A Spatial & Socio-Economic Profile of Higher Education Institutions in Ireland

Using Census Small Area Deprivation Index Scores derived from Student Home Address Data, Academic Year 2017/18

All analysis in this profile is of the Irish student population in higher education in Ireland, based on domicile, and only includes HEA funded higher education institutions, excluding Trinity College Dublin.

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For more information please contact Victor Pigott, Senior Statistics Manager, Statistics Unit, Higher Education Authority at statistics@hea.ie

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National Plan for Equity of Access to Higher Education Policy Context

Background

Goal 3 of the National Plan for Equity of Access to Higher Education 2015-2019 is to "gather accurate data and evidence on access and participation and to base policy on what that data tells us". Specifically, the National Access Plan identified the need to develop an overall data strategy for equity of access; to review current and new data to see how this may be developed to identify geographic areas with high levels of disadvantage and to analyse rates of participation in higher education from those areas.

Since 2007 the HEA has used the Equal Access Survey (EAS) to collect equal access data on the socio-economic, ethnic/cultural and disability background of incoming students. The socio-economic elements of the EAS are based on the socio-economic group categories used in the Census. Throughout the National Access Plan's consultation phase, the limitations of the current data in relation to students from target socio-economic groups was raised including the need to move away from a survey-based approach for measuring disadvantage to one that made use of recent technological advances in data collection to develop a more refined and targeted understanding of socio-economic disadvantage. In addition, it was felt that changing perceptions and definitions of socio-economic groups presented challenges in interpreting data relating to these issues.

The socio-economic groups currently identified as target groups in the National Access Plan are:

- Non-manual worker group
- Semi/unskilled manual worker group

Arising from the stated goal in the National Access Plan, the HEA subsequently commissioned Trutz Haase to examine and report on a data plan for equity of access to higher education with an emphasis on the development of a new approach to socio-economic group data. Key stakeholders were involved in this process. The report was completed in late 2017 and published in 2018 and sets out a new framework for evidence based-policy making and target setting for equity of access.

A further important development relevant to the above-mentioned goal in the National Access Plan is the Review of the Allocation Model for Funding Higher Education Institutions

published in January 2018. Among the metrics currently underpinning the block grant allocations to HEIs from the State are those relating to student numbers from the equity of access target groups, including socio-economic groups. These metrics are included in the block grant in recognition of the traditionally higher cost associated with the provision of supports and services to students from equity of access target groups. As part of its recommendations, the review of the funding model recommended that the "use of the Equal Access Survey as the basis for access allocations on the basis of target socio-economic groups should be reviewed by the HEA, with consideration given to how a wider base of metrics can be developed and drive access allocations over time."

Therefore, the recommendation made in the funding model review supports the stated goal of the National Access Plan in relation to the development of a data plan for equity of access to higher education.

Data Plan for Equity of Access to Higher Education

The main approach underpinning the Trutz Haase report was that the data plan for equity of access to higher education be based on identifying and geocoding students entering and studying in higher education institutions and estimating the socio-economic position of these students by identifying the Census small area based on home address. As the report states, "this way of identifying socio-economic position – using an aggregate-level indicator as proxy – provides an accurate and effective measure of social background" and helps overcome the challenges presented by a survey-based approach e.g. low response rate, understanding of questions by respondents as well as the principle of determining socio-economic position based on parent's occupation. The report also noted that the use of aggregate small area data is widely used in other fields such as health and is also consistent with the approach adopted by the Department of Education and Skills in identifying schools for inclusion in the DEIS programme.

Progress to date

Since the publication of the Trutz Haase report, the HEA has taken several steps in implementing its recommendations.

For the 2017/18 academic year the HEA's Student Record System (SRS) was enhanced by the collection of name and address data for all enrolments and graduates in all but one higher education institution who did not return address data. This address information was subsequently geocoded. Using this information, the HEA has been able to analyse the socio-

economic profile of Irish higher education students on an individual institutional level and, as presented in this report, develop deprivation index scores and profiles for each institution.

Next steps

The information contained in this report represents a step forward in meeting Goal 3 of the National Plan for Equity of Access to Higher Education. Although it covers just one academic year, the data is a rich and valuable source of information for higher education institutions and policymakers. This data offers both opportunity and potential to develop a better and more refined understanding of the socio-economic make-up of higher education student population and to further develop policy relating to access to higher education, funding, social inclusion and other relevant public policy interventions.

There are two immediate implications arising from this revised set of data. The first relates to the setting of targets for participation in higher education among students from disadvantaged socio-economic backgrounds. Following the publication of a Progress Review in December 2018, the National Plan for Equity of Access to Higher Education has been extended to 2021. The development of deprivation index scores means that the next National Access Plan, consultation for which will start in 2020, will likely include not only revised targets for participation among students from disadvantaged socio-economic backgrounds but also a recategorisation and change in definition of these target groups.

Secondly, the development of deprivation index scores will allow the HEA to explore how these scores can be used to inform access metrics in block grant allocations to higher education institutions as a replacement to the Equal Access Survey-based approach. This is in line with the recommendation in the Review of the Allocation Model for Funding Higher Education Institutions.

In relation to both the setting of revised targets for participation in higher education among students from disadvantaged socio-economic backgrounds and the revised socio-economic data to inform the access metrics used in core grant allocations, it is important to note that just one year's worth of data is currently available. Data for additional academic years after 2017/18 will be required to fully understand trends and the performance of institutions in improving access.

In relation to the setting of targets, the consultation process for the next National Access Plan will be key to identifying the views of stakeholders in relation to the development of revised targets or redefined target groups.

