

# **A question of justice: Are holiday clubs serving the most deprived communities in England?**

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## **Abstract**

In response to the problem of holiday hunger, hundreds of local ‘holiday clubs’ have recently been established across the UK. This research examines the spatial relationship between income, childhood deprivation, ethnicity and holiday clubs across 32,844 Lower Super Output Areas (LSOAs) in England to determine if these clubs are currently operating in an inclusive fashion. Data on the location of holiday clubs comes from a national survey. Binary logistic regression results suggest that holiday clubs are likely to operate in economically disadvantaged areas. At the same time, clubs are not distributed equally by ethnicity. That is, holiday clubs operated by voluntary organizations are more likely to be situated in LSOAs that are disproportionately white and English\British and less likely to be situated in LSOAs that are disproportionately ethnic minority. This finding has important implications for the pursuit of holiday clubs as a policy mechanism for addressing access to food in light of the state’s failure to adequately feed all of the country’s children.

Abstract Word Count = 163

Manuscript Word Count = 8,014

**Key Words:** holiday hunger; food insecurity; food justice; holiday clubs

## **Introduction**

The UK government has implemented a Free School Meals (FSM) program[1] that provides nutritious food to pupils from low-income families.[2] FSM provision acts as a safeguard against food insecurity, especially during the school term (de Sa & Lock 2008; Van Cauwenberghe et al. 2010). Recently, however, academics and policy-makers have become concerned about childhood food insecurity during school holidays, when children do not have access to FSM programs (Machin 2016). The popular label used to describe this circumstance is ‘holiday hunger’. Holiday hunger is “a condition that occurs when a child’s household is, or will, become food insecure during the school holiday” (Graham et al. In press). In response to the problem of holiday hunger, hundreds of local ‘holiday clubs’[3] have recently been established across England. These programs are unlike the FSM program because they are typically unregistered and often operate outside of schools and local authorities.

Few studies examine if holiday clubs meet the needs of children residing in food insecure households (Forsey 2017; Long et al. 2018). Moreover, there are no existing studies that examine if clubs are located in areas where they are needed. Thus, the purpose of this research is to examine the geographic relationship between income, deprivation, ethnicity and holiday clubs across England’s Lower Super Output Areas (or LSOAs) to establish if the clubs are geographically distributed in an inclusive fashion. This attention to the geographic distribution of clubs is critical for public policy because a lack of access to holiday clubs could mean that populations living in socially and/or economically disadvantaged areas are left unaffected by the holiday club movement. Prior to presenting the methods and findings from our analysis of the spatial distribution of holiday clubs, we describe these clubs in greater depth and examine the concept of food justice and its implications for the spatial distribution of these holiday clubs.

## **Background and anatomy of holiday clubs**

A number of UK policies exist to support the nutritional needs of children when they attend school. State funded schools must adhere to a set of school food standards to ensure all pupils are served with nutritious food (Department for Education 2016a; Dimbleby & Vincent 2013). The Department for Education also provides a universal benefit in the form of free school lunch to all 4 to 7 year olds attending state maintained schools. Moreover, low-income families, with net earnings of £7,400 or less and in receipt of welfare support, are eligible for FSM.

Families that rely on FSM provision during the school term face financial pressure during school holidays (Graham & Defeyter 2014; Kellogg's 2015). A recent study of English primary, secondary and special schools finds the mean price of a school lunch meal was £2.04 (Wollny et al. 2015). Thus, on average, parents who rely on FSM provision must find an additional £10.20 per child, per week to feed their child during the school holidays.[4] In response, parents may skip meals and/or resort to buying unhealthy food to ensure their children are fed (Defeyter et al. 2015; Dowler & Lambie-Mumford 2015; Gill & Sharma 2004). This problem is extensive and Kellogg's (2015) reports that 39% (N=458) of teachers say they know pupils that do not get enough to eat during the school holidays.

In the absence of a national policy to address holiday hunger, local authorities, housing associations, schools and the voluntary sector have started operating holiday clubs for low income families. Examples of holiday clubs include Make Lunch, Kitchen Social and Fit and Fed.[5] Holiday clubs primarily focus on feeding children, but may also provide important opportunities for educational enrichment and/or physical activities during the school holidays (APPG on School Food 2015). These additional opportunities are important as low income families often lack the financial resources to access and participate in enrichment activities and

therefore experience learning loss, social isolation and engage in fewer physical activities (Campbell et al. 2015; CPAG in Scotland 2015; Gill & Sharma 2004; Kellogg's 2015; NUT 2017; Rai 2015; Sustain 2015).

