharonjit is 36 years old and lives with her young family in Coventry, where she grew up. She relies on support from her extended family for childcare for some of the time while she works part-time and also continues her studies. Her husband is self-employed and works are various sites around the West Midlands – travelling by train or car. They see Coventry as a good location for accessing future opportunities (for school/ further/ higher education and for work) for themselves and their children and due to family ties do not see themselves leaving.

This persona highlights the importance of familial and cultural preferences in shaping residential location choices and how an urban location with good transport connections maximises access to economic opportunities.

Unemployed man in Chelmsley Wood

Marc is 29 years old and has had a chequered work history. In 2019 he started a new job at Birmingham Airport but when the pandemic hit the airport closed down. He became depressed and has not worked since except for cash-in-hand jobs. His young partner is pregnant and has never worked. With little money, exacerbated by the cost of living crisis, and no private transport, he feels trapped locally and his life-world is small.

This persona highlights the impact of poverty, lack of employment, poor mental health and lack of private transport in restricting opportunities – socially, economically and geographically.

Engineer in Dudley

Steve is 47 years old. He undertook an apprenticeship after leaving school and has worked in various locations across the Black Country, mainly in businesses in the automotive supply chain. He has moved between businesses as they down-sized/ scaled-up in accordance with contracts/ projects. He drives to work, as he always has done due to the relatively poor connectivity in Dudley and the demands of shift patterns. He is increasingly concerned about the need to retrain but has taken no action as yet, although he knows there are local opportunities to do so.

This persona highlights concerns about the implications of decarbonisation of manufacturing for maintaining employment. It also illustrates the importance of the car for access to the workplace in the context of sub-optimal inter-urban connectivity and working unsocial hours.

Recent graduate living with partner in the parental home outside the West Midlands

Natalie's friend, Emma, is 26 years old. Emma and her partner live with Emma's parents to save money while trying to save to buy a house. She works remotely from the north of England and travels to Birmingham by train once every two/three weeks for work-related meetings. This is feasible for her due to the flexibility of her employer and the nature of her role. Emma and her partner travel more for leisure than for work-related reasons.

This persona illustrates possibilities for remote working from a West Midlands base. These are facilitated by digitisation and inter-city rail connectivity; the demographic trend of young people living in the parental home for longer; and an emphasis on leisure-related travel.

Senior local authority officer living in Tettenhall, Wolverhampton

Paul is 58 years old. He has a senior role in the public sector and has worked in various locations across the West Midlands. He lives in Tettenhall and his partner works in Wolverhampton. Since the Covid-19 crisis and downsizing of the office estate Paul works mainly from home. They have stayed in the local area up to now for ease of access to his partner's role. However, they feel the time is right now to move to a more rural environment in Shropshire as they transition towards retirement and can afford to make longer commutes less frequently.

This persona illustrates work-life choices open to affluent individuals in the older working age cohort in a dual career household. It also highlights how hybrid working facilitated by digitisation can enable counter-urbanisation.

