Evidence of rising food insecurity in UK and EU: potential drivers and the role of social protection

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Britain, 2014. We’re the sixth largest economy in the world. We have more millionaires than ever before...

So why have we handed out ONE MILLION food parcels?

And new figures reveal 330,000 went to hungry children... Shock report pages 4&5
Numbers receiving emergency food parcels from the Trussell Trust

Changes to Welfare Support since 2010

- ~25% reduction in local authority budgets
- Reduced entitlements
- Benefit cap
- Tougher conditionality & sanctioning
Response from Government

“...no robust evidence linking food bank usage to welfare reform“
- Esther McVey, Minister of State for Employment,
Letter to Scottish Government, June 2014
‘Foodbanks: Every town should have one’

Trussell Trust Foodbank Social Franchise Model

**START A FOODBANK**

Without people like you there wouldn't be a network of foodbanks supporting people in crisis across the UK.

All Trussell Trust foodbanks are launched in partnership with local churches and communities, because these are best placed to meet local needs.

We'll provide you with all the tools, training and know-how to start a foodbank, so that people in crisis in your town don't have to go hungry.

**What we offer**

When you join The Trussell Trust Foodbank Network, we will provide:

- Full training
- An operating manual
- Ongoing support from national staff team and a regional development officer
- Template website tailored to your foodbank with your own content management system
- Branding artwork (including leaflets, banners, etc.)
- PR advice and template press releases as well as opportunities to talk to national press
- An online forum
- An online stock control system
- Annual audits and quality assurance process
- Corporate relationships – discounts and services (e.g. many Trussell Trust foodbanks are able to hold supermarket collections in local Tesco stores and receive a cash ‘top-up’ on what is donated)
- National and regional conferences

£1500 start-up, £360 annually
Supply vs Demand?

"Food from a food bank—the supply—is a free good, and by definition there is an almost infinite demand for a free good."

Gaps

• Lack of systematic evaluation of factors associated with food banks opening across UK.
• Need to understand factors associated with food bank usage, accounting for changing provision of emergency food aid.
Research questions

• What explains the rising number of Trussell Trust food banks opening in the UK after 2009 to 2013?

• After accounting for supply of food banks, what explains higher food parcel distribution?
Sample of local authorities

- 380 local authorities from England, Scotland, Wales
  - 5 excluded due to small size
  - 375 local authorities
    - 29 with Foodbanks
    - 346 local authorities without Foodbanks in 2009
      - 251 with Foodbanks in 2013
      - 95 without Foodbanks in 2013
Data

*Trussell Trust Foodbank data, 2009-2013*
- Number of food banks operating each year
- Number of people fed by food parcels in each year

*Official government statistics for local authorities, 2009-2013*
- Economic production: Gross Value Added (ONS)
- Unemployment rate (Nomis)
- Spending on local services provision, welfare support, and community programmes (DCLG)
- Benefit spending on unemployment insurance, disability benefits, low income etc. (DWP)
- Sanctions applied to unemployment benefit claimants (DWP)
- Proportion of population identifying as Christian (Census 2011)
Analysis 1

• First food bank opening in local authorities:
  – Logistic regression model:
    • Local authority-years excluded from analysis after censoring.
    • N=1071 local-authority years included.
    • Clustered standard errors by local authority
  – Predictor variables:
    • Socioeconomic conditions in two years prior
    • Percent reductions in spending in two years prior
Expansion of Trussell Trust food banks across local authorities in the UK

2009
Trussell Trust food banks in 29 local authorities

2013
Trussell Trust food banks in 251 local authorities

(Loopstra, Reeves et al., *BMJ*, 2015.)
Table: Factors associated with first food bank opening in local authorities.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Odds Ratio for Food Bank Opening</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Each 1 percentage point higher unemployment rate</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>One year prior</td>
<td>1.08**</td>
</tr>
<tr>
<td>Each 1% cut in local authority welfare spending in the prior year</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>One year prior</td>
<td>1.07***</td>
</tr>
<tr>
<td></td>
<td>Two years prior</td>
<td>1.06**</td>
</tr>
</tbody>
</table>

Notes: Model also includes % of population identifying as Christian, central cut in welfare benefit spending, and Gross Value Added.
95% confidence intervals based on standard errors clustered by local authority to reflect non-independence of sample units. Local authorities were censored for years after first food bank initiated.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

(Loopstra, Reeves et al., BMJ, 2015.)
**Probabilities of food bank opening given spending cut in previous year.**

Source: DCLG
Analysis 2

• Food parcel distribution:
  – Linear regression model
    • N=575 local authority-years included where food banks were operating over 2010-2013.
    • Clustered standard errors by local authority
  – Predictor variables:
    • Socioeconomic conditions and spending reductions in contemporaneous year
  – Include measures of “supply-side”
    • How long and how many food banks operating
Table: Factors associated with food parcel distribution, 2010-2013, 251 local authorities with food banks and 575 local authority-years.