In relation to funding, any change arising from the introduction of revised metrics will need to be gradually phased in over a period and take into consideration measures to moderate against significant fluctuations in funding levels. Additional years of data will also be required before a new model can be implemented. This gradual and moderated approach is consistent with previous approaches taken to significant changes in the HEA's funding model.

The HEA will continue to work closely with the Department of Education and Skills and higher education institutions in the implementation of the Data Plan for Equity of Access to Higher Education and use the information contained in this report to better understand the composition and diversity of higher education students in Ireland as well as the backgrounds and communities from which they come.

Introduction and Methodology

This report uses 2017/18 student address data in the HEA Student Records System to analyse the socio-economic profile of Irish higher education students in Ireland by institute. HP deprivation index scores based on Census small areas that students come from are used to assign a relative measure of deprivation/affluence to students for aggregate analysis[1]. HP deprivation index scores are a composite index of 10 Census measures (the age dependency rate, population change, primary education figure, third level education figure, professional classes figure, persons per room, lone parents figure, semi and unskilled classes figure, male unemployment rate and female unemployment rate). These measures cover the demographic profile, social class composition and labour market situation of each area. For this analysis the 2016 Census relative HP scores for small areas are used. On average, there are just under 100 households in each Census small area, with a high degree of homogeneity. The maps presented in this report are at Census Electoral Division level rather than at small area level as the latter is too detailed for maps of this nature (the deprivation index scores used are all at small area level). This method of measuring disadvantage is also used by the Department of Education and Skills in DEIS programme identification[2].

Deprivation index scores range from around -40 to +40. The most disadvantaged areas have scores less than -30 and the most affluent areas have scores greater than +30. Less than -10 is considered disadvantaged (used in DEIS school identification) and more than 10 is considered affluent for the analysis in this report. The scores for the whole population by area *approximately* follow a normal distribution with a mean of zero and standard deviation of 10 (therefore just less than 16% of areas have scores less than -10). The mean of the higher education population in this analysis (total enrolments, full-time + part-time), based on the small areas they come from, is 1.9. 10% of the higher education population in this analysis, based on the small areas they come from, are from disadvantaged areas (<-10).

Firstly, a national overview of the data is presented, followed by a broad overview profile of 24 higher education institutes. Address data are not available for Trinity College Dublin, so TCD is excluded from all analysis in this report, including the national analysis. The most disadvantaged and affluent field of study cohorts in each HEI are shown, as well as a comparison to the deprivation index scores of local areas in general. A measure of the average road distance between students home locations and the college is also included. Finally, an analysis of medicine and of the relationship between deprivation index scores and graduate outcomes (earnings data) are presented to show further value of these data.

