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Atlas of Deprivation in Wales

Dr Robert Berry

countryside and community research institute

Project Title:

Atlas of Deprivation in Wales

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| **Finish Date** xx Month xxxx |  | **Research Team** Robert Berry |
| **Duration** Xxxx |  | **Date of Report** xx Month xxxx |

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## Executive Summary

#### Subtitle (Heading 4)

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## 1. Introduction

### 1.1 Why map deprivation?

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### 1.2 The Welsh Index of Multiple Deprivation

As above, People who live in deprived areas may not be deprived and those living in areas with relatively low levsl of deprivation many be deprived. Low depriuavtion not the same as being affluent.

## 2. Methodology

### Methoody written for Guisers to replicate. Those not interested in technical dateails can skip straight to maps

### 2.1 Data acquisition and pre-processing

<http://www.statsmapsnpix.com/2016/02/more-automated-mapping-in-qgis-using.html>

Data

* WIMD shapefiles from Lle
* LSOA to gfoegpahy (UA) lookup file from StatsWales

Methods notes

* Download WIMD 2019 shapefiles from Lle Geoportal - <http://lle.gov.wales/catalogue/item/WelshIndexOfMultipleDeprivationWIMD2019/?lang=en>. These show polygon areas for LSOA plus the following attributes:
* In QGIS first – LSOAs dissolved to create a LOCAL Authority layer
* In R:
  + Load WIMD shapefiles
  + Load WIMD geography lookup file
  + Merge WIMD and LSOA to LA lookup to add LA attribute to WIMD shapefiles – do this in a loop for multiple shapefiles
  + Placename processing fto create English language-only column – see R code.
  + Remove accents from string
* Join LSAO – LA lookup to shapefile – create separate file then dissivle for LA boundaries. **Note – will; need to do a spatial jopin to WIND2019 overlal data from LLE TO GET NAMES !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!**

In QQGIS

* Font is Raleway - link
* Dissolve LSOAs in to local authorities
* Style from ColourBrewer2.0 - <https://colorbrewer2.org/?type=diverging&scheme=Spectral&n=10>
* Manually edit geom for better fit – Carmarthenshire, Mons, Cardiff – other?
* Rule based rendering
  + Styles
  + Interects for labels.
* Sea/England masks – coastline - <https://www.youtube.com/watch?v=vgHsgybLexg>
* Inset map – NUTS generalised from ONS - <http://geoportal.statistics.gov.uk/datasets/nuts-level-1-january-2018-boundaries?layer=4>
* Roads – OS Openroads
* Edit minor placenames where cross border
* Save and organise all styles!

### 2.2 Mapping the data

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### 2.3 Report Structure

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Figure 1

Figure 2

## 2. All-Wales Maps

## 3. Local Authority Maps