Geographical Information Systems

Assignment 2 – Census Data

DT228

BSc in Computer Science

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The map used for the assignment is divided into 29 counties and five Cities representing the local authority areas. There are 26 administrative counties outside Dublin and 4 Cities, Cork, Limerick, Waterford and Galway. Dublin is divided into 4 local authority areas, Dublin City, Fingal, South Dublin and Dún Laoghaire-Rathdown.
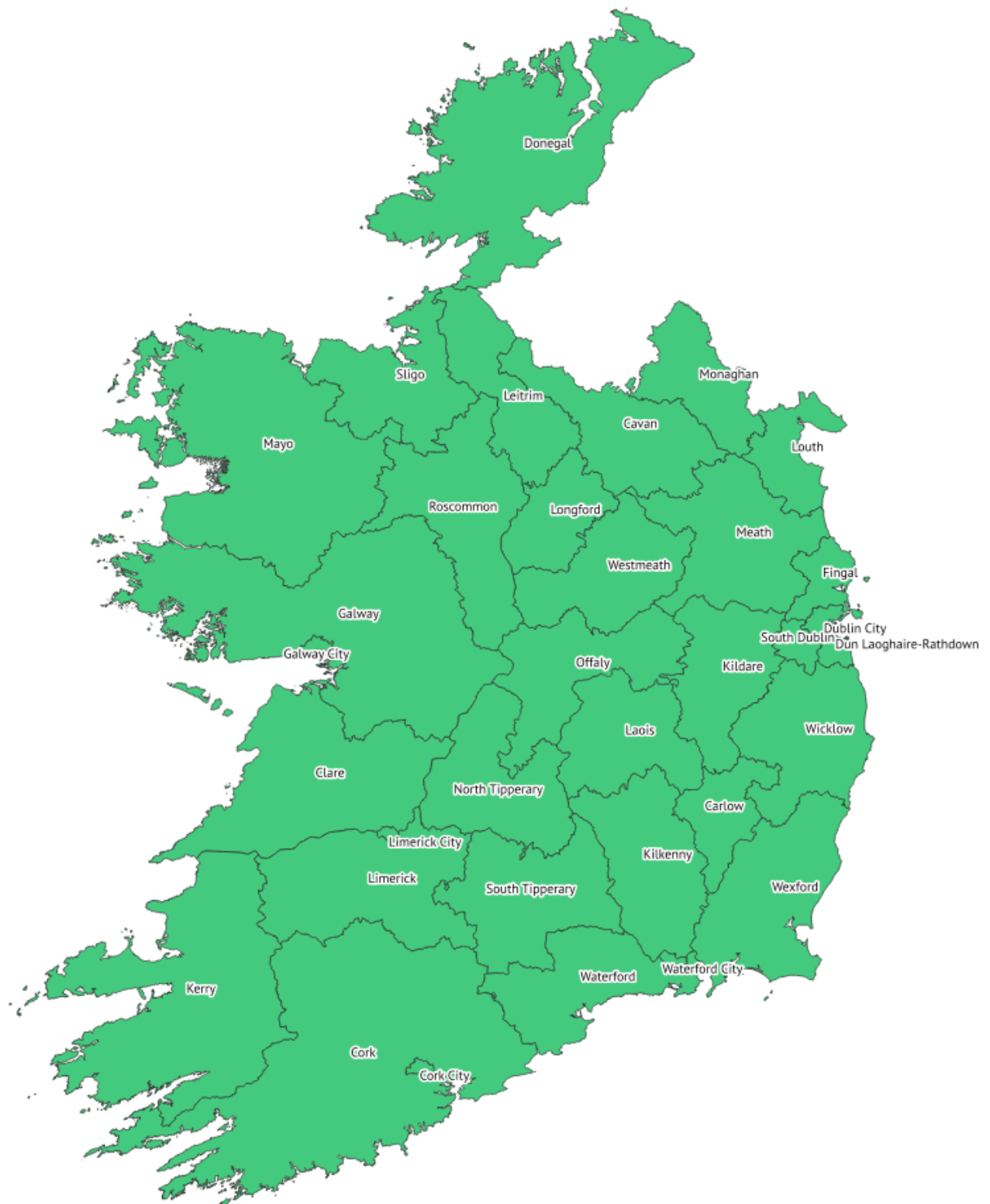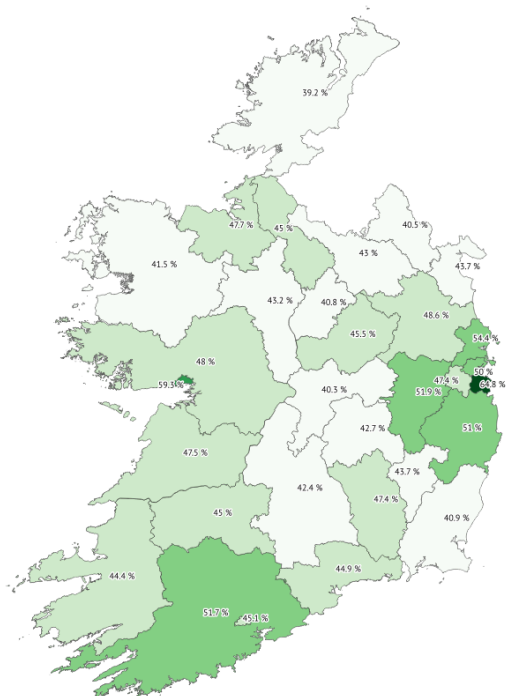