In the UK, summer learning loss is particularly salient for low income children who experience significant decreases in spelling ability (Shinwell and Defeyter 2017). Moreover fitness levels of children can decline over the summer holidays, with the biggest increases in sedentary behaviour for those children from socially disadvantaged households (Domone et al. 2016; Brodersen et al. 2005).

Holiday clubs also serve an important supervision function because they provide low income parents with the time they need to maintain employment obligations and other family commitments. A recent survey carried out by Family Childcare Trust illustrates the lack of affordable holiday clubs and shortages in childcare services across some regions of the UK (Cameron et al. 2016). Thirty-nine percent of English teachers in primary and secondary schools in England also stated that they knew parents and carers that were unable to acquire holiday supervision for their children (Diss & Jarvie 2016). Consequently working parents resort to relying on friends or family for informal childcare and/or reduce their working hours when they are unable to find affordable holiday childcare (CPAG in Scotland 2015).

In recognition of the need for additional support for low income families during the school holidays, recent reports by the All-Party Parliamentary Group (APPG) on Hunger recommend that holiday clubs should be expanded across each region of the UK (Forsey & Mason 2015; Forsey 2017). The APPG on Hunger recommends that statutory and financial assistance will come from the central government and local authorities, however it is the task of local communities to address this need and tackle school holiday hunger (Forsey 2017). While

there are a number of reports by the third sector on the different holiday club models, there is little academic research on the geographic location of these clubs to determine if they are likely to be located in areas where they are most needed.

### **Food (in)security and holiday clubs**

Food security is defined by The Food and Agriculture Organisation of the United Nations (FAO) as a condition that is achieved “when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life” (FAO 2015, p.53). Food insecurity, or the lack of food security, is detrimental. In the case of children, food insecurity leads to adverse health outcomes (Alaimo, Olson, Frongillo, et al. 2001), anxiety and stress (Weinreb et al. 2002) as well as poor educational attainment (Alaimo, Olson & Frongillo 2001; Jyoti et al. 2005). Even in the most developed countries equal access to food is a major concern. This is also the case in England where food security is least likely to be realised by those who are the most disadvantaged (Nelson et al. 2007). Recent increases in food prices have intensified this problem. Between 2007 and 2016 food prices increased by 4.1% (Department for Environment Food & Rural Affairs 2016). As a result, households spend a higher proportion of their income on food which impacts low income households the most (Department for Environment Food & Rural Affairs 2016). Especially problematic is the increase in prices for healthy food. A study by Jones et al. (2014) discovered that healthy food items have risen in price faster than less healthy food items. The researchers conclude that as a result, low income households are more likely to purchase less healthy alternatives over time.

Against a backdrop of volatile food prices, a series of welfare reforms have been introduced across all regions of the UK since 2010. A study by Beatty and Fothergill (2014)

illustrates that these reforms affect a wide range of low income and out of work households. In their paper, Beatty and Fothergill map three distinct areas where the welfare reforms have hit the hardest: older industrial areas of England, Scotland and Wales where industry has not been replaced; a number of seaside towns with high levels of worklessness; and a number of London boroughs where poorer residents are concentrated and rents are high. The more deprived local authorities have been hardest hit; the loss of income by residents in the area has a knock on effect by reducing spending in the local area and affecting local employment (Beatty & Fothergill 2014). In addition to welfare reforms, the Local Government Association (2014) argues that there has been a reduction in central government funding of 40% to local governments, over a five-year period from 2011. This reduction in their budgets affects the provision of local community services including youth services, leisure facilities and libraries (Local Government Association 2014). These economic impacts threaten to intensify food insecurity within certain neighbourhoods across the UK.

As noted, holiday clubs are designed to alleviate food insecurity as well as provide enrichment activities during school holidays. This is only possible if the clubs operate inclusively and in those areas where their services are needed. This issue is a matter of ‘food justice,’ which we expand upon below.