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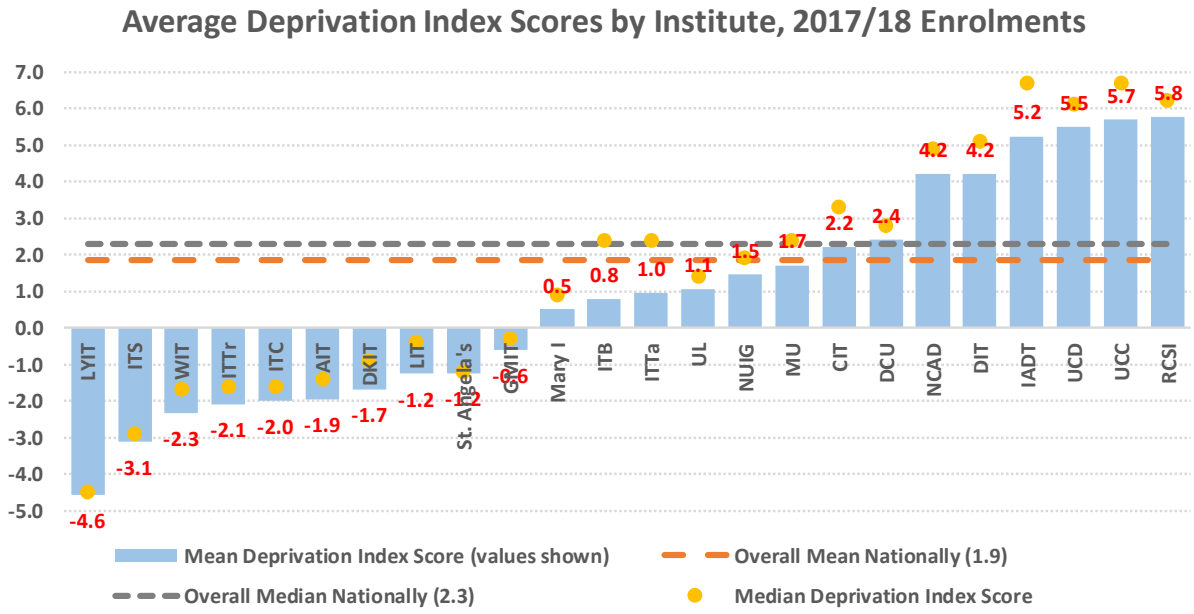
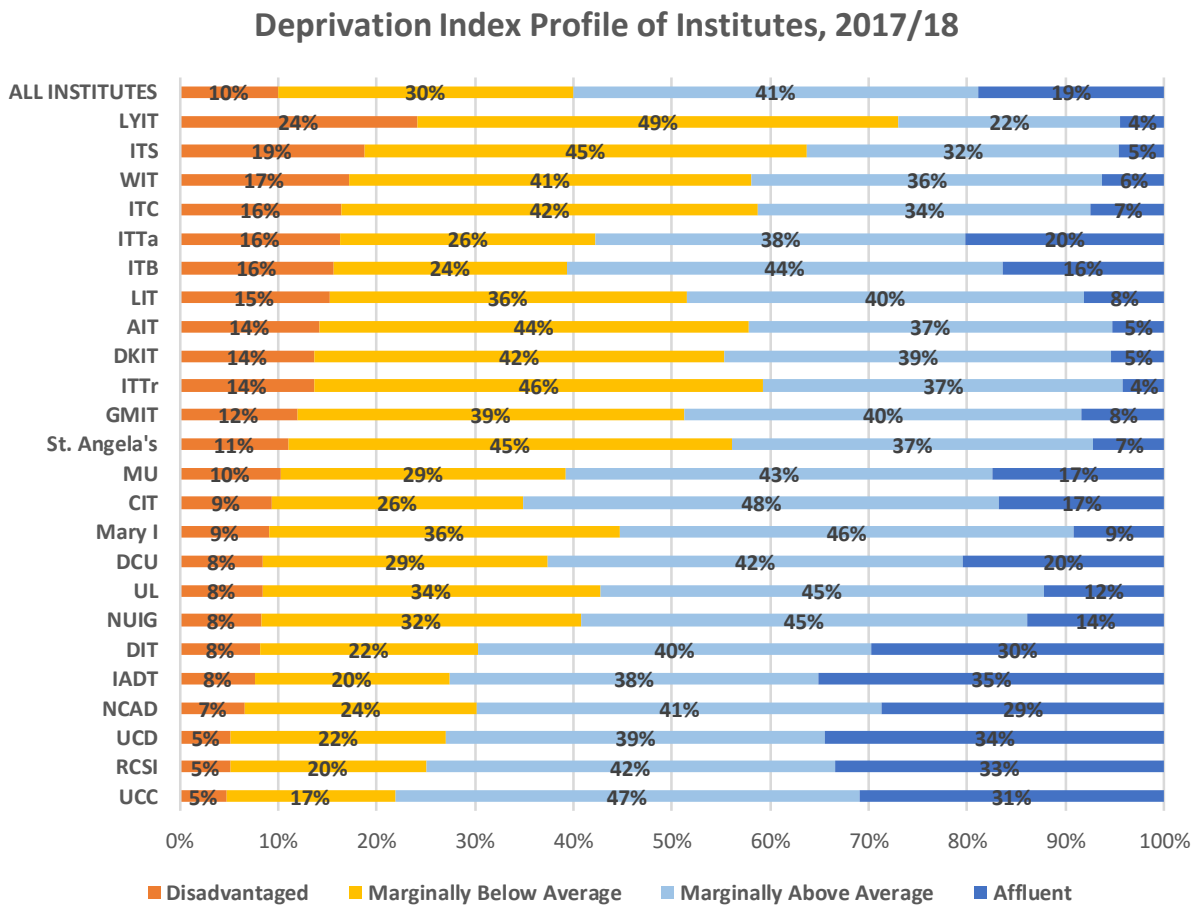
[1] https://www.pobal.ie/app/uploads/2018/06/The-2016-Pobal-HP-Deprivation-Index-Introduction-07.pdf; Haase, T. & Pratschke, J. (2018) The Pobal HP Deprivation Index for Small Areas in the Republic of Ireland. Dublin: Pobal.

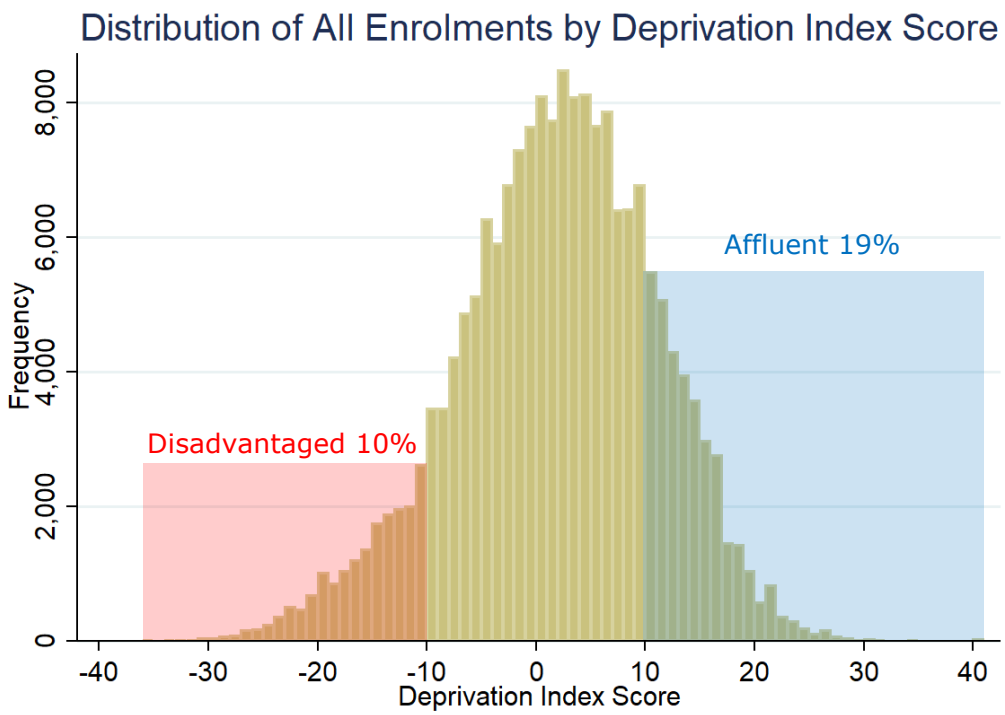
[2] https://www.education.ie/en/Schools-Colleges/Services/DEIS-Delivering-Equality-of-Opportunity-in-Schools-/DEIS-Identification-Process.pdf

