

Northumbria Research Link

Citation: Cabras, Ignazio and Lau, Chi Keung (2019) The availability of local services and its impact on community cohesion in rural areas: Evidence from the English countryside. *Local Economy: The Journal of the Local Economy Policy Unit*, 34 (3). pp. 248-270. ISSN 0269-0942

Published by: SAGE

URL: <https://doi.org/10.1177/0269094219831951> <<https://doi.org/10.1177/0269094219831951>>

This version was downloaded from Northumbria Research Link: <http://nrl.northumbria.ac.uk/38615/>

Northumbria University has developed Northumbria Research Link (NRL) to enable users to access the University's research output. Copyright © and moral rights for items on NRL are retained by the individual author(s) and/or other copyright owners. Single copies of full items can be reproduced, displayed or performed, and given to third parties in any format or medium for personal research or study, educational, or not-for-profit purposes without prior permission or charge, provided the authors, title and full bibliographic details are given, as well as a hyperlink and/or URL to the original metadata page. The content must not be changed in any way. Full items must not be sold commercially in any format or medium without formal permission of the copyright holder. The full policy is available online: <http://nrl.northumbria.ac.uk/policies.html>

This document may differ from the final, published version of the research and has been made available online in accordance with publisher policies. To read and/or cite from the published version of the research, please visit the publisher's website (a subscription may be required.)



**Northumbria
University**
NEWCASTLE



UniversityLibrary



**The availability of local services and its impact on
community cohesion in rural areas: evidence from the
English countryside**

Journal:	<i>Local Economy</i>
Manuscript ID	LEC-18-0084.R1
Manuscript Type:	Feature article
Keywords:	Community Cohesion, Rural Services and Facilities, Local Development, Third Places, England
Abstract:	This paper investigates how the availability of services and amenities influences levels of community cohesion in rural England. Specifically, we measure levels of community cohesion in selected rural parishes between two points of time (2000 and 2010) using an index of indicators based on the presence or absence of retailers and amenities. Results of this analysis provide empirical evidence that the presence of facilities and services have a considerable impact on residents in rural areas, suggesting a significant relationship between the presence of small retailers and social engagement in the English countryside. We discuss these findings with regard to policies and initiatives that could enhance the positive impact that services and amenities operating within villages and rural hamlets have on local communities.

SCHOLARONE™
Manuscripts

1
2
3
4
5
6
7
8
9
10
11 **The availability of local services and its impact on community**
12 **cohesion in rural areas: evidence from the English countryside**
13
14
15
16
17
18
19
20

21 **ABSTRACT**

22
23 This paper investigates how the availability of services and amenities influences levels
24 of community cohesion in rural England. Specifically, we measure levels of community
25 cohesion in selected rural parishes between two points of time (2000 and 2010) using
26 an index of indicators based on the presence or absence of retailers and amenities.
27 Results of this analysis provide empirical evidence that the presence of facilities and
28 services have a considerable impact on residents in rural areas, suggesting a significant
29 relationship between the presence of small retailers and social engagement in the
30 English countryside. We discuss these findings with regard to policies and initiatives
31 that could enhance the positive impact that services and amenities operating within
32 villages and rural hamlets have on local communities.
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

The availability of local services and its impact on community cohesion in rural areas: evidence from the English countryside

1. Introduction

In 2016, the population of England was 55.3 million (ONS, 2016). Of these, 9.4 million, about one in six people, lived in rural areas, with about half a million people living in sparse settings. A higher proportion of the elderly population lived in rural areas, with more than half of residents aged 45 and above, compared with around 40 percent in urban areas. In most isolated villages and hamlets in a sparse setting¹, the proportion of residents aged 45 and above was approximately 60 percent (DEFRA, 2018). While levels of employment in England were generally higher in rural compared than urban areas, one in five living in rural sparse settings was economic inactive (DEFRA, 2018).

According to Local Government Association, 'changing population patterns, including outward migration of young people and inward migration of older people, are leading to a rural population that is increasingly older than the urban population' (2017:7). These changes seem to have had an effect on employment structure: since the financial crisis in 2008, the percentage of home workers in rural hamlets and dispersed areas increased significantly compared to those located in urban areas, at 34 per cent compared with 13 per cent respectively (DEFRA, 2018). Home workers are more likely to be working in higher skilled roles and earn on average a higher hourly wage, however this will vary across rural area (DEFRA, 2018).

These figures provide an overview of many peripheral and remote communities located in the English countryside. On the one hand, these communities are characterised by an ageing resident population (ONS, 2016; Local Government Association, 2017). On the other hand, the same communities have seen a growing influx of new residents mostly skilled and higher educated in the past recent years, as reported by the Commission for Rural Communities (CRC, 2010; see also DEFRA, 2018). In such context, the availability of small retailers and amenities becomes an important

¹ The Rural-Urban Local Authority Classification, proposed by Bibby and Shepard (2004) categorises Districts and Local/Unitary Authorities from rural to urban on a six point scale: mainly rural; largely rural (these two also referred to 'predominantly rural' when combined); urban with significant rural; urban with city and towns; urban with minor conurbation; and urban with major conurbations (the latter three also referred to 'predominantly urban' when combined). These categories are based on populations and settlement patterns, according to the proportions of the population residing in settlements.

1
2
3 **factor to consider in light of residential living, not only with regard to the provision of**
4 **services and facilities at a local level, but also in relation to community cohesion and**
5 **wellbeing.**
6
7

8
9 **The majority of English rural parishes and villages in the early to mid-twentieth**
10 **century housed a number of different services such as primary schools, blacksmiths,**
11 **butchers, bakeries, post offices, shops, pubs and garages; with some also**
12 **accommodating GP practices, undertakers and banks (Buckton, 2005). Although many**
13 **rural parishes and villages today still retain one or two of these services, there has been**
14 **a sharp decline in the numbers of small retailers starting from the 1980s, as**
15 **documented by many academic papers (Clark and Wollett, 1990; Moseley, 2000; Higgs**
16 **and Langford, 2013; Booth and Hough 2014; Wilson, 2017) and policy reports (Rural**
17 **Development Commission, 1994; CRC, 2007a; CRC 2007b; Department of Communities**
18 **and Local Government, 2008; Rural Service Network, 2010).**
19
20
21
22
23
24
25
26

27 **Generally, services and small retailers serving rural villages and other dispersed**
28 **hamlets, or ‘village services’ (Clarke and Wollett, 1990; Moseley, 2000), are valued by**
29 individuals and local residents as incubators for wider relationships and activities, either
30 formal or informal, outside of their private domains and workplaces (Cabras and
31 Bosworth, 2014). In this context, village services are perceived as institutions which offer
32 a physical space for entire communities to come together (Urry, 2001; Crisp, 2013); and
33 serve as ‘third places’, thus social surroundings alternative to other social environments
34 such as homes and workplaces, identified as ‘first places’ and ‘second places’ respectively
35 (Oldenburg 1989, 2001). Third places provide ideal settings for the origination and
36 definition of societal orders, and delineate frameworks and boundaries for individuals
37 and groups (Watson and Watson, 2012; Mount and Cabras, 2015).
38
39
40
41
42
43
44
45
46

47 Frequently, village services help to accumulate and shape social capital within the
48 communities they serve, with social capital being the degree of social interaction,
49 cohesiveness and networking (Putnam, 2000). In this respect, higher levels of social
50 capital can help to facilitate the flow of knowledge and information, which lead to
51 positive impacts on community togetherness and engagement (Granovetter, 1985).
52 Relationships between community members define the network dimension of social
53 capital and can bring a range of positive externalities in terms of facilitating dialogues
54
55
56
57
58
59
60

1
2
3 between and within groups, fostering cohesion and exchange of ideas (Malecki, 2012),
4 increasing local knowledge (Storper 1995) and mutual support (Cabras, 2011).