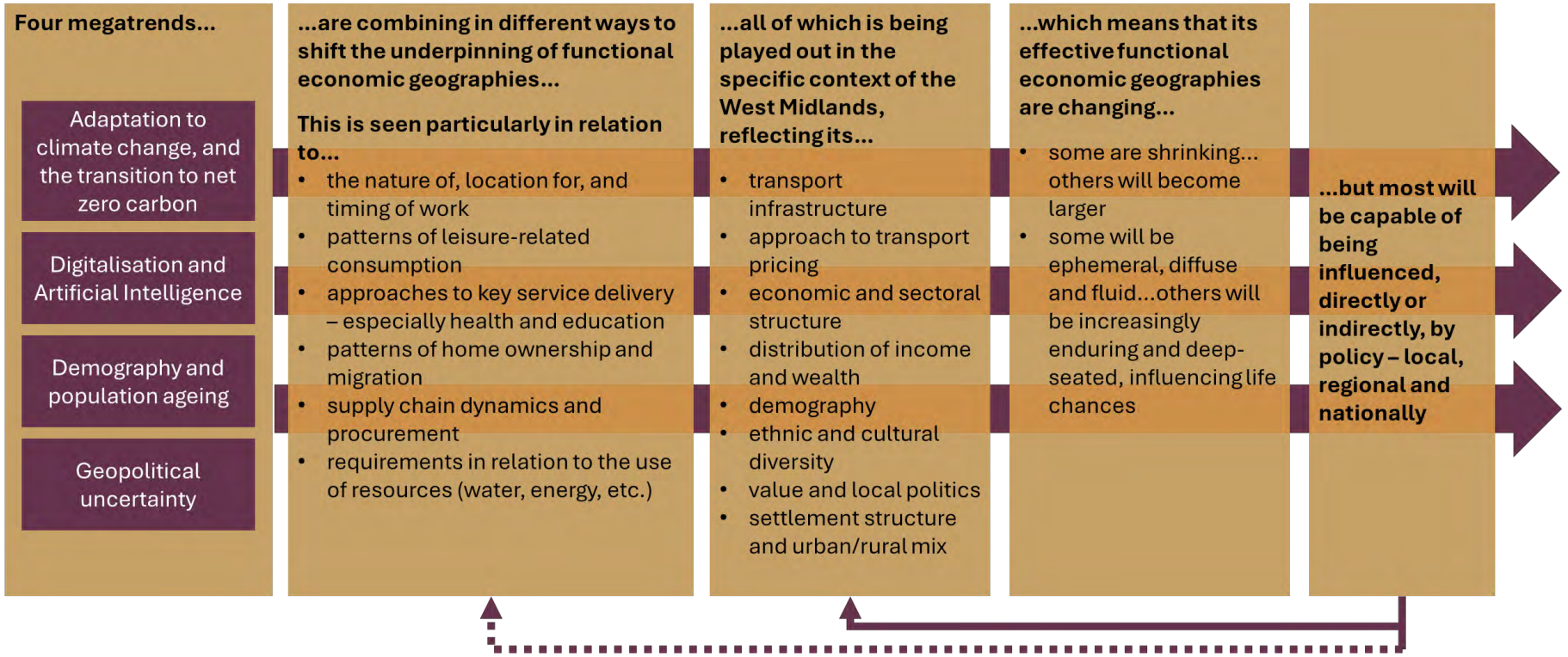
- **The impact of digitisation is likely to be seen in an accelerated and more pervasive fashion, leading to a range of effects**. Through on-line delivery, many services may be sourced from anywhere – leading to ever more extreme spatial divisions of labour and functional economic areas that are 'thin' and incoherent, if they really exist at all. So instead of visiting a local bank, advice is sought through an on-line service, which could be staffed from anywhere (including internationally) or indeed 'the person' could largely be replaced by a bot. Physical products, on the other hand, may generate new functional economic spaces – defined less around town and retail centres than major logistics hubs which will be driven by the relationship between population density, transport infrastructure and the costs of employment sites relative to transport (i.e. the trade-off between cheaper sites and longer distribution distances).

- Finally, **the environmental dimensions of engaging with work, leisure and key services will have a bearing on functional economic space**. This may be driven by changing values and a widespread acceptance of the need to reduce individual carbon footprints. Alternatively, it could result from legislation and 'top down' imperatives; reduced travel in general and within this, greater use of public transport, could change functional economic geographies across the West Midlands. The '15-minute neighbourhood' could be the consequence – recognising that this has different connotations depending (particularly) on an individual's age, income/wealth and occupation, and wider family circumstances.

Conclusions

Overall – and for the reasons summarised in Figure 4-4 (overleaf) – it is apparent that functional economic geographies are likely to become more complicated, more nuanced and more variable – particularly as relationships between home and work are redefined, and leisure becomes a more important part of the mix. But it is clear that this overall conclusion has different implications for different individuals, households, families and communities. For some it is liberating and empowering, opening up new opportunities and possibilities. For others it is close to the opposite. As set out in Figure 4-4, policy and investment will have an important role to play in shaping the evolution of functional economic spaces, and re-shaping the narrative over the decades ahead.

Figure 4-4: Shaping future economic geographies



5. Implications for WMCA and its stakeholders

From WMCA and its stakeholders, the implications of the evidence and arguments set out in Chapters 2, 3 and 4 are wide-ranging, if complicated. In short:

- functional economic areas can be identified across the WMCA area, but they are frequently overlapping and boundaries are porous
- functional economic areas relate to individual people (and households), communities and businesses in different ways
- looking ahead, they are likely to become more complex – and in some cases more important in shaping both overall economic performance and individual life chances.