National Overview

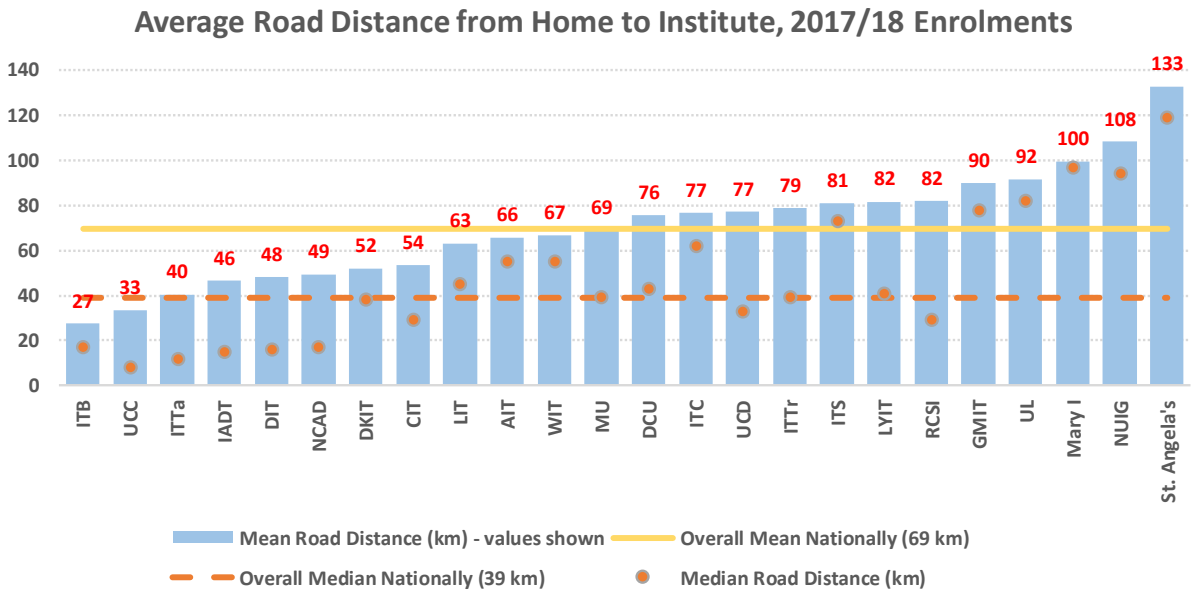




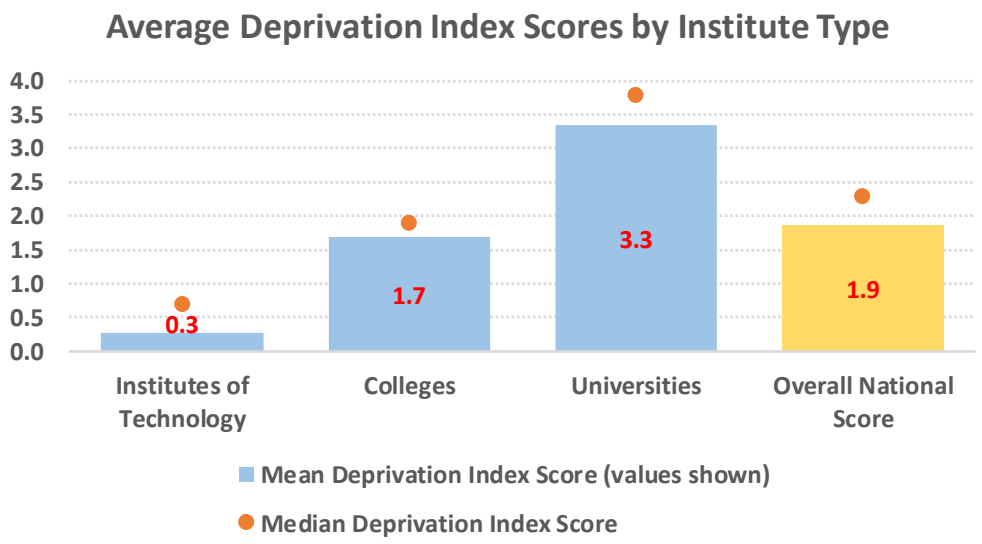
This analysis is based on all HEI enrolments in academic year 2017/18. Trinity College Dublin are not included as no address data are available. Small area deprivation index scores are available for 99% of Irish students, excluding TCD (circa 183,000 students in the analysis).