5
6
7 **Likewise, the presence of services and amenities is positively associated with**
8 **higher levels of community cohesion registered in rural parishes and villages (Cabras**
9 **and Reggiani, 2010; Mount and Cabras, 2015), with community cohesion defined as the**
10 **level of understanding and closeness that enables different groups of people living in a**
11 **given residential area to get on well together (Department of Communities and Local**
12 **Government, 2008). The higher the level of community cohesion, the higher the**
13 **probability for residents to congregate and join together with regard to different types**
14 **of initiatives, such as starting charitable campaigns or volunteering activities,**
15 **promoting sport teams and ventures, and developing business opportunities (Cabras**
16 **and Bosworth, 2014; Mount and Cabras, 2015).**

17
18
19
20
21
22
23
24
25 **While a number of media reports and press releases across England and the UK**
26 **appear to support the idea that most served villages have more cohesive communities**
27 **(e.g. BBC News, 2010; Ross, 2013; Collison, 2016; Todman, 2018); there is a paucity of**
28 **empirical research about the impact of the decline of services on community cohesion**
29 **and social wellbeing in peripheral and remote areas. How can this impact be measured?**
30 **And, more generally, how the presence of facilities and the availability of services affect**
31 **rural communities in England?**

32
33
34
35
36
37
38 **These questions inform the study presented in our paper, which aims to explore and**
39 **examine the effects of the decline of services and facilities in the English countryside.**
40 **We develop our investigation by using a dataset comprising information about facilities**
41 **and services available in a sample of 284 rural parishes, and testing an index to examine**
42 **levels of community cohesion at a local level. Data were gathered in two defined time-**
43 **points between 2000 and 2010, allowing for an analysis of the changes occurred in the**
44 **sample.**

45
46
47
48
49
50
51 The paper comprises of six sections, including this introduction. Section Two illustrates
52 the theoretical background of the study. Section Three describes data used and
53 methodology, while section Four examines the results gathered from the analysis. Section
54 Five discusses findings in relation to possible policies and actions aimed at preserving the
55 availability of services and facilities within rural areas. Section Six concludes.

2. The decline of services and retailers within rural communities in England

The reasons for the decline in number of village services across England are not always clear. From the literature, we can identify some generic causes that can be applied to the majority of rural retailers, such as are the rise of supermarket chains (CRC, 2007a; Cabras, 2011) or spatial re-distribution of postal and banking services into larger town (CRC, 2007b; Wilson, 2017); as well some more individualistic reasons pertaining to changes in lifestyle, such as a sharp rise in personal mobility, and an increasing accessibility to the internet and online services (Wilson, 2017). The combination of these factors has meant that many consumers have been able to purchase all their groceries at one destination, or have them delivered to their door at a relatively low price. Many traditional village services like the grocery store, the pub or the bakery have often struggled to compete with prices and offers of the large supermarket chains. Nearly all village services have had to contend with these changes, with some even contending with additional factors. The village pub, for example, endured changes in government legislation and policies, alongside changes in the behaviour of both landlords and consumers (Pratten, 2007). Similarly, the village blacksmith has had to adapt in light of technological advances and the changing methods of farming (Buckton, 2005). As a result, general survival rates of many services in rural areas decreased dramatically in the past fifty years (Wilson, 2017).

The decline of rural services has been observed also in presence of significant levels of 'counterurbanisation', thus increasing levels of migration from urban to rural areas of the since the 1990s (see Champion and Sheppard, 2006; Bosworth, 2010). On the one hand, counterurbanisation saw higher number of new rural residents in retirement and preretirement ages and, on the other hand, young families with children accompanying their parents (Champion and Sheppard, 2006). As a result, rural in-migration became associated with an ageing rural population and the potential stagnation of rural areas, despite increases in non-traditional rural enterprises (Bosworth and Venhorst, 2018). **Equally, the reduced size of local labour markets and the dependence on commuting for higher salaried employment adds to disparities between those who drive or not, and between "ex-urbanites" and local rural workers (Bosworth and Venhorst, 2018).**

Little research so far has examined what the reduction in the number of services and amenities actually means for rural communities, particularly in terms of social capital

1
2
3 community cohesion. Typically, rural research has tended to look in-depth at the
4 importance of one particular service, rather than encompassing village services *per se*.
5 The central issue arising from this is that, whilst the importance in the village of some
6 services has been highlighted (e.g. see the extensive work of Cabras² on village pubs), the
7 importance of others such as community halls and grocery stores remain somehow
8 neglected. The village store, for example, as a stand-alone enterprise has often been
9 accredited as having a wide-ranging importance for rural communities (CRC, 2007a;
10 Bensley, 2010; Rural Shops Alliance, 2015; Associations of Convenience Stores, 2016). Yet
11 it has not featured heavily in rural research. Consequently, ambiguity exists in relation to
12 where its importance lies and how its decline in number is affecting villages and their
13 communities.

14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
Previous studies addressing rural and village services mainly focused on exploring
their economic importance and impact at a local level. For example, small village retailers
appear to be important generators of part-time and casual employment (Rural Shops
Alliance, 2015), and pubs and bars provide about 119,000 jobs in rural areas of England
and Wales (ONS, 2018). This not only highlights the importance of village services as
sources of employment, but also rises the - to date - unanswered question of how the
closure affects employees, their families and their local community. As stated by
Campaign for Protect Rural England (CPRE, 2006:1): “the loss of local services... creates an
economic cycle where there is no longer the critical mass of local provision necessary to
make up a vibrant local economy”. Hence, the closure of village services can have a
profound negative effect on the viability of other local services. For instance, small rural
businesses frequently make use of local post offices: when these close, those businesses
have to travel further afield or to relocate to another area (CPRE, 2006).

**The financial crisis of 2008 and subsequent austerity measures had a significant
impact on the economy of rural communities, frequently resulting in a progressive
redistribution of resources and services from peripheral and spatially remote areas to
larger towns and urban centres (Shaw and Ferguson, 2012). However, in recent years,
legislation in the UK as increasingly granted protection to local services and at helping
residents protect their community assets. The ‘Big Society’ manifesto, launched by the**

² Cabras and Reggiani, 2010; Cabras 2011, Cabras and Bosworth, 2014; Mount and Cabras, 2015; Cabras and Mount, 2017

1
2
3 Conservative Party and promoted under the Coalition Government (2010-2015), aimed
4 at supporting policies and initiatives to devolve powers to communities, establishing a
5 greater role in public services for voluntary and community organisations (Lowdens and
6 Pratchett, 2012). A key principle of the Big Society agenda was the transfer of power
7 from central to local government, with the intent to increase community
8 empowerment, thus entailing engagement within local communities through higher
9 participation in decision-making processes (Lawson and Kearns, 2014), and providing
10 them with instruments to gain control of local assets (Lowdens and Pratchett, 2012;
11 Rolfe, 2016).

12
13
14
15
16
17
18
19
20 Based on these premises, the Localism Act, introduced by Parliament in 2011,
21 increases the level of control for local authorities and parish councils on matters that
22 arise within local communities, including decisions related to community assets and
23 services. In particular, community groups are given priority with regard to services and
24 assets of community value (ACVs), such as pubs, village shops, libraries, and post
25 offices: community groups can indicate these places to local authorities; the latter are
26 then required to insert them on a protected list. When listed assets come up for sale or
27 change of ownership, community groups are given enough time to raise funds to bid
28 and buy the asset when it comes on the open market (Parliament, 2011).

29
30
31
32
33
34
35
36
37 Throughout rural England there are examples where local communities have taken
38 the opportunity to buy or lease community assets such as village pubs and stores (see
39 for instance Mayo and Ross, 2009; and Cabras, 2011). In the majority of these instances
40 communities have benefited from funds sourced by organisations such as Pub is the
41 Hub, Rural Shops Alliance, and the Plunket Foundation. It can be argued that the input
42 generated from these sources contributes significantly to the short and long-term
43 viability of village services, as these organisations are able to help communities in
44 different ways e.g. mobilising financial and logistic resources, providing expert advice
45 and consultancy on planning and building regulations etc (Cabras, 2011).

46
47
48
49
50
51
52
53
54
55
56
57
58
59
60 However, while the support made available by from organisations and the measures
provided by the Localism Act may help villagers to rescue more third places from
unnecessary closure, rural communities remain diverse and receptive to both the local
and the national political and economic climate. As highlighted by Skerratt and Steiner
(2012:333), the wider literature about community empowerment takes insufficient

1
2
3 account of the complexities of community processes, 'particularly amongst those who
4 do not engage – either through choice or through exclusion (...) there are opportunities
5 to engage in community activities [for villagers and local residents], but that lack of
6 time and previous negative experiences are barriers to development and reasons for
7 failure of initiatives'. In addition, the presence of different sub-groups, with different
8 levels of leverage and influence, can shape decision-making processes within
9 communities and villages (Skerret and Steiner, 2012; Rolfe, 2016). Therefore, what is
10 economically viable in one village may not be in another resulting in a reduction,
11 withdrawal or closure of a particular service.
12
13

14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

Whilst there is a rationale given as to why service decline has or is taking place, there is little to no investigation as to how the service withdrawal, reduction or closure has or will impact rural communities (Cabras and Bosworth, 2014; Markham and Bosworth, 2016). The social importance pertaining to village services, particular with regard to their role as third places in fostering and facilitates relationships across different groups of residents within local communities, seems significant. However, divisions among different groups within the same community may frequently even in the smallest ones, with members of a given group keen to exclude and/or impose their will on non-members (Besser, 2009; Lawson and Kearns, 2014). For instance, rural residents may have different perceptions of places such as pubs, where personal social networks can be impeded as well as be made and cemented. However, village pubs and the activities within those spaces could serve to both include and marginalise particular groups (Hunt and Satterlee, 1986a; Hunt, 1991; Leyshon, 2005). Likewise, village services such as shops and libraries offer goods and services that certain categories of residents, such as older people or those with poor transport provision, rely on for a number of daily activities. In doing so, such services not only supply physical provisions that some residents may need, but also work as a means by which they are able to interact with others in the same community. In other words, going to the local store to buy basic grocery provisions represent the only interaction some residents can have with other people, promoting cohesion amongst community members, and influencing the quality of their health and wellbeing.