### **Food (In)justice and Holiday Clubs**

Scholars have done an excellent job of highlighting the complex nature of feeding programs, such as holiday clubs, during periods of welfare reforms and austerity (Riches 1999; Poppendieck 1998; Lambie-Mumford 2013). Riches (1999) suggests that widespread food insecurity in wealthy advanced countries stems partly from governments’ failure to take a human rights approach to food. From this perspective, the state should provide access to adequate

amounts of nutritious food to all members of the country. When the states fails in its responsibility to feed its citizens, the possibilities for food injustices increase.

In places like the US and the UK, where substantial numbers of people are food insecure despite living in affluent countries, charitable and other types of third sector organisations step in to help feed hungry people when the government fails in this role (Poppendieck 1998; Lambie-Mumford and Jarvis 2012; Lambie-Mumford 2013). While many food insecure people are helped in the short-term by charitable feeding programs, Poppendieck (1998, p. 6) notes, “it works...by making it easier for government to shed its responsibility for the poor, reassuring policy makers and votes alike that no one will starve.” In other words, the increase in feeding programs run by the charitable and third sector serves to relieve some of the responsibility of governments to provide all of its citizens access to adequate, nutritious food.

The majority of the research on charitable and third sector involvement in food insecurity in the UK focuses on the use of food banks. This is not surprising as food banks feed many hungry people in the UK. For example, the faith-based organisation, the Trussell Trust, provided 1,332,952 emergency food parcels to members of the public in a food crisis in the 2017-18 financial year (Trussell Trust 2018). Research has found that in the UK, the location of food banks and their use are positively associated with government welfare cuts, benefits sanctioning and unemployment (Loopstra & Tarasuk 2015). The present study examines whether similar relationships exist with the location of holiday clubs. Holiday clubs are similar to food banks in that they are both downstream responses to food insecurity run by charitable and third sector organisations. While the failure of governments to adequately feed their citizens is surely a food injustice, organisations such as food banks and holiday clubs attempt to return some food justice to food insecure households.

Gottlieb & Joshi (2010, p.6) suggest that food justice is achieved when “the benefits and risks of where, what, and how food is grown and produced, transported and distributed, and accessed and eaten are shared fairly”. This concept of food justice includes the issues that impinge on the production, consumption and distribution of food. Importantly, the food justice movements include attempts to enhance food security for less powerful social groups. For instance, as Wekerle (2004) suggests, some strands of the food justice movement originated within the rather narrow focus on ‘emergency food services,’ but now include a wider framing that calls for state policies and third sector work that emphasize the ideals of social justice. This new framing of food justice is especially relevant when it comes to food security (Sen 1981).

Holiday clubs are part of the larger food justice movement that aims to enhance access to nutritious food among children living in food insecure households. The distribution of these clubs, however, may mirror social inequalities through existing forms of institutional discrimination. In short, the same social forces that produce clusters of food insecurity may also shape the location of responses to the problem. Feagin (1977) describes this condition as indirect institutionalized discrimination. For instance, the lack of financial resources might force people to reside in areas where there are high levels of food insecurity. At the same time the lack of financial resources is one inhibiting factor for the establishment of holiday clubs that help to combat the problem. Thus, children from households that might otherwise benefit from holiday clubs are excluded from participating in them when they live in deprived areas. Feagin (1977) suggests the side effect of this discrimination is often the most harmful to socially disadvantaged groups because it is acceptable within government policy arenas. It is possible that in recent years as the third sector marketplace has transformed and taken over the government’s service sector role, the poorest areas might be left behind when it comes to holiday programs. This is



because the third sector is increasingly competitive and community organizations must use their resources to compete and bid against one another for government and foundation monies to provide outsourced social services (Milbourne 2009; Taylor 2002).

There are conflicting perspectives regarding ethnicity, health and poverty which may be relevant to the distribution of holiday clubs and charitable and third sector responses to food insecurity.

For example, Pickett and Wilkinson (2008) review numerous studies that argue that in communities with a large proportion of ethnic groups, an ethnic 'group density' effect on health exists - this refers to ethnic groups from more disadvantaged backgrounds benefiting from better health outcomes than other disadvantaged groups as a result of the support networks existing within their communities. Therefore, it is possible that these support networks may attenuate the risk of food insecurity among certain ethnic groups.