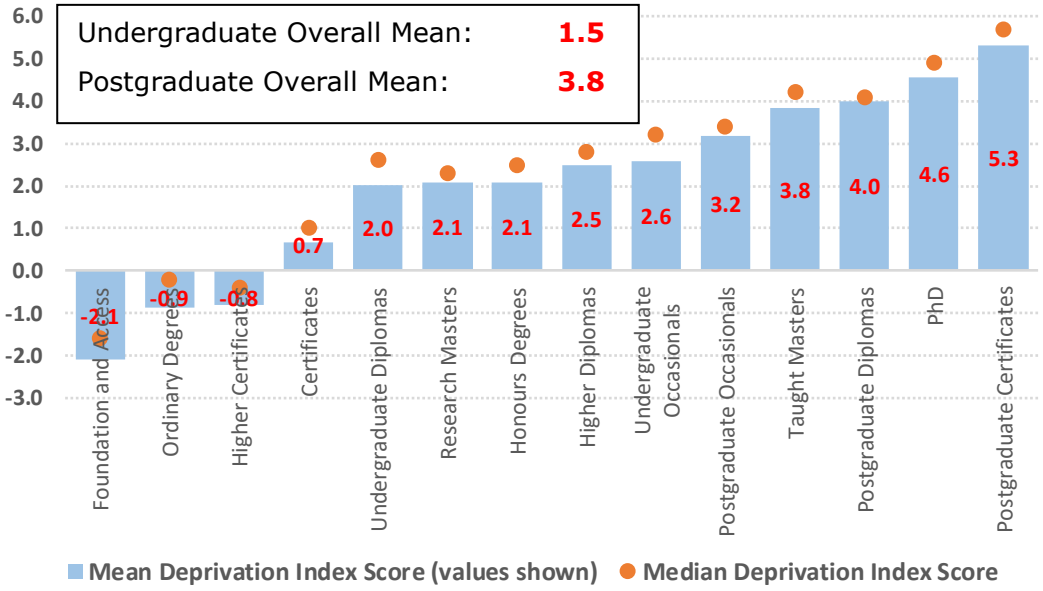
Score	Group
Below -30	Extremely disadvantaged
-20 to -30	Very disadvantaged
-10 to -20	Disadvantaged
0 to -10	Marginally below average
0 to 10	Marginally above average
10 to 20	Affluent
20 to 30	Very affluent
Over 30	Extremely affluent



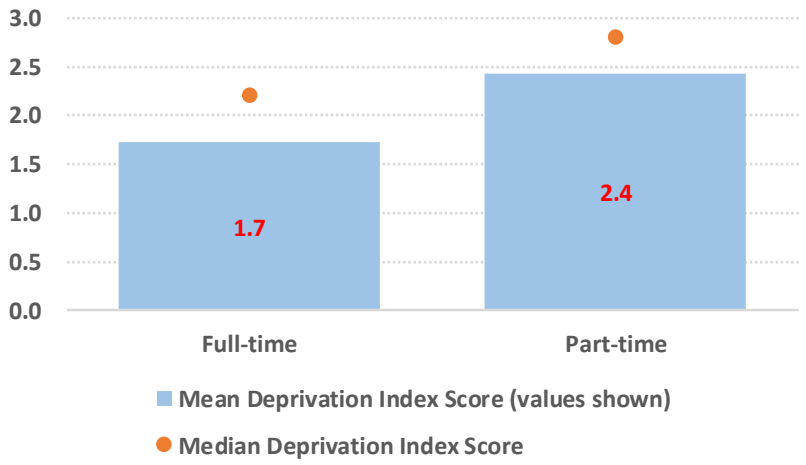
Detailed ISCED Field of Study: Top 15 Most Affluent and Disadvantaged Cohorts	Mean Deprivation Index Score
(0311) Economics	7.1
(0322) Library, information and archival studies	6.7
(0912) Medicine	6.5
(0540) Mathematics and statistics n.e.c.	6.2
(0223) Philosophy and ethics	5.7
(0412) Finance, banking and insurance	4.9
(0312) Political sciences and civics	4.5
(0710) Engineering and engineering trades n.e.c.	3.9
(0731) Architecture and town planning	3.9
(0231) Language acquisition	3.8
(0416) Wholesale and retail sales	3.8
(0711) Chemical engineering and processes	3.8
(0542) Statistics	3.7
(1010) Personal services n.e.c.	3.6
(0313) Psychology	3.5
.....	.....
(0520) Environment n.e.c.	0.0
(0722) Materials (glass, paper, plastic and wood)	0.0
(0821) Forestry	-0.3
(0788) Interdisciplinary programmes(engineering, manufacturing and construction)	-0.6
(0923) Social work and counselling	-0.8
(0819) Agriculture not further defined or elsewhere classified	-0.9
(0888) Interdisciplinary programmes (agriculture, forestry, fisheries and veterinary)	-1.0
(1014) Sports	-1.6
(0612) Database and network design and administration	-1.7
(0922) Child care and youth services	-1.8
(1032) Protection of persons and property	-1.8
(0712) Environmental protection technology	-2.0
(0920) Welfare not further defined or elsewhere classified	-2.2
(1031) Military and defence	-2.6
(0415) Secretarial and office work	-4.5



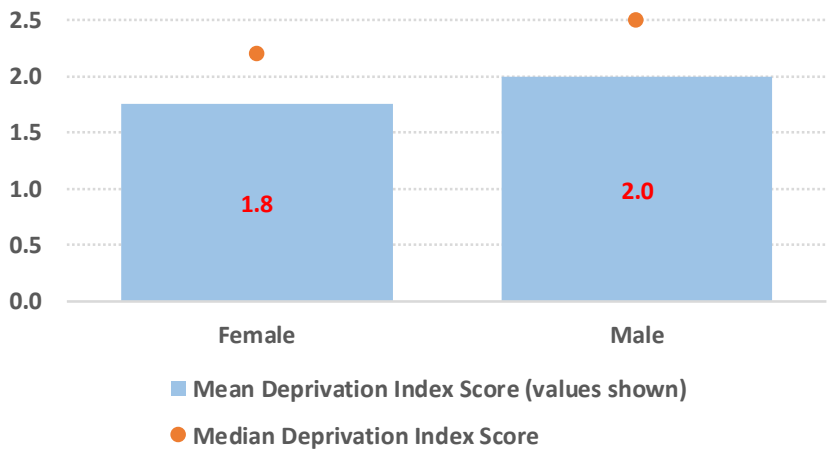
Average Deprivation Index Scores by Programme Type