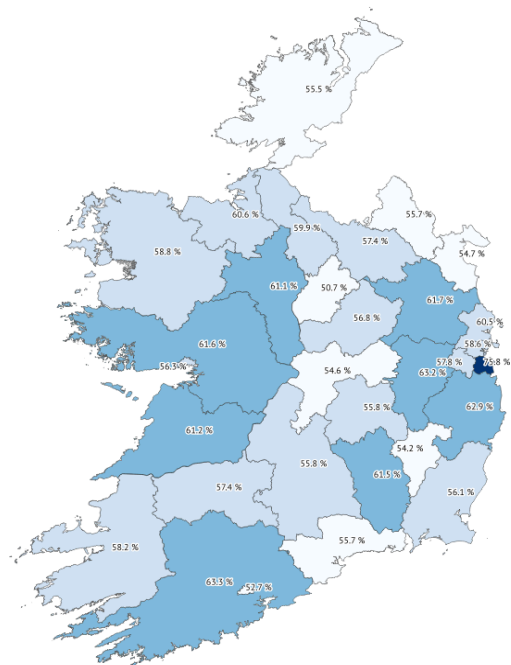# Educational achievements vs. employment prospects
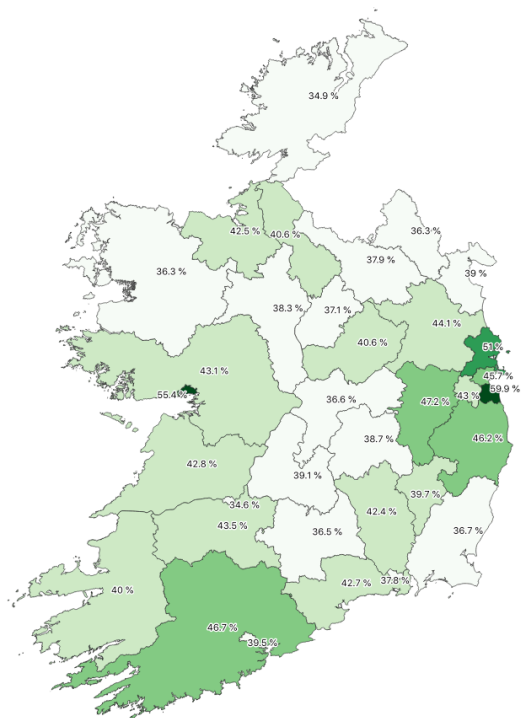
Third level holders 2011
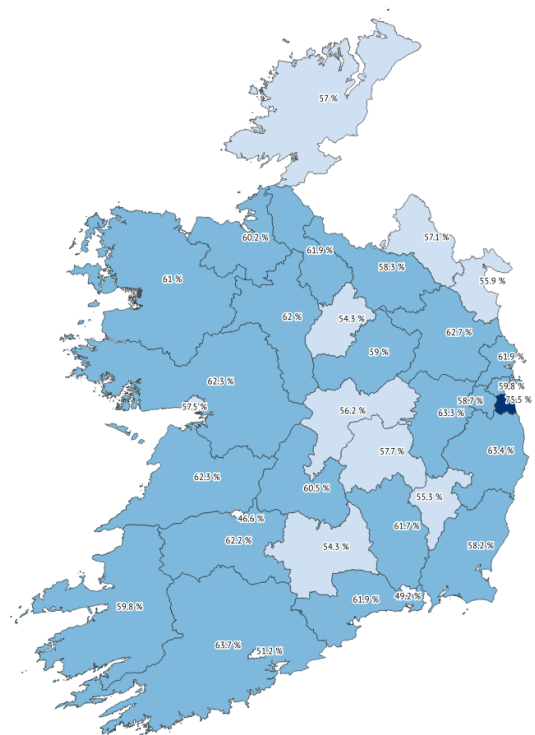
Skilled occupations 2011

Third level holder 2016

Skilled occupations 2016

The image above presents the third level education holders and skilled workers in Irish counties between 2011 and 2016. The scope is to find if there is a correlation between higher education and employment prospects for highly skilled people.