1
2
3 In light of these considerations, services and facilities in rural areas might have
4 become even more important for the English countryside and for rural economies and
5 society in general, also in relation to regeneration policies and strategies (Lawless 2011).
6
7
8
9

10 **3. Methodology and data-analysis**

11
12 **We propose the following research questions: *How do the presence of facilities and***
13 ***the availability of services affect rural communities in England? Specifically, how does***
14 ***the decline of village services affect levels of community cohesion in rural areas? And***
15 ***does this decline have the same impact everywhere, or it is different across different***
16 ***communities and/or areas?***
17
18
19
20

21 To develop our study, we used information extracted from the Survey of Rural Services
22 (SRS) conducted by Countryside Agency (2003), and from seven local authorities and
23 organizations (Cambridgeshire County Council, Wiltshire County Council, Community
24 Impact Buckinghamshire, Northamptonshire ACRE, Suffolk ACRE, the Rural Community
25 Council of Essex and the Rural Community Council of Leicestershire and Rutland). Data
26 were collected between 2000 and 2010³. Figure 1 illustrates the location of parishes
27 within their respective local authorities.
28
29
30
31
32
33

34 Based upon these data, we compiled a dataset with the aim to examine the impact of
35 services and amenities on level of community cohesion and wellbeing in rural
36 communities. The dataset included information specifically related to rural parishes in the
37 local authorities, identified by using the definition proposed by Cabras and Reggiani
38 (2010, p.949) as parishes “with no more than 3,000 inhabitants, situated at least 5 miles
39 (or 10 minutes’ drive) from towns or larger parishes counting 5,000 inhabitants or more”.
40 Following this definition, we identified 284 rural parishes for which information was
41 available within the ten years span considered.
42
43
44
45
46
47
48

49 The level of observed community cohesion for a given area is argued to be function of
50 a variety of inputs such as common values and culture, social networks and place
51 attachment (Kearns and Forrest, 2000). Building on these factors, we tested the index
52
53
54

55
56 ³ With the Countryside Agency disbanded in 2009, the collection of data regarding facilities and services in rural
57 England ceased to be conducted at a national level. However a restricted number of local authorities and
58 organisations, such as Rural Service Networks (RSN) and the Actions with Communities in Rural England (ACRE),
59 continued collecting data across English parishes. Information presented and analysed in this study has been
60 collected by local authorities and organisation using the same template in the two points of time considered.
Therefore, the selection of geographical areas analysed in our paper has been dictated by data availability.

1
2
3 measure of community cohesion (COMCOH) created by Cabras and Mount (2017) to
4 conduct their analysis. Cabras and Mount (2017) used their index to investigate the
5 relationship between pubs and levels of community cohesion in rural areas, neglecting
6 the relationship between community cohesion and any other service or amenity locally
7 available. The COMCOH index represents a proxy to measure the level of activities and
8 engagement among residents in a given community, providing a value estimation of
9 community cohesion.

10
11
12 The index used for this study comprises 21 binary categorical variables across four
13 main components: leisure activities (LEI)–variables relating to a community’s access to
14 social clubs and recreational activities; communication (COM)–variables relating to the
15 spread of information within the community; food facilities (FF)–variables relating to a
16 community’s access to local food facilities; volunteering (VOL)–variables relating to
17 community-based voluntary activities. Table 1 provides the variable breakdown of these
18 components, which were used to categorize variables in the dataset.

19
20
21 Using the COMCOH index, we seek to extend the analysis conducted by Cabras and
22 Mount by examining the impact of different services and facilities on levels of community
23 cohesion in rural parishes of England. More specifically, the focus is on the presence or
24 absence in the parish of five types of services and retailers: community halls, village
25 shops, libraries, post offices and pubs. This choice is dictated by the data available for the
26 selected parishes within the period of examination, since information available for other
27 types of services and facilities (e.g. GPs and local surgeries, bank branches, schools etc.)
28 resulted severely incomplete between the two time points considered.

29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45 **[FIGURE 1 HERE]**

46
47
48
49 **[TABLE 1 HERE]**

50
51
52 Table 2 displays summary statistics of variables between the two periods considered,
53 including changes in counts measured with differences. The COMCOH index shows a
54 slight average increase (1.01) between 2000 and 2010, similar to almost all the
55 demographic variables except for the number of residents classified as economically
56 inactive, who registered a decrease (-55.43). Among services and facilities, average
57
58
59
60

decreases can be observed for pubs (-1.03), village shop (-0.05), and community halls (-0.02). The slight increase in the average numbers of libraries and post offices might be explained with an increment of mobile library services supplied by local authorities, and by the diffusion of post office services supplied by other retailers; it may not reflect an actual growth in the number of permanent libraries and post offices within selected parishes.

An Ordinary Least Square (OLS) regression approach is adopted using a number of variables to estimate the impact of pubs on COMCOH index. The empirical model is specified as follows:

$$\text{COMCOH}_{i,t} = f(\text{population}_{i,t}, \text{employed}_{i,t}, \text{unemployed}_{i,t}, \text{inactive}_{i,t}, \text{level1}_{i,t}, \text{level2}_{i,t}, \text{level3}_{i,t}, \text{level4}_{i,t}, \text{villageshop}_{i,t}, \text{communityhall}_{i,t}, \text{library}_{i,t}, \text{postoffice}_{i,t}, \text{pubtotal}_{i,t}) \quad (1)$$

In the function, $\text{population}_{i,t}$ is the population in parish i at time t ; employed and unemployed refer to the number of employed/unemployed residents in the parish respectively; and inactive indicates the number of residents either studying or retired. In addition, levels 1 to 4 indicate the level of qualifications hold by residents in parishes based on categories used by the Official Labour Market Statistics (excluding other qualifications such as apprenticeships; see Appendix). The latter variable is used in the econometric analysis as a proxy for income as no information on salaries is available at parish level.

Table 3 shows the correlation matrix for all variables included in the model in 2000 and 2010. Most variables do not show any significant correlation, although some (e.g. number of employed residents and residents holding levels of qualification 1 to 4) are highly correlated. Although strong correlations may suggest excluding this group of variables from the regression analysis to avoid issues related to multicollinearity, we decided to include them to verify the severity of these potential issues. As shown from regression outputs, adding or deleting variables defining number of employed residents and residents holding levels of qualification does not change regression coefficients dramatically.

1
2
3
4
5 **[TABLE 2 HERE]**
6
7

8 **[TABLE 3 HERE]**
9
10

11
12 Results from the OLS regression analysis explicated by Equation (1) are shown in Table
13
14 4. Two sets of four models each are developed by elaborating on observations collected
15 in 2000 and 2010 respectively. Models developed on 2000 data indicate that community
16 halls and pubs have a large positive impact on COMCOH index among services. Model 3.1,
17 which shows the largest R-square value among the four models, also indicates a positive
18 impact associated with higher numbers of inactive residents.
19
20
21
22

23 Results for the year 2010 confirm the positive impact of community halls and pubs on
24 the COMCOH index, although coefficients related to pubs almost doubled compared to
25 2000 values, and coefficients to community halls reduced of about a third compared to
26 previous time. Interestingly, Model 3.2 and Model 4.2 report libraries and post offices
27 showing statistically significant coefficients, although again these might be related to the
28 growth of mobile library and off-premise post-office services within the parish
29 considered.
30
31
32
33
34
35

36 Table 5 shows results of the regression analysis addressing differential changes
37 calculated between 2000 and 2010 values. Among attribute variables, it seems that
38 positive changes in COMCOH index in the period considered are related to decline in both
39 population and unemployment, and to an increase in the proportion of inactive residents
40 within the parishes considered – possible related to an increased number of retired
41 residents. No significant effect on the COMCOH index seems associated with any
42 variation in education measured by the four levels of qualification.
43
44
45
46
47
48