However despite a possible 'group density' effect, it is evident from the Joseph Rowntree Foundation's analysis of poverty in the UK that Bangladeshi and Pakistani groups have higher rates of poverty and are more likely to experience persistent poverty and material deprivation compared to white ethnic groups in the UK (Baranard et al. 2017). So, whilst it is possible that support networks may exist to help with household food insecurity and other issues like childcare it does not appear that these support networks help to noticeably decrease poverty and deprivation. It is reasonable to question the ability of these networks to meaningfully reduce food insecurity on a regular basis. Although the evidence appears mixed in regards to whether larger amounts of ethnic minorities is helpful or hurtful for levels of food insecurity, the conflicting approaches suggest that level of ethnic minorities in a community may be an important variable in the analysis of the location of holiday clubs. Given the possibility of haphazard citing of third sector holiday clubs, it is possible that holiday clubs could serve different ethnic groups

unequally. Research on the unequal distribution of food insecurity is pervasive. For instance, the accessibility and availability of local shops that sell a range of affordable and healthy food are more limited within disadvantaged than affluent communities. In 1995 the Low Income Project Team of the Nutrition Task Force introduced the term 'food deserts' to describe areas where people are unable to access healthy and affordable food as a result of physical or economic barriers (Wrigley 2002). Lang and Caraher (1998) undertook a study on food purchasing behaviour using data from the Health and Lifestyles Survey. The authors illustrate the complexity of food purchases and suggest that access to food is affected by class, income and gender that often vary by neighbourhood (Lang & Caraher 1998). In the case of voluntary sector food organizations this may also be an issue. A study carried out by Clifford (2012) using data from the National Survey of Third Sector Organizations in England investigated the locations of voluntary sector organizations operating at the neighbourhood level in 2008. Clifford identified a greater prevalence of formal voluntary organizations in less deprived areas than more deprived areas. Despite these general alarming results, the findings from Clifford's study are, nevertheless, complex and illustrate a curved relationship with the most deprived communities of all having a slightly *higher* prevalence of voluntary organizations than those slightly less deprived areas (Clifford 2012). Salamon (1987) and Salamon and Toepler (2015) address this uneven nature of third sector services, suggesting that there are limitations, especially when considering excluded and disadvantaged populations. That is, voluntary organizations rely on local philanthropy and resources which tend to be available in areas of least need; donors focus on specific groups or geographical areas at the expense of others; lack of professionalism within voluntary organizations are unable to address the complex needs and issues (Salamon 1987; Salamon & Toepler 2015). More recently, scholars like Chaney (2002) have warned that the third sector

service model in the UK can disadvantage smaller organizations with fewer social and financial resources as they are in danger of being undermined in the competitive third sector market. Kneafsey and colleagues (2016) argue that as a result of restricted financial resources and funding there exists a piecemeal offering of charity-led food initiatives, leading to the most marginalized communities being excluded from this provision. Teasdale (2010) adds that smaller organizations may be suffering from a 'skills deficit' that harms low income and ethnic communities and the issues they are concerned about the most (see also Chaney & Fevre 2001). Thus, most scholars still agree that participation of the marginalized in the third sector is far from assured (Chaney 2002). These general observations about potential problems associated with the third sector organizations that run holiday clubs lead us to empirically examine whether holiday clubs are located in the most deprived areas of England or rather support the food injustice argument.

### **Data and methods**

The purpose of this research is to examine whether holiday clubs are distributed in those English neighbourhoods where they are the most needed. To approximate neighbourhoods we use the Office of National Statistics (ONS) Lower Layer Super Output Areas (or LSOAs) for England. Each LSOA averages approximately 1,500 residents and 650 households. LSOAs were created with social homogeneity in mind and can be used to approximate neighbourhoods within the UK. There are 32,844 LSOAs within England. Data on holiday clubs come from a self-completing questionnaire that was administered by Qualtrics.[6]