Third level education is considered any studies completed after secondary school. The data used for this is Technical or Vocational qualification Advanced Certificate/Completed Apprenticeship, Higher Certificate, Ordinary Bachelor Degree or National Diploma, Honours Bachelor Degree, Professional Qualification or both, Postgraduate Diploma or Degree and Doctorate(PhD) or higher.

Skilled occupations are considered occupations that require one form of higher education. These occupations include Manager, Directors, Professional, Associate Professional, Technical, Administrative, Secretarial and other Skilled occupations.

Between 2011 and 2016 was a 5% average national increase in third level education holders. On the other side, the skilled jobs occupancy remains at the same levels or dropped slightly in some areas. This proves that there is no correlation between education achievements and employment prospects.

Given that the unemployment rate also dropped by a national average of around 6 per cent from 2011 to 2016, it means that highly qualified people are working in positions they are over-qualified for.

2016 Primary Degree or Higher Qualification holders

In 2016 most of the people holding a Primary Degree (NFQ Level 7) or higher qualification were recorded in and around urban areas like Dublin, Galway, Cork and Sligo.

Dún Laoghaire-Rathdown recorded 49.9% and Galway City 41.2% of their occupants as holding such a qualification.

2011 vs 2016 Unemployment patterns


- The dataset considered for this exercise was *people looking for first regular job and unemployed people having lost or given up the previous job*. Retired people, children, students and people with disabilities unable to work have been excluded from the equation, as they are not considered to actively seeking work.
- Between 2011 and 2016 unemployment levels dropped across the country.
- Higher levels of unemployment were recorded in many rural areas with Donegal being the first place with 26.2% in 2011 and Longford holding the national high in 2016 with 19.6%.
- The lowest rate recorded was 11.2% in 2011 and 7.4% in 2016 in Dún Laoghaire-Rathdown.
- Apart from Dublin the lowest unemployment rate is recorded in Cork County 14.8% in 2011 that dropped to only 9.2% in 2016. Cork city recorded 22.2% in 2011 and 15% in 2016. The conclusion can be that people are living outside the urban area but travel for work into the big cities.
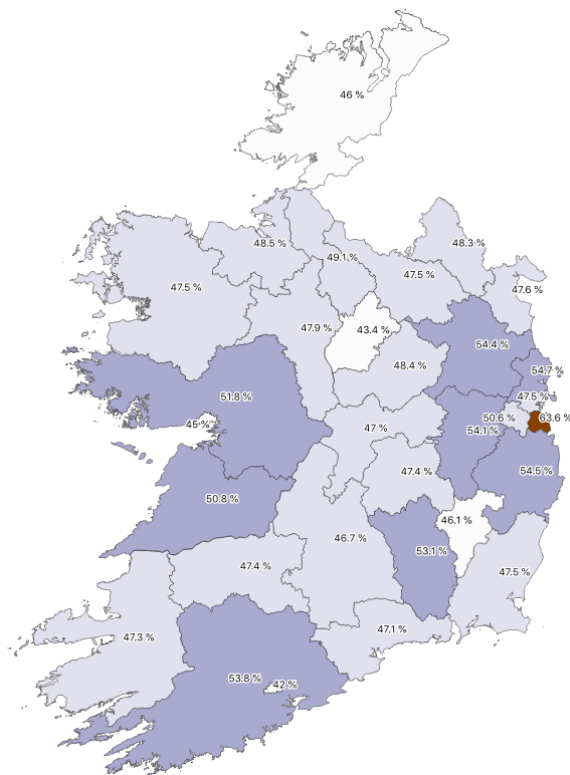
The question to be answered in the next part is if there a correlation between employment/unemployment – socio-economic group and occupation
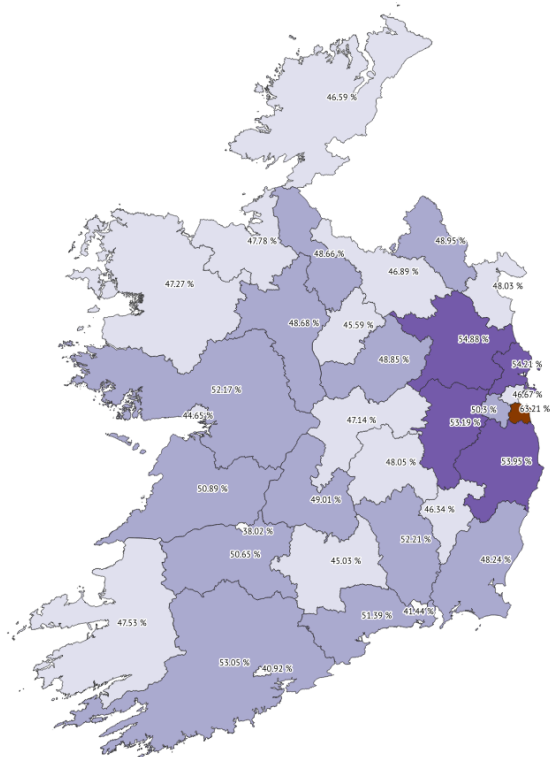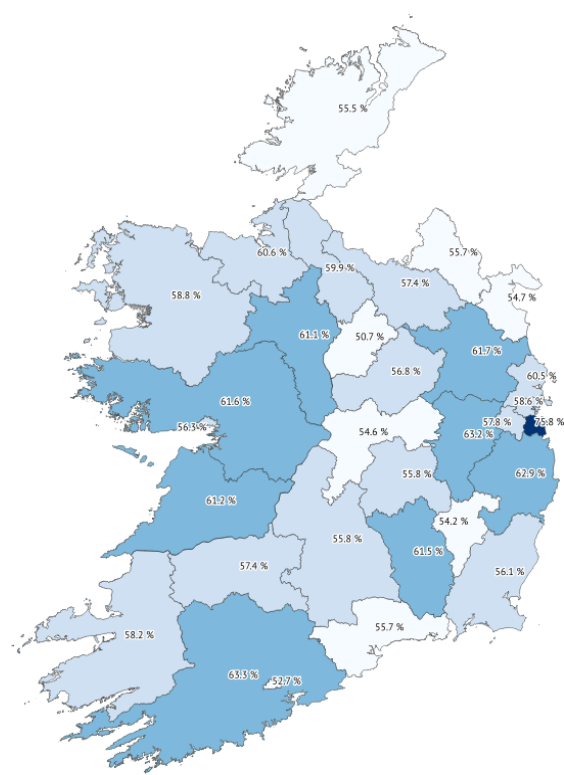