The implications for WMCA and its stakeholders can be drawn out from two main perspectives:

- policy domains and associated investment decisions
- the spatial basis for economic planning and decision-making.

Policy domains and investment decisions

Notwithstanding the enormous importance of digitisation, the **transport domain** continues to be formatively important in relation to the character and evolution of functional economic geographies.

Transport infrastructure is key, and decisions linked to future capital investment (whether in **rail, tramways, roads or cycle paths**) will be critical. This will influence who benefits from access to emerging opportunities – and who misses out. It will also shape the nature of those opportunities – in terms, for example, of which sectors/clusters can thrive.

Alongside investment in infrastructure, access to transport services will matter too. There is scope for **ticketing policies** (e.g. reducing costs of travel at certain times/ on certain days) to help shape commuting practices and to encourage people to travel into urban centres for work and leisure. The geometry of functional economic areas will also be influenced by the extent to which **different services are 'joined up'** – for example in moving from a train to a bus. Equally, any intervention to restrict the use of the car, including changes to the **cost and accessibility of motoring** (e.g. road pricing, car parking charges and changes to car ownership) will have some bearing on how the economy evolves and the spatial form it assumes.

At a local level, the same will be true of measures to encourage **sustainable transport** (walking, cycling, etc.).

Alongside transport-related considerations, policies linked to the allocation and delivery of both **housing sites and employment land**[40] will have an impact over the medium-long term. In time, these will define new economic and residential hubs and they will start to re-define functional economic space. Planning for them in these terms will therefore be important.

In parallel, consideration ought to be given to issues linked to **employability and skills.** These relate fundamentally to individual agency and the extent to which particular people can participate in – and benefit from – the opportunities that do, in principle, exist. The 'personas' set out in Figure 4-3 provide some sense of the links to functional economic space and how this is, in practice, defined and understood.

The **digital sphere** is also critical. Recognising who does – and does not – have access to it, and who does – and does not – thrive within it, will shape perspectives on inclusion and well-being. The 'digital natives' of Gen Z are likely to have a very different perspective from their grandparents, and understanding the navigability of functional economic space is therefore important. All parts of the region should have safe access to good quality digital infrastructure – recognising the need for cybersecurity throughout.

Linked to this, the surge in remote/hybrid working since the pandemic is something that needs to be watched from a policy perspective. The medium-long term implications in terms of **innovation and productivity** are as yet unknown. Both are bound up with functional economic geographies, and for WMCA, both should be seen as critical.

Finally, it will be important to consider **what makes places attractive – in terms of living, working and enjoying leisure.** Given imperatives surrounding resource use and the transition to net zero carbon, more localised patterns of consumption should be encouraged. Whether this is achievable depends in part on 'what places are like' and also prevailing attitudes and behaviours. Investing in the **public realm** – and in the **cultural sphere** – should be recognised as priorities in this context.

Spatial basis for economic planning and decision-making

Economic planning and decision-making should recognise functional economic geographies. However, these frequently sit uncomfortably with administrative boundaries – for WMCA, its

[40] The importance of employment land was noted in '*A roadmap for business growth'* Final Report of the Business Commission West Midlands (2024)

constituent metropolitan authorities and non-constituent authorities. There are three particular implications that need consideration.

First, there is a need to reflect on relationships across the four Black Country local authority areas41, and also between those areas and Birmingham.

The four local areas are, broadly speaking, part of one Black Country functional economic area and one that may have become more integrated over the past decade. While Birmingham shows up as a standalone economic area on most COMBO analyses, the data on in-bound commuting show that ~70,000 people travel into the city from other individual parts of the WMCA area, including ~50,000 from the Black Country. This points to significant economic dependencies that cut across administrative boundaries.

This means that these five local authorities – together with Solihull – need a meaningful dialogue with their economic neighbours and should have regard to the overlapping functional economic areas in which they are ensconced. For example, many of their businesses are employing workers who live elsewhere. In developing workforce skills plans, the administrative boundary is of no real consequence to the businesses, investors or residents involved, even though it might be very significant indeed in terms of how relevant training is funded. Similar arguments can also be made in relation to housing and employment sites. As well as the economic implications for businesses, the labour market and investment, this may also mean that consideration should be given to the fiscal rewards of successes and risks.