49 The saturated model shows an R-square nearly doubled compared to the baseline
50 model, indicating a better fit of this model with regard to explaining variations in the
51 COMCOH index. Variance inflation factors (VIFs), which assess how much the variance of
52 an estimated regression coefficient increases if predictors are correlated, are close to 1
53 for the key variables investigated, confirming multicollinearity not representing a
54 potential issue for the model.
55
56
57
58
59
60

1
2
3 **[TABLE 4 HERE]**
4
5

6
7 **[TABLE 5 HERE]**
8
9

10 Results in Table 6 identify the impact of local facilities and services on the COMCOH by
11 controlling for population size, using a thousand residents as threshold for grouping
12 parishes. In 2000, services such as shops, libraries and pubs all had a significant and
13 positive impact on levels of community cohesions measured among smaller parishes;
14 while post offices appear to have the strongest impact on levels of community cohesions
15 measured in largest parishes (together with pubs and, to a lower extent, community
16 halls). In 2010, the positive effect of library and pubs is confirmed on community
17 cohesion among smallest parishes, although the impact of library is nearly half compared
18 to what measured ten years earlier, while the importance of pubs grows. Post offices also
19 acquire relevance in relation to assessing community cohesion, while unexpectedly the
20 unemployment coefficient shows a significant positive sign in the model. For largest
21 parishes, pubs appear to be the only essential service with a positive impact.
22

23 Finally, results reported in Table 7 show the impact of local facilities and services on
24 the COMCOH by controlling for levels of education, using percentage of residents holding
25 level 4 qualifications as threshold to select groups. In 2000, the presence of pubs, shops
26 and community halls has a positive impact on shaping levels of community cohesion, but
27 this positive impact is maintained (although reduced) only by pubs and community halls
28 when examining larger parishes. Regressions run for observed parishes in 2010 confirm
29 the significant, positive impact of pubs on the COMCOH in both smaller and larger
30 parishes. However, while libraries shows a strong positive impact on smaller parishes,
31 post offices appear to be significant with regard to assessing community cohesion in
32 larger parishes.
33

34
35 **[TABLE 6 HERE]**
36
37

38
39 **[TABLE 7 HERE]**
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

4. Discussion

The analysis conducted in the previous section and the findings generated provide more clarity to the functional relationship between small retailers and levels of community cohesion in rural areas of England. Overall, results identify the positive impact of some of them on the community cohesion index, which provides a proxy of the level of social engagement and involvement among residents living in the English countryside.

The regression analysis developed using data collected between 2000 and 2010 show a strong, statistically significant impact of pubs and (to a lesser extent) post office services on the level of community cohesion, measured by the COMCOH index, and sustained over time. Considering variation in time, results indicate that the magnitude of impact of pubs has increased over the last decade. This demonstrates an increased criticality of pubs for sustaining rural life and wellbeing in the area in terms of community cohesion, corroborating evidence in literature (Pratten, 2007; Cabras 2011; Cabras and Mount, 2017) and confirming the significance of pubs as third places in rural and remote areas of England.

Among other services and amenities, community halls seem to have lost their importance as third places with regard to community cohesion: they were significant in 2000 particularly in smaller parishes and regardless the levels of qualification of residents, but they did not show any significant impact on the COMCOH in 2010. However, findings from the models indicate that other facilities may have replaced halls. For instance, in less affluent parishes, the presence of libraries is found to be highly significant in relation to the measured index, while the presence of post offices is found to be significant in more affluent parishes. It is possible that libraries could provide essential facilities to residents that may not be able either to afford them, or *master* them (mostly in case of elderly residents), such as internet connection and access to online services. Libraries would then provide a better platform for socialisation and social relationships for these segments of residents. Conversely, wealthier and affluent residents may regard the presence of a post office as more important, due to its role and effects (in terms of services provided) on business and entrepreneurial activities.

There are likely to be many varied reasons as to why places such small retailers and amenities in sampled parishes might generate a positive impact on levels of community

1
2
3 cohesion. It can be argued, for instance, that village pubs provide a physical space where
4 social networks can be developed and strengthened (Hunt and Satterlee, 1986b;
5 Kingsnorth, 2008). Similarly, rural post offices and shops frequently act as a social spaces
6 whereby individual and community networks can be created, expanded and
7 strengthened (CRC 2007b).
8
9
10
11

12 Although some rural services can help to facilitate social networks and therefore could
13 be described as being a social hub, there are also aspects that may limit their positive
14 impact within rural communities. For example, rural pubs have been traditionally a 'male'
15 dominated space in which women have typically been 'excluded' (Leyshon, 2005), and
16 these establishments may in some cases operate in a manner which excludes those who
17 do not hold shared 'group' values or adhere to common practices (Hunt and Satterlee,
18 1986b). Thus, whilst rural services can act as a social hub and in doing so aid community
19 cohesion, it must be acknowledged that they can also marginalise some groups of the
20 rural population (Leyshon, 2008; Besser, 2009).
21
22
23
24
25
26
27
28

29 The changes in the COMCOH index in the period considered show higher levels of
30 community cohesion among those shrinking communities that experienced a decline in
31 unemployment and an increase in the number of higher educated residents, these two
32 variables used as proxies of wealth in the analysis. This finding is important: given the
33 number of people relocating from urban areas to the countryside, which has constantly
34 increased in recent years (CRC, 2010; ONS, 2016, DEFRA, 2018), although most rural
35 villages and hamlets in sparse settings showing a slight decline (0.2 percent) in population
36 between 2011 and 2016 (DEFRA, 2018). These figures reveal a renewed interest for living
37 in rural areas, but the declining number of services appears to mismatch an increased
38 demand generated by a higher in population (Cabras and Mount, 2017), with possible
39 negative effects on local firms and enterprises that depend on those services for their
40 business (Champion and Brown, 2012). Thus, to ensure that the quality of life of rural
41 residents is maintained, there is a distinct need to promote factors associated with
42 community cohesion and social integration (Atterton, 2007).
43
44
45
46
47
48
49
50
51
52
53

54 **This statement seems particularly relevant in relation to smaller parishes, frequently**
55 **characterized by a high proportion of ageing population and by lower availability of**
56 **facilities and services. As shown by our study, since third places operating in smaller**
57 **communities appear to generate a more significant impact on the index of community**
58
59
60

1
2
3 cohesion compared to larger parishes, the disappearance of local services and facilities
4 for smaller communities would represent a far higher loss in terms of community
5 wellbeing. In particular, findings show that community halls less important compared
6 to other services in view of increasing community cohesion: this could be a further
7 proof that private enterprises are becoming more important to rural community
8 wellbeing. As the presence of services result in higher level of community cohesion in
9 rural areas, this could lead to services being better used and thus more profitable.
10
11

12
13
14
15
16 If services in rural areas are to survive, however, then there needs to be motivation,
17 commitment and determination from a number of different stakeholders including the
18 Government, local authorities and policymakers. As highlighted by Curry (2012: 100),
19 opportunities need to be developed though both spatial planning and economic
20 development polices in order to achieve sustainable development in rural areas, and
21 greater attention 'should be paid to mental health and to economic systems that
22 maximize social or community wellbeing (...) making the most of local assets'. More
23 collaboration among public sector bodies and organisations can result in improved
24 services at a local level (Elliott et al, 2018).
25
26
27
28
29
30
31

32
33 Rural communities can also play an important role. On the one hand, the decline of
34 local services might represent an opportunity for more community participation. The
35 instruments provided by the Localism Act are significant in view of preserving assets of
36 community value and rescuing them from closure, and could represent an incentive for
37 residents to get involved within common indicatives and act together. However, on the
38 other hand, the lack of community cohesion might represent a challenge for community
39 engagement and involvement. For instance, many rural communities might lack of
40 experience or knowledge with regard to starting processes and procedures to preserve
41 their assets of community value. Frequently, no guidance is available especially at a
42 local level, and residents may struggle to act and make decisions regarding how to set
43 up and sustain their community assets. In addition, there may be power relations at a
44 local level which may affect development initiatives, having implications for projects
45 and initiatives within communities (Skerrat and Steiner, 2012; Elliott et al, 2018).
46
47
48
49
50
51
52
53
54

55
56 In light of these considerations, our study can provide an opportunity for
57 policymakers and local administrators to evaluate current policies and actions in order
58 to better support the development and maintenance of spatially remote communities.
59
60

1
2
3 **For instance, given the positive impact of pubs on community cohesion, specific policies**
4 **should be design in support of these businesses within rural areas. Although the**
5 **Localism Act provides local communities and groups of residents with means to protect**
6 **their pubs as ACVs, most recent figures provided by the ONS (2018) show a fall in the**
7 **number of rural pubs between 2012 and 2017, registering a 10 percent decrease (14**
8 **percent in most rural villages and sparse settings), a steeper decline compared to urban**
9 **pubs (8 percent).**