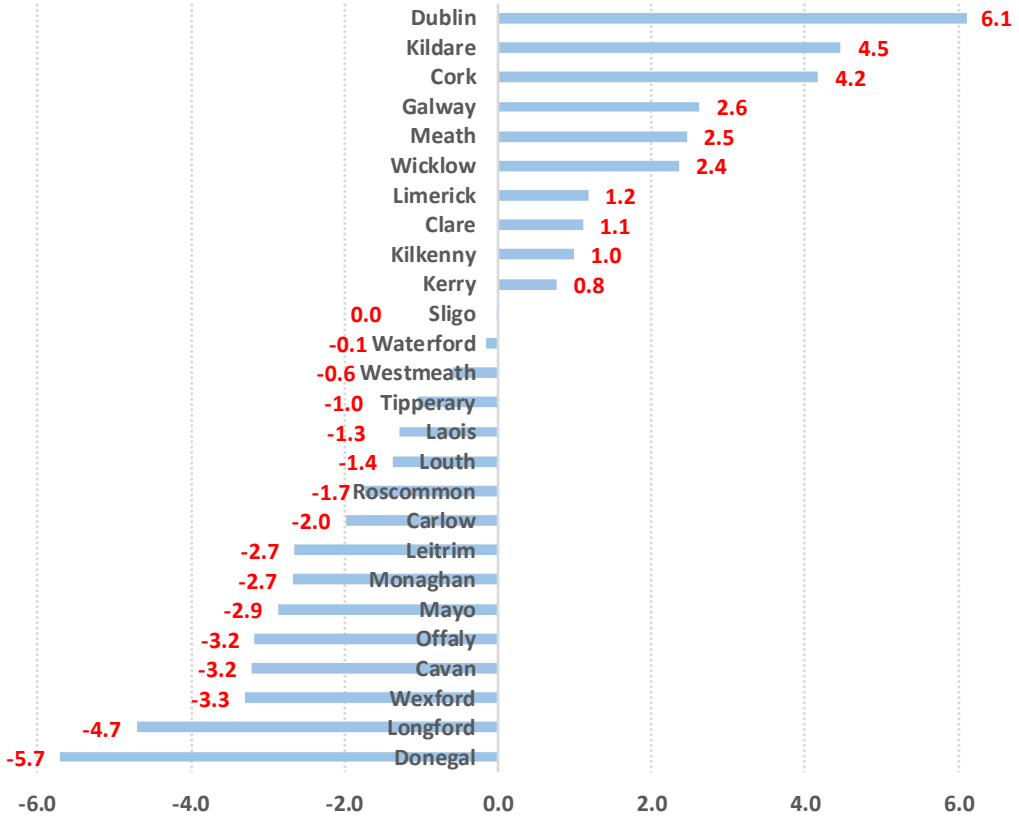
Average Deprivation Index Scores by Mode



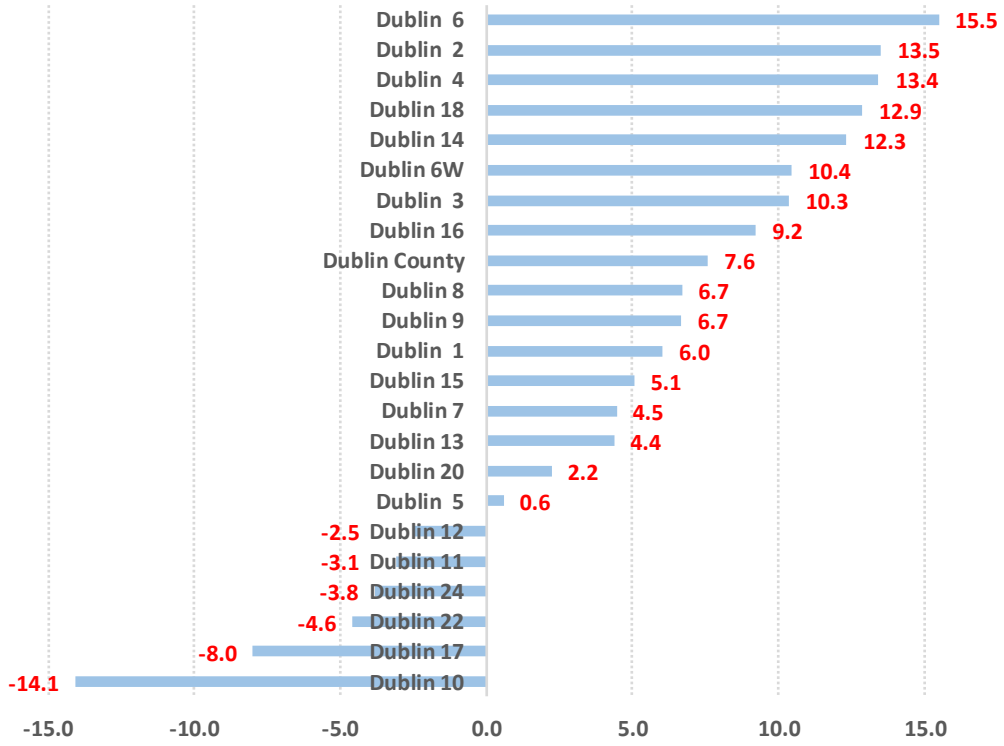
Average Deprivation Index Scores by Gender