Socio-economic category 1 - 2011
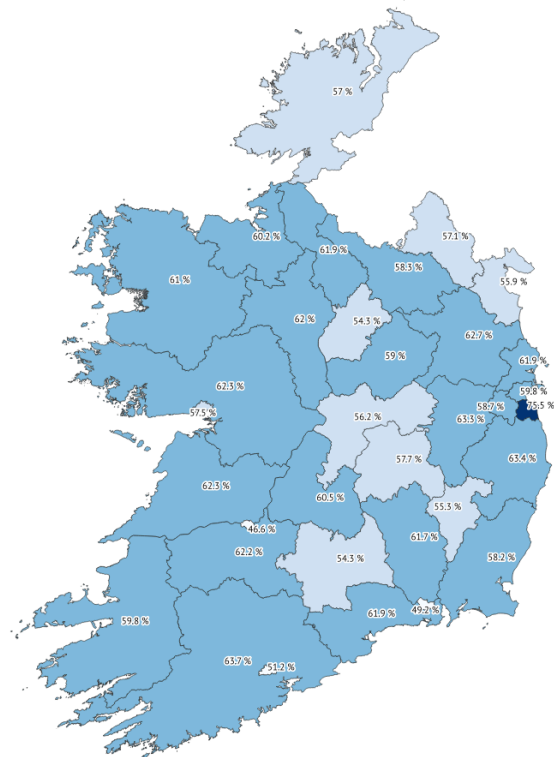
Skilled occupations - 2011

Socio-economic category 1 - 2016

Skilled occupations - 2016

For the purpose of this exercise, I considered classifying the socio-economic group 1 as consisting of *Professional, Managerial, Technical and Skilled* workers.

Skilled occupations considered for this category are *Managers, Directors, Professional, Associate Professional, Technical, Administrative, Secretarial and other Skilled occupations*.

By comparing the *socio-economic group 1, skilled occupations and unemployment rate maps* from 2011 and 2016 it can be observed that low unemployment rates are recorded in areas where dominant is socio-economic group 1, and the occupations related to the social category.

This show there is a correlation between employment – socio-economic groups and occupations with people belonging to a good socio-economic category more likely to be employed.