10
11
12
13
14
15
16 **The Neighbourhood Planning Act, passed by Parliament in 2017, changes the rules**
17 **related to planning permission needed to demolish a drinking establishment, or a**
18 **drinking establishment with expanded food provision. The previous requirement for**
19 **local planning authorities to verify whether the drinking establishment was nominated**
20 **as an ACV is no longer relevant (Parliament, 2017). This measure may be more effective**
21 **in terms of preserving rural pubs and their positive impact: even if our analysis does not**
22 **clarify about a cause-effect relationship, there appears to be some circular causation**
23 **with cohesion supporting these businesses that in turn strengthen cohesion at a local**
24 **level, bringing multiple benefits for both residents and entrepreneurs.**

35 36 **5. Conclusions**

37
38
39 The study we presented in this paper investigated the effects of the decline of services
40 and facilities in the English countryside. Focusing on data and information provided for
41 284 rural parishes in England between 2000 and 2010, we analysed the impact of changes
42 in the number of services and amenities available at a local level on the COMCOH index
43 created by Cabras and Mount (2017). Results corroborate and expand previous findings
44 from Cabras and Mount, confirming the importance of pubs in relation to community
45 cohesion in rural areas of England. In addition, results indicate that some services such as
46 libraries and post offices have a larger impact on community cohesion compared to
47 others, this impact being evaluated by controlling for time, size and levels of education
48 (used as a proxy for income) of resident population in the sample of parishes analysed.

49
50
51
52
53
54
55
56
57 The econometric models developed in our analysis do not identify a clear causality
58 function or effect among variables analysed, although a strong level of association
59
60

1
2
3 between the COMCOH index and a number of independent variables is proved and
4 maintained in time. We recognise that a potential issue related to endogeneity in the
5 models may arise from establishing the direction of causality between the presence of
6 services and levels of community cohesion. In particular, relationships explored in the
7 models might be affected by some unobserved variables possibly correlated to
8 dependent and independent variables. However, it was not the purpose of this study to
9 explore a cause-effect relationship, but rather to examine and verify that a high degree of
10 association exists between the availability of services and levels of community cohesion
11 reported in rural England.
12
13
14
15
16
17
18

19 **The analysis offered in this paper responds to calls from scholars for more research**
20 **on this particular theme in the field of rural studies (Bosworth 2010, Mount and Cabras,**
21 **2015; Cabras and Mount 2017), and provides more evidence to understand the effects**
22 **of the presence of services in rural areas and their impact on local communities in time,**
23 **compared to a cross sectional analysis.** However, given the challenges in obtaining data
24 relating to services and amenities available at a parish level (also due to the reduction in
25 financial support from Government and local authorities for this type of research e.g. the
26 disbandment of the Countryside Agency in 2009 is an example); a broader longitudinal
27 study of services and amenities available in rural areas of England might prove to be a
28 very complex task.
29
30
31
32
33
34
35
36
37

38 While we recognise the importance of quantifying and measuring how services
39 facilitate and promote community cohesion in rural England, we also foresee the need for
40 further research in the field. In particular, expanding qualitative research on this theme
41 (for instance, using focus groups and interviews with local residents) could increase and
42 further reinforce the existing knowledge about this important theme, deepening the
43 general understanding of multiple issues associated with communal living. This would
44 provide practitioners and policymakers with updated and valuable instruments to design,
45 develop and deliver policies aimed at increasing the quality of life and wellbeing for
46 residents in peripheral and remote areas.
47
48
49
50
51
52
53
54
55
56
57
58
59
60

References

Associations of Convenience Stores (2017) *The Rural Shop Report*. Farnborough: ACS Report. Available at: <https://www.acs.org.uk/wp-content/uploads/2017/01/ACS-Rural-Shops-Report-2017.pdf> (Accessed 25 May 2017)

Atterton J (2007) The 'Strength of Weak Ties': Social networking by business owners in the Highlands and Islands of Scotland. *Sociologia Ruralis* 47(3): 228–45.

BBC News (2010) British village life 'dying out' after pub closures. Press release 18 September. Available at: <https://www.bbc.co.uk/news/uk-11353767> [Accessed 30 December 2018]

Bensley L (2010) *The Village Shop*. Oxford: Shire Publications

Besser T L (2009) Changes in small town social capital and civic engagement. *Journal of Rural Studies* 25(1): 185-193

Bibby PR and Shepherd JW (2004) *Developing a New Classification of Urban and Rural Areas for Policy Purposes – the Methodology*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/137655/ruralurban-definition-methodology-technical.pdf [Accessed 15 December 2018]

Booth L and Hough D (2014) *TNT Post and Royal Mail: end-to-end competition in postal services*. House of Commons Library, SN06935.

Bosworth G (2010) Commercial counterurbanisation: an emerging force in rural economic development. *Environment and Planning A* 42(2): 966-981

Bosworth G and Venhorst V (2018) Economic linkages between urban and rural regions—what's in it for the rural? *Regional Studies* 52(8): 1075-1085

Buckton H (2005) *Yesterday's Country Village*. Newton Abbot (UK): Devon, David and Charles

Cabras I (2011) Industrial and Provident Societies and village pubs: Exploring community cohesion in rural Britain. *Environment and Planning A* 43(4): 2435–2451.

Cabras I and Reggiani, C (2010) Village Pubs as a social propellant in rural areas: An econometric study. *Journal of Environmental Planning and Management* 53(7): 947–62

Cabras I and Bosworth G (2014) Embedded models of rural entrepreneurship: The case of pubs in Cumbria, North West of England. *Local Economy* 29(6/7): 598-616

Cabras I and Mount M (2017) Assessing the impact of pubs on community cohesion and wellbeing in the English countryside: a longitudinal study. *International Journal of Contemporary Hospitality Management* 29(1): 55-79

1
2
3
4 Campaign for Protect Rural England (2006) *Policy Position Statement*. London: CPRE
5 Publications. Available at:
6 <http://www.cpre.org.uk/resources/countryside/item/download/265>
7 [Accessed 17 May 2017]
8
9

10
11 Champion A and Brown D (2012) Migration and urban-rural population redistribution in
12 the UK and US. In Shucksmith M, Brown D, Shortall S, Vergunst J, Warner M (Eds.): *Rural*
13 *Transformations and Rural Policies in the US and UK*. London: Routledge 39-57
14

15
16 Champion A and Sheppard J (2006) Demographic change in rural England. In Eds P and
17 Lowe, L Speakman: *The Ageing Countryside: The Growing Older Population of Rural*
18 *England* London: Age Concern 29-50
19

20
21 Clarke D and Wollett S (1990) *English village services in the eighties*. London: Rural
22 Development Commission/ACRE
23

24 **Collison P (2016) *Why 3,000 bank branches must close*. The Guardian, press release 17**
25 **September. Available at:**
26 **<https://www.theguardian.com/money/blog/2016/sep/17/why-bank-branches-closing>**
27 **[Accessed 26 December 2018]**
28
29

30
31 Countryside Agency (2003) *Rural Proofing in 2002/03: A report to Government by the*
32 *Countryside Agency*. Cheltenham: Countryside Agency
33

34
35 Commission for Rural Communities (2007a) *The economic significance of post offices*
36 *combined with a village shop*. London: CRC
37

38
39 Commission for Rural Communities (2007b) *The future of the rural post office network*.
40 London, CRC
41

42
43 Commission for Rural Communities (2010) *State of the Countryside Update: Housing*
44 *Demand and Supply*. Available at: <http://www.defra.gov.uk/crc/documents/state-of-the-countryside-report/sotc2010/> [Accessed 15 May 2017]
45

46
47 Crisp R (2013) Communities with oomph? Exploring the potential for stronger social ties
48 to revitalise disadvantaged neighbourhoods. *Environment and Planning C: Government*
49 *and Policy* 31(2): 324-339.
50

51 **Curry N (2012) *Sustainable rural development in England: Policy problems and equity***
52 ***consequences*. *Local Economy* 27(2): 95-102**
53

54
55 Department of Communities and Local Government. (2008). *The Government's Response*
56 *to the Commission on Integration and Cohesion*. Available at:
57 <http://www.communities.gov.uk/documents/communities/pdf/681624.pdf> [Accessed 15
58 May 2017]
59
60

1
2
3 **Department for Environment, Food and Rural Affairs (2018) *Statistical Digest of Rural***
4 ***England, January Edition v2. London: DEFRA***
5