<table>
<thead>
<tr>
<th>Socio-economic factors</th>
<th>Percentage point change in food bank use (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Each 1 percentage point higher rate of sanctions per claimant</td>
<td>0.09* (0.01 to 0.17)</td>
</tr>
<tr>
<td>Each 1 percentage point higher unemployment rate</td>
<td>0.06** (0.02 to 0.09)</td>
</tr>
<tr>
<td>Each 1 percent cut in central government welfare spending</td>
<td>0.16*** (0.10 to 0.22)</td>
</tr>
</tbody>
</table>

Notes: Model also adjusted for number of food banks operating, years foodbanks operating, local authority spending cut, Gross Value Added, and % of population identifying as Christian. 95% confidence intervals based on standard errors clustered by local authority to reflect non-independence of sample units.  
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

(Loopstra, Reeves et al., *BMJ*, 2015.)
Summary

• The expansion of food banks across the UK associated with socioeconomic conditions and local spending cuts in local authorities.

• Higher rates of food bank use where more people unemployed, more benefit claimants sanctioned, and deeper cuts to benefit spending.

• Together, suggest rising problem of insecure food access in UK population.
“We have looked at this issue extensively and we agree with the conclusion reached by the All Party Parliamentary Inquiry into Hunger, that the reasons for food bank use are complex and overlapping. There is no robust evidence that directly links sanctions and Food Bank use.”

Priti Patel
Former Minister of State for Employment, 2015
CLOSER EXAMINATION OF SANCTIONING
Increasing Conditionality and Tougher Sanctioning Under Coalition Government

• January – August 2011: Introduction of “Back to Work” schemes
  – Mandatory and non-mandatory work and training requirements
• New sanction regime, October 2012
  – Longer duration and faster implementation
  – Minimum sanction period introduced (4 weeks), longest up to three years
• Emphasis on conditionality by current government
  – Roll-out of “Claimant Commitment” in 2013
• Sanctioning targets?
Sanctions applied to benefit claimants
Analyses: quarterly rates of food bank usage

1. Local authority Fixed-effects

\[ Fed_{it} = \beta_0 + \beta_1 \text{Sanctions}_{it} + \beta_2 \text{Claimants}_{it} + \beta_3 \text{Season} + \beta_4 \text{First} + \beta_5 \text{Distribution}_{it} + \beta_6 \text{Hours}_{it} + \mu_i + \epsilon_{it} \]  

(1)

2. First difference disaggregating increase and decrease in sanctions
Rates of food bank usage higher where more sanctions applied

<table>
<thead>
<tr>
<th>Covariates</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 additional sanctions per 100,000 adults</td>
<td>6.14**</td>
<td>6.35**</td>
<td>3.36**</td>
</tr>
<tr>
<td></td>
<td>[0.87]</td>
<td>[0.87]</td>
<td>[0.84]</td>
</tr>
<tr>
<td>JSA Claimants</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Distribution sites</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Hours open</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Linear and quadratic trends</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Local-authority quarters</td>
<td>3041</td>
<td>3041</td>
<td>3041</td>
</tr>
</tbody>
</table>

Robust standard errors in brackets. Models include dummy variable for season, dummy variable for first quarter a food bank operated, and local authority fixed effects. Constant not shown. * p<0.05, ** p<0.01; *** p<0.001
Food bank usage rises and falls with the number of sanctions applied each quarter.

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<tr>
<td>10 additional sanctions per 100,000 adults</td>
<td>5.20**</td>
<td>[1.12]</td>
</tr>
<tr>
<td>10 fewer sanctions per 100,000 adults</td>
<td></td>
<td>-1.79** [0.73]</td>
</tr>
<tr>
<td>JSA Claimants</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
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<td>Local-authority quarters</td>
<td>2918</td>
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Robust standard errors in brackets. Models include dummy variable for season, dummy variable for first quarter a food bank operated, and local authority fixed effects. Constant not shown. * p<0.05, ** p<0.01; *** p<0.001
Analyses: evidence we are not seeing full impact of sanctions?

3. Does distribution moderate sanctions-fed association?

\[
\text{Fed}_{it} = \beta_0 + \beta_1 \text{Sanctions}_{it} + \beta_2 \text{Claimants}_{it} + \beta_3 \text{Season} + \beta_4 \text{First} + \beta_5 \text{Distribution}_{it} + \beta_6 \text{Hours}_{it} + \beta_7 \text{Sanctions}_{it} \times \text{Distribution}_{it} + \beta_8 \text{Sanctions}_{it} \times \text{Hours}_{it} \mu_i + \epsilon_{it}
\]
The effect of sanctions on underlying problem of food insecurity only “visible” where Trussell Trust food banks operate.
Summary

• For 10 sanctions applied, about 5 more instances of adults fed by Trussell Trust food banks.
  – Strong dynamic link suggests sanctions lead to a significant number of people having to turn to food banks.
  – Decline in number of sanctions not as strong: longer sanction penalties? cycle of long-term hardship?