The study adopted a non-probability purposive sampling strategy. This type of sampling strategy was adopted as this was the first research study to undertake a quantitative survey to establish the types of organisations delivering holiday provision and the location of these holiday

clubs. The survey was hosted by Qualtrics and distributed online through the membership base of the All-Party Parliamentary Group (APPG) on School Food and the Association of Public Service Excellence (APSE). The APPG on School Food is comprised of members concerned with matters relating to school food, child hunger and food education and APSE is a network of local government managers and officers from local authorities across the UK. Organisations opt in to these membership bases. An online survey invitation and link was emailed to the members of these organisations. The survey was further distributed within these organisations and their partner agencies. The purpose of using the membership bases of these organisations was to reach the diversity of organisations delivering holiday provision including local authorities, schools, public health, faith groups and third sector organisations. Nevertheless there are disadvantages to using this sampling frame and this method of data collection and some of these difficulties were addressed before the online survey was distributed. First, as the membership base and distribution lists are managed by APSE and APPG on School Food, little was known of whether all these organisation deliver any form of holiday provision. To ensure the correct organisations were targeted one of the initial questions asked on the online survey was *“does your organisation operate a holiday scheme or holiday schemes for school aged children? By holiday scheme, we mean clubs and activities operating during the school holidays”* and if the respondent answered no, they were then taken to the end of the survey. Second, there exists a risk of multiple responses from participants. However to prevent this risk, Qualtrics remembers the participants’ internet address (IP) and prevents a duplicate response from the IP address to complete the survey within a 24 hour period. Third, there is a risk of a lower response rate with online surveys compared to paper surveys (Nulty 2008) however in order to improve the

response rate, reminder emails were sent via the organisations' membership base and their Twitter feed. The online survey was active for three weeks from 29 April to 21 May 2016.

The survey achieved a total of 428 responses from across the UK. The total number of responses for England was 346. After removing organisations that (1) did not provide or plan to provide holiday provisions, (2) charged for their holiday provisions, (3) did not provide a postcode for mapping we were left with a total of 100 holiday clubs. Our strategy for locating these types of holiday clubs was necessary, because, to our knowledge, this is the first attempt at creating a census of holiday provision and no sampling frame exists. While we believe that our census is relatively comprehensive, it is possible that charitable and faith based groups delivering holiday provision may have been missed.

The location of these holiday clubs is represented in Figure 1 where they are mapped by local authorities according to the 2015 Income Deprivation Affecting Children Index (IDACI), one subset of the English Indices of Deprivation 2015 and measures the proportion of all children under the age of 16 living in income deprived families (Department for Housing Communities & Local Government 2015).[7]

**[Figure 1 About Here]**

Figure 1 suggests that clubs across England appear to be situated in those local authorities where there are the highest levels of childhood deprivation. It appears that areas in major cities such as London, Birmingham, Liverpool and Newcastle upon Tyne have access to several holiday clubs. There are also a few areas where deprivation is high, but there are no clubs. For instance, there are few clubs in coastal communities and land-locked industrial areas that have been hard hit in an era of deindustrialization within England.

While Figure 1 appears to suggest that holiday clubs are in areas where there are high levels of childhood deprivation, more analysis is needed at the community level of analysis since there is considerable demographic variation within local authorities. To undertake such an analysis, we use a series of binary logistic regression equations to estimate the presence or absence of a club within England LSOAs.[8] All analyses are carried out in Stata (ver. 13).

### ***Dependent variable***

The dependent variable was created by mapping holiday clubs across England's LSOAs using ArcGIS (ver. 1.4). Areas where clubs operate are coded '1', while areas where clubs do not operate are coded '0'.

### ***Independent variables***

The independent variables in this analysis were also collected for LSOAs as described below. To estimate economic disadvantage, we used three variables at the LSOA level. First, we use household income data as a measure of economic disadvantage. Lower average incomes within LSOAs should reflect more disadvantage. Thus, as average incomes decrease, the odds of a holiday club in a LSOAs should increase if these clubs are in areas of deprivation. Average income was obtained from UK Data Service's Experian Demographic Dataset (Experian Limited 2013). This dataset was created using 2011 Census data and household income represents the average household income (*Average Income*) within LSOAs as estimated by Experian. Average income ranges from £9,168 in the poorest areas to £128,508 in the most affluent areas. The average income across all LSOAs in 2011 was £34,264 ( $s = £12,129$ ). Second, we capture economic disadvantage using the percentage of households within LSOAs with dependent children and an unemployed single parent (*% of Single Parent Unemployed Households*) This variable was collected in the 2011 census and can be obtained from the Office of National