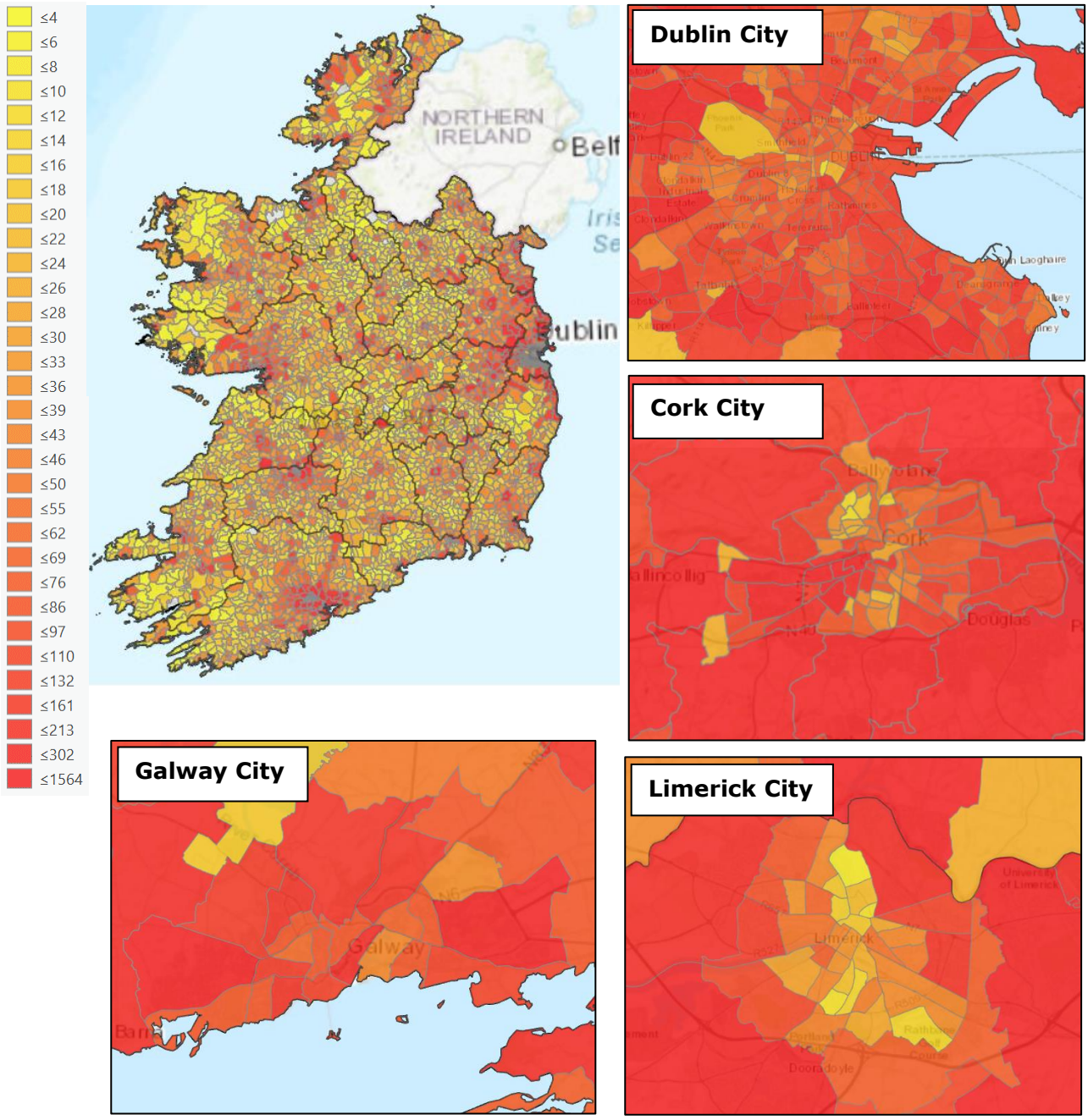
Mean Deprivation Index Scores by Home County



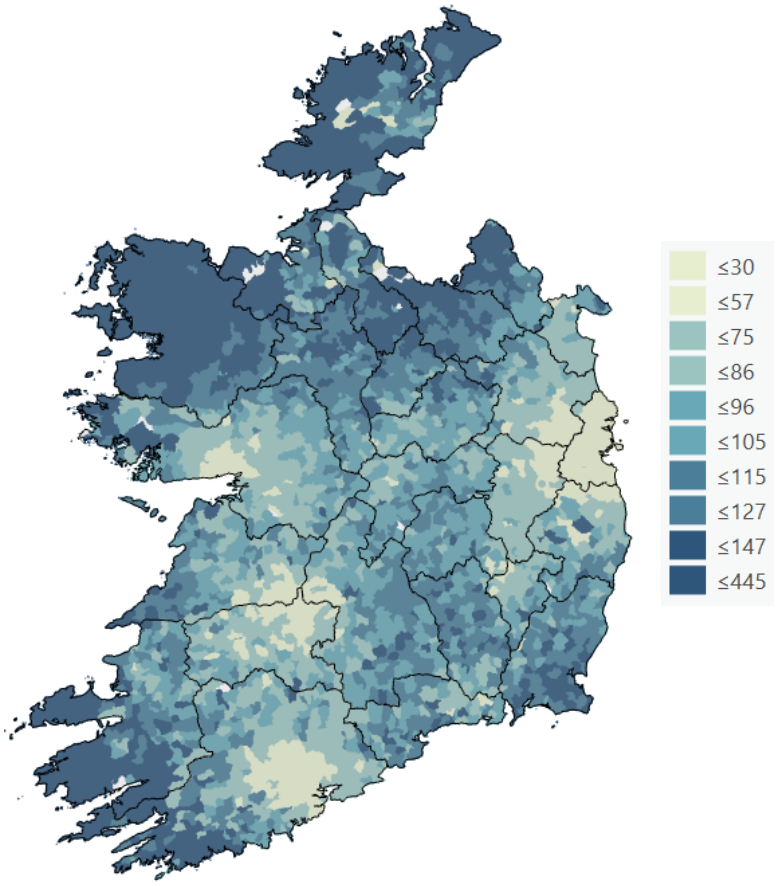
Mean Deprivation Index Scores by Dublin Postcode