Second, the data show that Coventry is a distinctive area. It has economic ties to the wider WMCA area – particularly to Solihull and via a high patronage train route into Birmingham – but its strongest connections lie beyond the WMCA area and particularly into Warwickshire.

Thirdly, the COMBO analyses show there are significant relationships between constituent local authority areas and their non-constituent neighbours that run in more radial functional economic areas away from the urban cores. Relationships between constituent and non-constituent neighbours could be considered in relation to economic spillover and competitive advantage[42].

Implications for future policy

Strengthening the economic ties between places could potentially yield economic benefits. Against this backdrop, WMCA should

[41] Walsall, Wolverhampton, Sandwell and Dudley

[42] The report has not considered the WMCA's economic ties with other areas beyond its immediate border, such as Greater Manchester and London, which are outside of the scope of this research but are economically consequential.

consider economic relationships *within* and *between* the three functional areas that are identified, but also *beyond* its boundaries.

In practice, relationships take many forms (e.g. through supply chains, and knowledge exchange, as well as more measurable aspects of economic life that can be captured in a COMBO analysis).

It would also be wrong to consider them as 'all or nothing', particularly as the megatrends unfold and evolve. Mature polycentric spatial policy needs to reflect all this; done well, it should bring prosperity to the West Midlands and beyond.

6. Reflections on method and future research priorities

Reflections on method

The use of the COMBO method allowed for a new set of perspectives on functional economic geographies across the West Midlands. As a methodology, it was entirely data driven. It was limited by the availability of datasets of an origin-destination form at a granular spatial scale. However we were able to analyse some new datasets (e.g. consumer spend data) and to consider familiar datasets in a new way (e.g. commuting and migration data). We generated new insights from both.

The use of the COMBO method led to the identification of high modularity COMBO areas evidenced through data. In some instances, these were 'layered' and overlapping. This communicated something of the complexity – and the 'messiness' – of functional economic spaces. As key elements of socio-economic life go online, as patterns of work change substantially for many (but my no means all) people, and as the balance between work and non-work (particularly leisure) shifts, this complexity is likely to grow.

What the future might look like in terms of functional economic space was the focus for the second part of the study, and the methodology was largely qualitative. More work could be done on both alternative possible futures (through scenarios) and preferred futures – and the policy implications that follow. Through its policy and investment decisions, some of this is within the gift of WMCA to influence – and it needs to be sighted on the links across (and beyond) the region's economic geographies.

Future research agendas

In shaping future research agendas, five main priorities have emerged through this study.

- First, it would be useful simply to **identify additional datasets** which are capable of providing (or could be developed to provide) insights into, and perspectives on, evolving economic geographies. In Chapter 3, reference was made to the work of the Royal Commission and the datasets it used in the 1960s. Some of these now look very dated and very much 'of their time'. There is a need for a set of indicators that is capable of capturing functional economic relationships as we approach the mid 21st Century. This could include data on business activities, particularly through supply chains (although those would have been equally instructive in the 1960s). Evidence on innovation diffusion and knowledge exchange would be highly informative today, if appropriate data sources could be identified/ developed and access to them secured. More speculatively, data on the influence of social media might be instructive, particularly through local networks, where these exist.

- Second – and recognising that functional economic relationships generally change relatively slowly – it would be very useful to **build up a longitudinal evidence base to understand change over time**. This could provide insights into links between (for example) transport investment and both economic competitiveness and socio-economic inclusion through the lens of functional economic geographies. This could potentially inform the work of both WMCA and its partners.

- Third, it would be helpful to reverse the assumed direction of causality and **investigate the consequences of changing functional economic geographies for processes of both economic competitiveness and socio-economic inclusion**. The shift to hybrid/remote working is especially topical and important in this context.

- Fourth, it would be instructive to conduct **longitudinal studies of people, households and businesses** to understand how they both shape – and are shaped by – the specificities of place and the functional economic geographies of which their place(s) are a part. Some such studies could also provide insights into whether aspirations to move are realised.

- Finally, there would be value in **bringing people together from different demographic groups/ backgrounds/ policy domains** to discuss key and emerging trends and their implications for policy across functional economic geographies within and beyond the West Midlands.

SQW

Contact

For more information:

Christine Doel
Director, SQW
T: 020 7391 4100
E: cdoel@sqw.co.uk

2nd Floor East
Greenhill House
90 - 93 Cowcross Street
London
EC1M 6BF

www.sqw.co.uk