6
7 **Elliott I, Feiszes V and Tarrega M (2018) *The Community Empowerment Act and***
8 ***Localism under devolution in Scotland. International Journal of Public Sector***
9 ***Management (forthcoming)***
10

11 Granovetter M (1985) Economic action and social structure: the problem of
12 embeddedness. *American Journal of Sociology* 91(3): 481–510.
13

14
15 Higgs G and Langford M (2013) Investigating the validity of rural–urban distinctions in the
16 impacts of changing service provision: The example of postal service reconfiguration in
17 Wales. *Geoforum* 47(1): 53–64
18

19
20 Hunt G and Satterlee S (1986a) The pub, the village and the people. *Human Organisation*
21 45(1): 62-74
22

23
24 Hunt G and Satterlee S (1986b) Cohesion and division: drinking in an English village. *Man*
25 21(3): 521-37
26

27
28 Hunt G (1991) The Middle Class revisited: eating and drinking in an English village.
29 *Western Folklore* 50(4): 401-420
30

31
32 Kearns A and Forrest R (2000) Social cohesion and multilevel urban governance. *Urban*
33 *Studies* 37(4): 995–1017
34

35 Kingsnorth, P. (2008) *Real England – The Battle Against the Bland*. London: Portobello
36 Books
37

38
39 **Lawson L and A Kearns (2010) ‘Community empowerment’ in the context of the**
40 **Glasgow housing stock transfer. *Urban Studies* 47(7): 1459-1478**
41

42
43 **Lawson L and A Kearns (2014) Rethinking the purpose of community empowerment in**
44 **neighbourhood regeneration: The need for policy clarity. *Local Economy* 29(1-2): 65-81**
45

46 Lawless P (2011) Understanding the scale and nature of outcome change in area-
47 regeneration programmes: Evidence from the New Deal for Communities programme in
48 England. *Environment and Planning C: Government and Policy* 29(2): 520–532
49

50
51 Leyshon M (2005) ‘No place for a girl’: Rural youth, pubs and the performance of
52 masculinity’. In Little J and Morris C (eds.): *Critical studies in Rural Gender Issues*.
53 Aldershot: Ashgate Publishing Limited, pp.110-128
54

55
56 Leyshon, M. (2008) ‘We’re stuck in the corner’: Young women, embodiment and drinking
57 in the countryside. *Drugs, Education, Prevention and Policy* 15(3): 267-289
58

59 **Local Government Association (2017) *Health and Wellbeing in Rural England*. London:**
60

1
2
3 **Local Government Association. Available at:**
4 <https://www.local.gov.uk/health-and-wellbeing-rural-areas> [Accessed 15 December
5 2018]
6
7

8
9 **Lowndes V and Pratchett L (2012) Local governance under the Coalition Government:**
10 **Austerity, Localism and the Big Society'. *Local Government Studies* 38(1): 21-40**
11
12

13 Malecki E J (2012). Regional social capital: Why it matters. *Regional Studies* 46(8): 1023–
14 1039.
15

16 Markham C and Bosworth G (2016) The village pub in the twenty-first century:
17 embeddedness and the 'local'. In Cabras I, Higgins D and Preece D (Eds.): *Brewing, Beer*
18 *and Pubs: a Global Perspective*. London: Palgrave Macmillan 266-281
19
20

21 Mayo, E. and Ross , J. (2009) *Calling Time on pub closures: the cooperative answer*.
22 Woodstock: Plunkett Foundation. Available at:
23 [http://offline.cooperativesuk.coop/live/images/cme_resources/Public/Publications/Calli](http://offline.cooperativesuk.coop/live/images/cme_resources/Public/Publications/Calling-Time.pdf)
24 [ng-Time.pdf](http://offline.cooperativesuk.coop/live/images/cme_resources/Public/Publications/Calling-Time.pdf) [Accessed 10 May 2017]
25
26

27 Moseley, M. (2000) England's village services in the late 1990's. *Town Planning Review*,
28 71(4): 415-433
29
30

31 Mount M and Cabras I (2015) Community cohesion and village pubs in Northern England:
32 An econometric study. *Regional Studies* 50(7): 1203-1216
33
34

35 Oldenburg R (1989) *The Great Good Place*. New York: Marlowe and Company
36

37 Oldenburg R (2001) *Celebrating the Third Place: Inspiring stories about the "great good*
38 *places" at the heart of our communities*. New York: Da Capo Press
39
40

41 Office for National Statistics (2016) *Mid-Population Statistics*. London: Office for National
42 Statistics
43
44

45 **Office for National Statistics (2018) *The Economies of Ales*. London: Office for National**
46 **Statistics**
47

48 Parliament, (2011) Localism Act; Chapter 20. London: HM Stationery Office
49
50

51 Parliament, (2017) Neighbourhood Planning Act; Chapter 2. London: HM Stationery Office
52

53 Pratten J D (2007) The development of the modern UK public house – Part 1: The
54 traditional British public house of the twentieth century. *International Journal of*
55 *Contemporary Hospitality Management* 19(4): 335–42.
56
57

58 Putman, R.D. (2000) *Bowling Alone: The Collapse and Revival of American Community*.
59 New York: Simon and Schuster
60

1
2
3
4 **Ross T. (2013) Lonely lives of the rural elderly. The Telegraph, press release 21 July.**
5 **Available at: [https://www.telegraph.co.uk/news/politics/10194119/Lonely-lives-of-](https://www.telegraph.co.uk/news/politics/10194119/Lonely-lives-of-the-rural-elderly.html)**
6 **[the-rural-elderly.html](https://www.telegraph.co.uk/news/politics/10194119/Lonely-lives-of-the-rural-elderly.html) [Accessed 30 December 2018]**
7

8
9 Rural Development Commission (1994) *Rural Services: Challenges and Opportunities*.
10 Salisbury: RDC
11

12
13 **Rural Service Network (2010) Rural Review of Public Services. Tavistock: RSN. Available**
14 **at: <http://www.rsnonline.org.uk/images/files/ruralreviewofpublicservices2010.pdf>**
15 **[Accessed 10 May 2017]**
16

17
18 Rural Shops Alliance (2015) *Why Rural Shops are Important*. Leicester: RSA. Available at:
19 <http://www.ruralshops.org.uk/why-rural-shops-are-important/> [Accessed 10 May 2017]
20

21
22 **Shaw K and Robinson F (2012) From 'regionalism 'to 'localism': Opportunities and**
23 **challenges for North East England. *Local Economy* 27(3): 232-250**
24

25 **Skerratt S and Steiner A (2012) Working with communities-of-places: Complexities of**
26 **empowerment. *Local Economy* 28(3): 320-338.**
27

28
29 Storper M (1995). The resurgence of regional economies, ten years later the region as a
30 nexus of untraded interdependencies. *European Urban and Regional Studies* 2(3): 191–
31 221.
32

33
34 **Todman L (2018) Shropshire Council service point closures 'will impact on elderly'.**
35 **Shropshire Star, press release 27 December. Available at:**
36 **[https://www.shropshirestar.com/news/politics/2018/12/27/shropshire-council-](https://www.shropshirestar.com/news/politics/2018/12/27/shropshire-council-service-point-closures-will-impact-on-elderly/)**
37 **[service-point-closures-will-impact-on-elderly/](https://www.shropshirestar.com/news/politics/2018/12/27/shropshire-council-service-point-closures-will-impact-on-elderly/) [Accessed 20 December 2018]**
38

39
40 Urry J (2001) *The tourist gaze*, 2nd Edition. London: Routledge
41

42
43 Watson T J and Watson D H (2012) Narratives in society, organizations and individual
44 identities: an ethnographic study of pubs, identity work and the pursuit of 'the real'.
45 *Human Relations* 65(6): 683-704
46

47
48 Wilson B (2017) *State of Rural Services*. Report for Rural England. Available at:
49 <https://www.rsnonline.org.uk/images/files/SORS2016-FinalFullReport-Jan17.pdf>
50 [Accessed 23 June 2017]
51
52
53
54
55
56
57
58
59
60