Statistics NOMIS database (<https://www.nomisweb.co.uk>). The percentage of these disadvantaged households ranged from 0% to 26% across LSOAs ( $\bar{x}=3.04\%$ ,  $s = 2.07$ ). This variable should be positively related to holiday clubs if the clubs are located in areas of greatest need. That is, as disadvantage increases, the odds of a holiday club should increase. Third, we measure economic disadvantage impacting children using the 2015 The Income Deprivation Affecting Children Index ([IDAC] *Deprivation Affecting Children*). This index is compiled by the Department of Communities and Local Government (2015) and measures the proportion of children in 2015 who are aged 0 to 15 and living in income deprived families. The index ranges from 0 to 0.92 across England LSOAs ( $\bar{x} = 0.18$ ,  $s = 0.13$ ). As the proportion of children in deprivation increases, the odds of a holiday club operating in that LSOA should increase if clubs are more likely to be located in areas of need.

To measure the ethnic inclusiveness of holiday clubs we create a variable measuring the percentage of the minority ethnic population within England's LSOAs (*% Minority Ethnic Population*). This variable was collected in the 2011 census and can be obtained from the Office of National Statistics NOMIS database (<https://www.nomisweb.co.uk>). The 2011 census classifies people according to their own perceived ethnic group and cultural background (Question 16, 'What is your ethnic group') and includes the category "White English/Welsh/Scottish/Northern Irish/British." We therefore measure the minority ethnic population as those residents who do not self-report as "White English/Welsh/Scottish/Northern Irish/British." The mean percentage of this population is 13.8 ( $s=18.7$ ). If holiday clubs are located in areas of greatest need, we expect that an increase in the percentage of minority ethnic residents in an LSOA would correspond to an increase the odds of a holiday club operating in that LSOA (Szczepura 2005).

### ***Control variables***

We control for four variables that might also predict the presence or absence of holiday clubs. First, we control for *population* that simply measures the number of people in an LSOA in 2015 ( $\bar{x}$  = 1,627;  $s$  = 3,152). Second, we control for *population density* which measures the number of people per square kilometre in 2015 ( $\bar{x}$  = 42.6;  $s$  = 42.3). Third, we control for the number of civil society organizations within each LSOAs in 2015 (*Civil Society Organizations*;  $\bar{x}$  = 2,459;  $s$  = 1,671). This variable was obtained from UK Data Service as compiled by the Third Sector Research Centre research data collection (Alcock & Mohan 2013). Finally, we control for the annual per capita amount of income, employment and disabled related benefits per capita paid out by the LSOA's local authority in FY2014-2015 (*Per capita benefit expenditures*;  $\bar{x}$  = £2,378;  $s$  = £334). These data were obtained from the UK's Department of Work and Pensions (2015).

### **Analysis**

We begin our analysis by examining LSOAs with and without a holiday club. Table 1 presents t-tests for the difference in means for the variables *% Minority Ethnic Population*, *Average Income*, *Deprivation Affecting Children* and *% of Single Parent Unemployed Households*. These comparisons are broken down by the type of club operating so that clubs operated by the schools and local authority can be compared to clubs operated by the third sector such as churches and community groups. Of the holiday clubs in our data, 60% were operated by third sector organisations, 32% were operated by local authorities, and the remaining 8% were operated by other means.

### **[Table 1 About Here]**

As Table 1 suggests, holiday clubs are most likely to be located in deprived LSOAs. For instance, holiday clubs appear to be located in LSOAs where there are a high percentage of



minority ethnic residents (e.g., 24.99% vs. 13.78%,  $p<0.01$ ), lower average income (£25,603 vs. £34,289,  $p<0.01$ ), higher than average childhood income deprivation (0.327 vs. 0.185,  $p<0.001$ ) and single parent households that are unemployed (6.08 vs. 3.04,  $p<0.010$ ). Together these data suggest that clubs are situated in LSOAs where they are most economically needed. We find similar evidence for clubs that are run by schools and local authorities (Table 1). That is, local authority and school run holiday clubs are more likely to be in poor and minority ethnic neighbourhoods. Finally, we also discover that third sector clubs are also situated in neighbourhoods that tend to have lower average income, higher childhood deprivation and higher percentages of single parent households. Results in Table 1 do not suggest that clubs run by third sector organisations are any more or less likely to be located in ethnic minority LSOAs (12.98% vs. 13.78%; n.s.). Overall, then, the results in Table 1 are mostly encouraging as they appear to promote the ideals of food justice when it comes to the distribution of holiday clubs across LSOAs.