• The full impact of sanctioning on the inability of people to afford and access food likely hidden where few food banks operate.

• Need for monitoring of household food insecurity in the population and potential limits of a charitable food response to hunger in the population.
WHY IS SOCIAL PROTECTION SO IMPORTANT, ESPECIALLY AT TIMES OF ECONOMIC DOWNTURN?
Insight from EuroStat: Rising inability to afford food in EU

- 2005-2010: food hardship decreasing each year by 0.51 percentage points.
- Estimated excess in food hardship since 2009: 2.71% of EU-27 population, 13.5 million people.

Source: Eurostat. Report of inability to afford meat, chicken, fish, or vegetarian equivalent every other day.
Percentage point change in food hardship 2009 to 2012
Research Questions

What explains within-country changes in food hardship?

– Hypothesis 1:
  • Unemployment and declining wages increase food insecurity.

– Hypothesis 2:
  • Level of social protection spending will buffer macroeconomic drivers.

Social Protection across Europe

• Classified according to 8 functions:
  – **sickness / healthcare** — including paid sick leave, medical care and the provision of pharmaceutical products;
  – **disability** — including disability pensions and the provision of goods and services (other than medical care) to the disabled;
  – **old age** — including old age pensions and the provision of goods and services (other than medical care) to the elderly;
  – **family / children** — including support (except healthcare) in connection with the costs of pregnancy, childbirth, childbearing and caring for other family members;
  – **unemployment** — including vocational training financed by public agencies;
  – **housing** — including interventions by public authorities to help households meet the cost of housing;
  – **social exclusion** not elsewhere classified — including income support, rehabilitation of alcohol and drug abusers and other miscellaneous benefits.
Data & Analysis

• Compiled longitudinal cross-country database across EU-27 countries; complete panel data for 21 countries, 2005 to 2012
  – GDP, unemployment (Eurostat)
  – Average annual wages (OECD)
  – Food hardship: report of inability to afford to eat meat (or vegetarian equivalent) every other day. (Eurostat)

\[
\Delta \text{Food hardship}_{it} = \beta_0 + \beta_1 \Delta \text{GDP}_{it} + \beta_2 \Delta \text{Unemployment}_{it} + \beta_3 \Delta \text{Wages}_{it} + \text{Year} + \epsilon_{it}
\]

• Interaction with level of social protection spending
Rising unemployment and falling wages linked to rising food hardship.

<table>
<thead>
<tr>
<th>Percentage point change in food insecurity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per $100 rise in GDP per capita</td>
</tr>
<tr>
<td>Per 1 percentage point rise in unemployment</td>
</tr>
<tr>
<td>Per $1000 increase in average annual wages</td>
</tr>
</tbody>
</table>

Country-years 166

\( R^2 \) 0.281

* \( p < 0.05 \), ** \( p < 0.01 \)

Notes: All models adjust for a linear time trend. Robust standard errors are reported in parentheses.
Figure: Predicted change in food hardship by change in unemployment rate and level of social protection spending.

Notes: All currency in constant international dollars adjusted for purchasing power parity.
Figure: Predicted change in food hardship for a $1000 decrease in annual average wages and level of social protection spending.

Notes: All currency in constant international dollars adjusted for purchasing power parity.
CHALLENGES AND OPPORTUNITIES IN UK/EU
Government dismissal of evidence

House of Commons, November 2016:
To ask the Secretary of State for Work and Pensions, if he will make an assessment of the implications for his Department's policies of the conclusions of sociology working paper 2016-03, published by the University of Oxford on 27 October 2016, on the impact of benefit sanctioning on food insecurity:

“The report the honourable member cites does not provide evidence of a causal link between sanctions rates and the use of food banks.”
Reliance on country-level food bank data: insufficient to understand changing underlying need.

(Loopstra et al. forthcoming)
Reliance on food bank data: underestimating need.

* Food insecurity estimate from Gallup World Poll sample in UK. Validated measure of food insecurity.
Government resistance to taking a closer look

Asked about measurement of household food insecurity:

“We do not intend to measure household food insecurity because there is no single definition of food insecurity.... There are multiple indicators such as quality, variety and desirability of diet as well as total intake, not all of which are measured consistently. It is therefore very difficult and potentially misleading to develop a single classification of food insecurity.”
Conclusions

• Media attention has brought question of hunger to forefront of political debate in UK
• Yet, danger that food bank usage data will continue to be used as barometer of hunger in absence of monitoring; and that attention will focus on strengthening food bank networks.
• Effectiveness and reach of charitable food assistance yet to be evaluated in UK.
• Early view from EuroStat data and FAO data suggest food insecurity highly prevalent, yet need for uptake of food insecurity measurement on national surveys to better understand causes and consequences.
THANK YOU

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