TABLES AND FIGURES

Table 1: Index components and variables

Domain	Variables	Description	Matched variables
Leisure activities (LEI)	Tennis court	<i>Parish contains a tennis court available for use by local residents</i>	
	Sports hall	<i>Parish contains a sports hall available for use by local residents</i>	X
	Playing field	<i>Parish contains a playing field available for use by local residents</i>	X
	Bowling green	<i>Parish contains a bowling green available for use by local residents</i>	
	Cricket matches	<i>Whether cricket matches are held within the parish</i>	
	Football/ rugby matches	<i>Whether football/ rugby matches are held within the parish</i>	
	Beavers	<i>Presence of beavers/cubs/venture scouts operating within the parish</i>	X
	Brownies	<i>Presence of brownies/rainbows/guides operating within the parish</i>	
Communication (COM)	Retired club	<i>Presence of retired club operating within the parish</i>	X
	Worship	<i>Presence of worship centres/churches in parish</i>	X
	News	<i>Parish has a community newsletter</i>	X
	Music/art events	<i>Whether music/art events are held within the parish</i>	
	Festival/galas	<i>Whether festival/galas are held within the parish</i>	
	Social club	<i>Presence of social club in parish</i>	X
	Noticeboard	<i>Parish has a public noticeboard</i>	X
Food facilities (FF)	Markets	<i>At least one market operating within the parish</i>	X
	Restaurants	<i>At least one restaurant operating within the parish</i>	X
	Cafés	<i>At least one café operating within the parish</i>	X
Volunteering (VOL)	Takeaways	<i>At least one takeaway operating within the parish</i>	
	Voluntary clothes recycling	<i>Presence of voluntary organisation(s) providing clothes recycling</i>	X
Services and Facilities	Voluntary paper recycling	<i>Presence of voluntary organisation(s) providing paper recycling</i>	
	Community Halls	<i>Presence of at least one hall open for public use in parish</i>	X
	Village Shops	<i>Presence of a village shop operating in parish</i>	X
	GP/Surgeries	<i>Presence of a GP/surgery located in parish</i>	
	Libraries	<i>Provision of library services in parish</i>	X
	Bakery	<i>Presence of a bakery operating in parish</i>	
	Post Offices	<i>Provision of post office services in parish</i>	X
	Bank branch	<i>Provision of bank services in parish</i>	
Butchery	<i>Presence of a butchery operating in parish</i>		
Pubs	<i>Presence of at least one public house in parish</i>	X	

Notes: All variables used to calculate the COMCOH are binary and provided in alphabetical order; sport matches classified as taking place on regular basis if frequency is above or equal to two matches per month, music/art events at least once a month.

Sources: The National Archives; Cambridgeshire County Council, Wiltshire County Council, Community Impact Buckinghamshire, Northamptonshire ACRE, Suffolk ACRE, the Rural Community Council of Essex and the Rural Community Council of Leicestershire and Rutland

Table 2: Descriptive statistics for values related to 2000, 2010 and differences between the two periods

	Index	Population	Levels of Employment			Levels of education				Services and facilities				
2000	COMCOH	POP.	Employed	Unemployed	Inactive	L1	L2	L3	L4	Community Hall	Village Shop	Library	Post Office	Pub
Mean	4.64	638.14	308.60	8.87	140.86	68.14	98.82	37.38	111.98	0.81	0.41	0.05	0.10	1.83
Median	5.00	412	201.00	6.00	86.00	43.00	70.00	25.00	74.00	1.00	0.00	0.00	0.00	2.00
Max.	11.00	2793	1757	54	804	351	423	154	530	4.00	10.00	1.00	1.00	12.00
Min.	0.00	50	28.00	0.00	9.00	0.00	14	4	9	0.00	0.00	0.00	0.00	0.00
Std. Dev.	1.63	575	287.15	9.38	129.04	70.81	83.77	31.44	97.31	0.58	0.91	0.22	0.29	1.64
2010	COMCOH	POP.	Employed	Unemployed	Inactive	L1	L2	L3	L4	Community Hall	Village Shop	Library	Post Office	Pub
Mean	5.65	693.57	343.23	11.74	85.43	71.40	92.38	67.13	187.29	0.79	0.37	0.74	0.27	0.80
Median	6.00	437	229.50	7.00	54.00	46.00	60.00	44.50	125.00	1.00	0.00	1.00	0.00	1.00
Max.	11	2880	1624	63	486	369	411	275	886	5.00	3.00	4.00	1.00	5.00
Min.*	0.00	101	-	-	-	6	11	13	41	0.00	0.00	0.00	0.00	0.00
Std. Dev.	1.82	1.50	312.12	12.16	76.80	68.47	82.51	58.11	161.28	0.68	0.54	0.61	0.44	0.76
DIFFER.	COMCOH	POP.	Employed	Unemployed	Inactive	L1	L2	L3	L4	Community Hall	Village Shop	Library	Post Office	Pub
Mean	1.01	55.42	34.64	2.87	-55.43	3.26	1.57	32.78	84.38	-0.02	-0.05	0.69	0.17	-1.03
Median	1.00	20.00	25.50	2.00	-34.50	-2.00	-6.00	21.00	52.00	0.00	0.00	1.00	0.00	-1.00
Max.	7	2400	527.00	32	61	369	367	275	886	4.00	2.00	4.00	1.00	4.00
Min.	-4	-1016	-1072	-19	-593	-129	-185	-69	-420	-3.00	-9.00	-1.00	-1.00	-11.00
Std. Dev.	1.67	225.93	106.49	6.90	64.51	44.62	54.92	40.04	107.81	0.83	0.91	0.67	0.52	1.50

*Information about employment missing with regard to 13 parishes

Table 3: Correlations*

	COMCOH	POP	EMPL.	UNEMPL.	INACTIVE	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	HALL	SHOP	LIBRARY	POST	PUB
COMCOH	1													
2000	-													
2010	-													
POP		1												
2000	0.653	-												
2010	0.466	-												
Employed			1											
2000	0.601	0.948	-											
2010	0.534	0.948	-											
Unemployed				1										
2000	0.537	0.843	0.856	-										
2010	0.451	0.879	0.925	-										
Inactive					1									
2000	0.601	0.927	0.928	0.877	-									
2010	0.543	0.879	0.898	0.844	-									
Ed. Level 1						1								
2000	0.598	0.971	0.971	0.861	0.908	-								
2010	0.400	0.937	0.870	0.868	0.814	-								
Ed. Level 2							1							
2000	0.651	0.985	0.977	0.855	0.936	0.964	-							
2010	0.445	0.958	0.889	0.849	0.834	0.968	-							
Ed. Level 3								1						
2000	0.639	0.954	0.950	0.793	0.900	0.913	0.957	-						
2010	0.436	0.957	0.878	0.828	0.806	0.945	0.970	-						
Ed. Level 4									1					
2000	0.620	0.915	0.915	0.735	0.960	0.834	0.896	0.915	-					
2010	0.508	0.893	0.846	0.756	0.786	0.831	0.891	0.906	-					
Comm. Hall										1				
2000	0.105	-0.023	-0.018	-0.049	-0.069	-0.012	-0.022	0.009	0.009	-				
2010	0.278	0.301	0.301	0.290	0.259	0.220	0.262	0.272	0.298	-				
Village Shop											1			
2000	0.368	0.342	0.336	0.333	0.333	0.342	0.296	0.303	0.342	0.125	-			
2010	0.380	0.447	0.471	0.425	0.437	0.409	0.445	0.439	0.431	0.386	-			
Library												1		
2000	0.275	0.354	0.338	0.343	0.329	0.352	0.345	0.343	0.306	0.012	0.183	-		
2010	0.224	0.148	0.182	0.178	0.190	0.113	0.141	0.163	0.172	0.309	0.283	-		
Post Office													1	
2000	0.081	0.070	0.082	0.020	0.210	0.076	0.080	0.106	0.078	0.032	-0.068	0.034	-	
2010	0.329	0.399	0.399	0.399	0.426	0.372	0.390	0.342	0.316	0.051	0.485	0.098	-	
Pub														1
2000	0.527	0.566	0.556	0.486	0.564	0.526	0.570	0.567	0.537	0.050	0.255	0.275	0.032	-
2010	0.395	0.402	0.441	0.374	0.413	0.379	0.409	0.395	0.362	0.273	0.438	0.103	0.282	-

* No significant coefficients (p -value>0.01) marked in grey

Table 4: OLS Regression models – 2000 and 2010 (Dependent Variable: COMCOH)