The results in Table 1 are interesting, but provide a limited picture of holiday clubs in England. They leave open the potential for changing relationships inherent in multivariate analysis. To examine whether holiday clubs are located in areas of need in more detail we simultaneously examine the relationship between measures of deprivation[9], inclusiveness and controls in Table 2.

**[Table 2 About Here]**

Table 2 indicates that neither average income nor single parent unemployed households with dependent children have statistically significant relationships with any of the holiday club dependent variables. However, the ICAC Index, arguably the most valid indicator of childhood deprivation in the models, is related to the location of holiday clubs within neighbourhoods and

each increase in the index (e.g., moving from 0 to 1.00) increases the odds of a holiday club in a neighbourhood by a factor of 69.61 ( $p \leq 0.001$ ) for all clubs, a factor of 770.4 ( $p \leq 0.01$ ) for clubs run by local authorities or schools, and a factor of 64.31 ( $p \leq 0.05$ ) for clubs run by community and church groups. Taken together these findings suggest that, in general, clubs are in those areas of greatest need and promote, rather than inhibit, social justice.

One of the more interesting findings in Table 2 surrounds the relationship between ethnicity and holiday clubs. Specifically, for the clubs in our analysis we find that these clubs tend to be more inclusive of ethnic minority residents in the case of schools and local authorities. For instance, moving from a neighbourhood where all residents are members of the ethnic majority to a neighbourhood where all residents are members of an ethnic minority increases the odds that a local authority or a school will run a club in that neighbourhood by a factor of 162.5 ( $p \leq 0.001$ ). However, the opposite is true for community groups and churches. In this case, moving from a neighbourhood where all residents are members of the ethnic majority to a neighbourhood where all residents are members of an ethnic minority decreases the odds that a third sector organisation will run a club in that neighbourhood by a factor of 0.0712 ( $p \leq 0.05$ ). This relationship between neighbourhood ethnicity and holiday clubs run by the third sector stand in stark contrast to the idea of food justice. That is, while governments and schools appear to be inclusive by focusing their efforts on minority ethnic neighbourhoods, third sector organizations run by churches and community groups may be less inclusive and focus their efforts on neighbourhoods where residents define themselves as 'white' and 'English, Welsh, Scottish, Northern Irish and British.' This situation will need to be closely monitored in the future if the strategy for attenuating holiday hunger in England will rely significantly on a third sector solution.

## **Discussion and conclusion**

In this study, we draw upon a census of holiday clubs and LSOA data to determine whether holiday clubs in England operate inclusively. Results suggest that the IDAC Index was positively related to the presence of all types of holiday clubs, suggesting these clubs are located in areas of greatest economic need for children. This finding is encouraging as it suggests that holiday clubs are a resource for some low-income children during the holidays when FSM are not available. Results for ethnicity, however, are mixed. As the percentage of ethnic minority residents in a LSOA increased, so too did the presence of local authority/school holiday clubs as might be expected. However, as the percentage of ethnic minority LSOA residents increased, the presence of a church/community holiday club significantly decreased. This finding suggests that food injustice may be an issue for third sector organisations because they are less inclusive when it comes to providing provision in ethnic minority neighbourhoods. This result is not entirely inconsistent with previous research that has found that there is little use and/or provision of food aid in some minority communities (Power et al. 2017), however we should be cautious about drawing any conclusions from the results of case studies. The level of poverty is higher in minority ethnic communities, compared with other non-minority communities (Baranard et al. 2017) indicating a need for holiday clubs in minority ethnic communities. It is possible, however, that more informal types of food aid are occurring in minority ethnic communities, locations where third sector organisations do not have enough resources to assist. Higher levels of informal food aid in minority ethnic communities would be consistent with an ethnicity group-density effect (Pickett and Wilkinson 2008).

There are three important caveats to this study. First, the sample of holiday clubs was non-probability-based. This approach was unavoidable as there is currently no known sampling

frame of holiday clubs in England and the UK. Holiday clubs are a relatively new and rapidly growing phenomenon and accurate data on the number and types of these organizations does not yet exist. To our knowledge, ours is the first study that has attempted a census of holiday clubs throughout England. However, despite our best attempts, we have inevitably missed some holiday clubs in our census. This may impact our results. For instance, we may have disproportionately excluded informal church/community holiday clubs in neighbourhoods with higher proportions of ethnic minority residents. These are clubs that are the most likely to be unknown to the government and therefore would not have shown up in our sample. We therefore emphasise that future research needs to be consider how to measure informal food aid and holiday provision that is available through church and community groups.