	2000				2010			
	Model 1.1	Model 2.1	Model 3.1	Model 4.1	Model 1.2	Model 2.2	Model 3.2	Model 4.2
Constant	3.384*** (0.127)	3.462*** (0.107)	2.986*** (0.175)	3.000*** (0.149)	4.509*** (0.140)	4.707*** (0.151)	4.090*** (0.208)	4.098*** (0.211)
POP	-0.0018 (0.002)	0.0020*** (0.000)	-0.0022 (0.002)	0.0015*** (0.001)	-0.0007** (0.002)	0.0009 (0.001)	-0.0007** (0.002)	0.0006 (0.001)
EMPLOYED	0.0008 (0.002)		0.0011 (0.002)		0.0037*** (0.001)		0.0029** (0.001)	
UNEMPLOYED	-0.0004 (0.017)	-0.0082 (0.016)	-0.0032 (0.018)	-0.00722 (0.016)	-0.0231 (0.0224)	0.0282 (0.034)	-0.0261 (0.022)	0.0140 (0.027)
INACTIVE	0.0055** (0.003)		0.0063** (0.002)		0.010*** (0.003)		0.0082*** (0.003)	
ED. L1†	0.0051 (0.009)		0.0064 (0.0087)		-0.0099 (0.006)		-0.0027 (0.006)	
ED. L2†	0.0045 (0.007)		0.003 (0.0069)		0.0017 (0.006)		-0.0052 (0.007)	
ED. L3†	0.0052 (0.008)		0.0014 (0.009)		-0.0022 (0.009)		-0.0025 (0.009)	
ED. L4†	0.0037 (0.003)		0.0036 (0.003)		0.0006 (0.002)		0.0000 (0.002)	
HALL			0.296** (0.128)	0.353*** (0.127)			0.212 (0.148)	0.245* (0.148)
SHOP			0.110 (0.069)	0.101 (0.065)			0.123 (0.224)	0.150 (0.313)
LIBRARY			0.299 (0.368)	0.171 (0.356)			0.166 (0.159)	0.313* (0.168)
POST OFFICE			0.266 (0.243)	0.116 (0.251)			0.421** (0.236)	0.516** (0.245)
PUB			0.187*** (0.056)	0.214*** (0.055)			0.365*** (0.137)	0.463*** (0.141)
No. obs.	261	284	261	284	284	284	284	284
R-squared	0.442	0.427	0.493	0.487	0.345	0.220	0.398	0.314

Robust standard errors in brackets - *** p<0.01, ** p<0.05, * p<0.1

† No qualification used as benchmark category.

Table 5: OLS Regression – change between 2000 and 2010 (Dependent Variable: COMCOH)

	Baseline model: Attribute variables only	Saturated Model: Local facilities variables included
Constant	1.209*** (0.145)	1.269*** (0.171)
Δ_POP	-0.0021** (0.001)	-0.0018** (0.001)
Δ_EMPL	0.0017* (0.001)	0.0013 (0.001)
Δ_UNEMPL	-0.0402** (0.017)	-0.0340* (0.016)
$\Delta_INACTIVE$	0.0051** (0.002)	0.0048** (0.003)
Δ_ED_L1	-0.0042 (0.004)	-0.0034 (0.004)
Δ_ED_L2	0.0052 (0.0051)	0.0028 (0.0052)
Δ_ED_L3	-0.0014 (0.006)	-0.0009 (0.005)
Δ_ED_L4	0.0027 (0.002)	0.0031 (0.002)
Δ_HALL		0.176 (0.116)
Δ_SHOP		-0.096 (0.090)
$\Delta_LIBRARY$		0.0842 (0.134)
Δ_POST		0.306 (0.221)
Δ_PUB		0.220*** (0.070)
No. obs.	284	284
R-squared	0.072	0.129

Robust standard errors in brackets - *** p<0.01, ** p<0.05, * p<0.1

Table 6: OLS Regression controlling for parish population size (Dependent Variable: COMCOH)

VARIABLES	2000		2010	
	Population<1000	Population>=1000	Population<1000	Population>=1000
Constant	3.022*** (0.172)	4.819*** (0.618)	3.899*** (0.270)	4.854*** (0.798)
UNEMPLOYMENT	0.0386 (0.028)	0.0331 (0.024)	0.0507** (0.023)	0.0310 (0.021)
SHOP	0.137 (0.094)	0.259* (0.151)	0.255 (0.266)	0.429 (0.467)
HALL	0.557*** (0.142)	-0.154 (0.289)	0.352 (0.225)	-0.0225 (0.247)
LIBRARY	0.966*** (0.174)	-0.0488 (0.533)	0.494** (0.232)	0.0404 (0.241)
POST OFFICE	-0.102 (0.261)	1.443** (0.691)	0.690** (0.324)	-0.154 (0.498)
PUB	0.322*** (0.077)	0.157* (0.083)	0.436*** (0.160)	0.665*** (0.242)
No. obs.	226	58	215	69
R-squared	0.261	0.256	0.218	0.243

Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

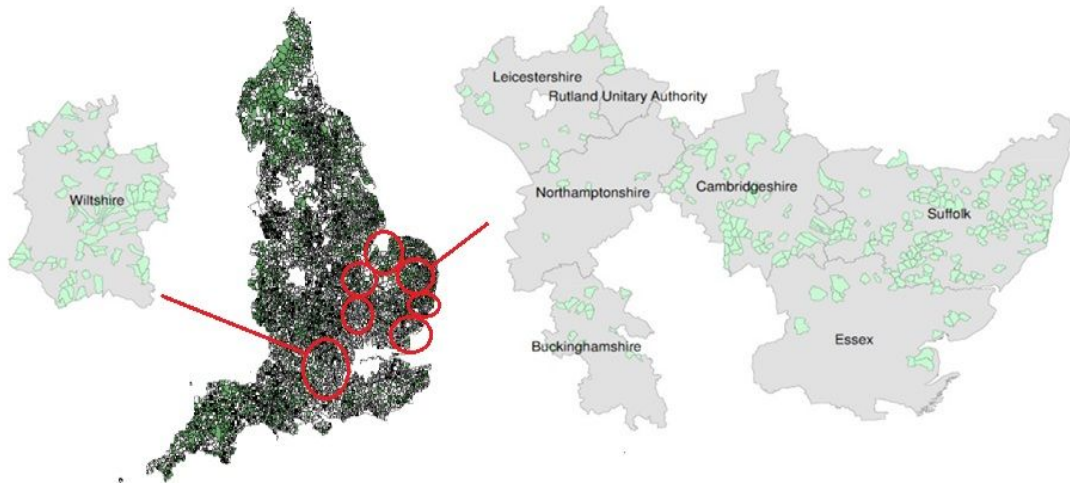
Table 7: OLS Regression controlling for levels of education (Dependent Variable: COMCOH)

VARIABLES	2000		2010	
	Edu<0.2	Edu>=0.2	Edu<0.25	Edu>=0.25
Constant	3.051*** (0.191)	2.829*** (0.248)	3.307*** (0.497)	4.266*** (0.224)
Population	0.0015*** (0.003)	0.0012** (0.001)	0.000 (0.001)	0.001* (0.001)
Unemployment	-0.0243 (0.0155)	0.0616** (0.0276)	0.0229 (0.033)	0.0074 (0.030)
Village Shop	0.326** (0.155)	-0.0053 (0.0583)	0.420 (0.495)	0.142 (0.257)
Community Hall	0.432** (0.179)	0.357* (0.185)	0.295 (0.320)	0.206 (0.163)
Library	0.0850 (0.402)	0.559 (0.645)	0.994** (0.396)	0.0840 (0.180)
Post Office	0.248 (0.340)	-0.209 (0.309)	0.268 (0.543)	0.681*** (0.256)
Pub	0.203*** (0.0698)	0.193** (0.088)	0.655** (0.300)	0.434** (0.173)
No. obs.	188	96	87	197
R-squared	0.483	0.581	0.363	0.349

Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

1
2
3 **Figures**
4

5 **Figure 1: Map of rural parishes identified for this study**
6
7



APPENDIX.

Highest level of qualification	England and Wales
No qualifications	No qualifications
Level 1 qualifications	1-4 O Levels/CSE/GCSEs (any grades), Entry Level, Foundation Diploma, NVQ level 1, Foundation GNVQ, Basic/Essential Skills
Level 2 qualifications	5+ O Level (Passes)/CSEs (Grade 1)/GCSEs (Grades A*-C), School Certificate, 1 A Level/ 2-3 AS Levels/VCEs, Intermediate/Higher Diploma, Welsh Baccalaureate Intermediate Diploma, NVQ level 2, Intermediate GNVQ, City and Guilds Craft, BTEC First/General Diploma, RSA Diploma
Apprenticeships	Apprenticeships
Level 3 qualifications	2+ A Levels/VCEs, 4+ AS Levels, Higher School Certificate, Progression/Advanced Diploma, Welsh Baccalaureate Advanced Diploma, NVQ Level 3; Advanced GNVQ, City and Guilds Advanced Craft, ONC, OND, BTEC National, RSA Advanced Diploma
Level 4 or above qualifications	Degree (for example BA, BSc), Higher Degree (for example MA, PhD, PGCE), NVQ Level 4-5, HNC, HND, RSA Higher Diploma, BTEC Higher level, Foundation degree (NI), Professional qualifications (for example teaching, nursing, accountancy)
Other qualifications	Other vocational/work-related Qualifications, Foreign Qualifications (Not Stated / level unknown)