Second, it is important to note that in the absence of a national measure of food insecurity in the UK it is not possible to ascertain trends of seasonal food insecurity, such as an increase in food insecurity in neighbourhoods where holiday clubs do not exist or if foodbanks fill this gap. Future research could focus on constructing and examining such measures while looking at the role of food banks in attenuating holiday hunger.

Third, simply mapping out holiday provision misses important social processes that may allow food injustice to remain invisible, even when the distribution of clubs looks equitable. For instance, Agyeman and Mcintee (2014, p.215) suggest that focusing on local level solutions may result in a situation where “the state now defines what is or is not an area of inadequate food access”. Thus, we caution readers that the spatial analysis we use can only provide part of the story of food injustice because significant amounts of holiday hunger can remain ‘hidden’ when the problem is reduced only to comparisons across LSOAs. More specifically, conditions that cause these injustices may still exist and it is certainly possible that even while holiday clubs are

distributed in a 'socially just' fashion, the overall level of holiday hunger is intensifying for all children in England. Therefore, we caution that policies that simply seek equity in distribution and ignore other issues of access are misguided.

The research represents the first attempt at understanding the geographic distribution of holiday clubs in England. These findings extend concerns about the rise in foodbanks as a downstream response to addressing hunger in the community (Riches 2002; Lambie-Mumford 2013) and again highlight the debate around the role of the charitable and third sector supporting the most vulnerable in society in place of the state (see Poppendieck 1998; Lambie-Mumford and Dowler 2015; Lambie-Mumford and Jarvis 2012). Thus, as holiday clubs continue to become more prevalent as food insecurity increases, future research will need to unpack how communities are addressing holiday hunger and providing food justice to all residents of England.

## Footnotes

[1] The UK government is currently proposing measures that would reduce access to Free School Meals or many low-income households (see Royston 2018).

[2] In England in 2016 a total of 1.1 million children were eligible for and claimed free school meals (Department for Education 2016b).

[3] The term ‘holiday club’ can mean numerous things. It generally refers to some type of holiday provision for children, which can be paid or free. The clubs often offer one or a combination of the following: breakfast, lunch, physical activity, and childcare, among others. In the case of the present study, we are focusing on clubs that are offered in the summer months, which are free to attend and provide a free meal. We discuss this in more detail in the Data & methods section.

[4] UK pupils are on holiday for approximately 14 weeks annually. Therefore household budgets for children receiving FSM need an average of £142.80 per child to maintain the same level of food provision as when attending school.

[5] Further details of these holiday clubs can be found at <https://www.makelunch.org.uk/>;  
<http://www.mayorsfundforlondon.org.uk/programme/kitchen-social/>;  
<http://www.streetgames.org/fandf/fit-and-fed>.

[6] University of Northumbria’s Faculty of Health and Life Sciences Ethics Board approved this research.

[7] This is from the IDAC Index. This includes people out of work and in receipt of benefits, those that are in work but who have low earnings, and are in receipt of Child Tax Credit. In the ten most deprived local authorities around a third or more of all children lived in income deprived families (Department for Housing Communities & Local Government 2015).

[8] We also estimated the models using rare events logistic regression as there are nearly thirty-one thousand neighbourhoods without a club and only 98 neighbourhoods with one or more clubs (King & Zeng 2001). Both the traditional binary logistic and rare events logistic regression models produced very similar results, so we report the traditional results for ease of interpretation.

[9] In models not reported here, we estimated equations for each dependent variable where we included only one of the three deprivation variables (i.e. income, % of Single Parent Unemployed Households, and IDACI) at a time to see if they produced any meaningfully different results than the full models reported in Table 2. It is possible, since these three variables measure similar concepts then multicollinearity could affect the estimates. The main findings in the models regarding child deprivation and ethnicity are the same in all of the models. The main differences are that median income and % of Single Parent Unemployed Households significantly predict holiday clubs when they are in the model separately, however they lose significance in the full models.

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