Maps: Total Enrolments 2017/18 and Distance to College Analysis



The national map of higher education enrolments above largely reflects a population map of Ireland, with highly populated areas accounting for higher proportions of higher education enrolments. However, the more detailed maps of city areas show that there are pockets of deprived inner-city areas with relatively few higher education enrolments. For instance, areas of north Cork City around Blackpool (Fair Hill B ED deprivation index score = -22.3, Fair Hill A ED score = -15.6 & Blackpool A ED = -13.0) and areas such as St. Mary's Park (John's A ED score = -31.9) and O'Malley Park (Galvone B ED score = -28.1) in Limerick City have relatively few higher education enrolments compared to other areas in the respective cities. Note: Trinity College Dublin enrolments are not included in this analysis.

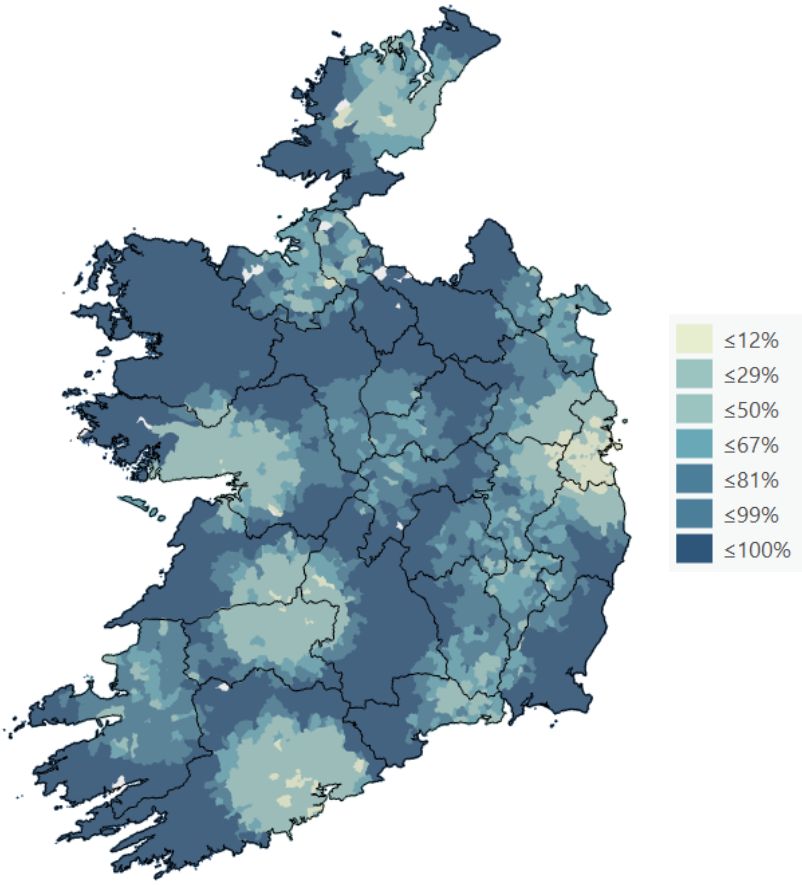


Map: Distance Travelled from Home Address to College (in kilometres)

Students from

- Mayo
- Donegal
- Leitrim
- Cavan
- Monaghan
- Sligo
- Roscommon
- Longford
- Wexford

travel more than 100km on average to go to college



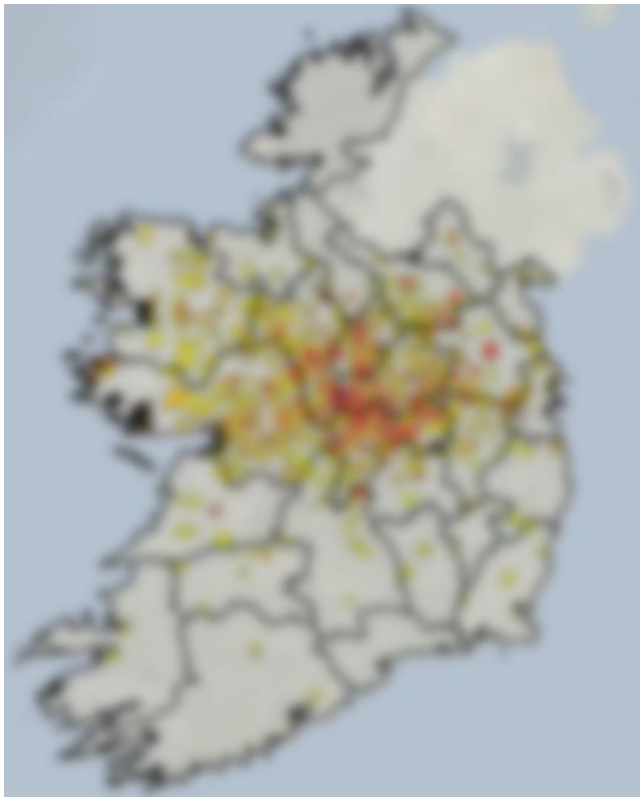
Map: Proportion Travelling More Than 45 Kilometres (eligible for non-adjacent SUSI rate)

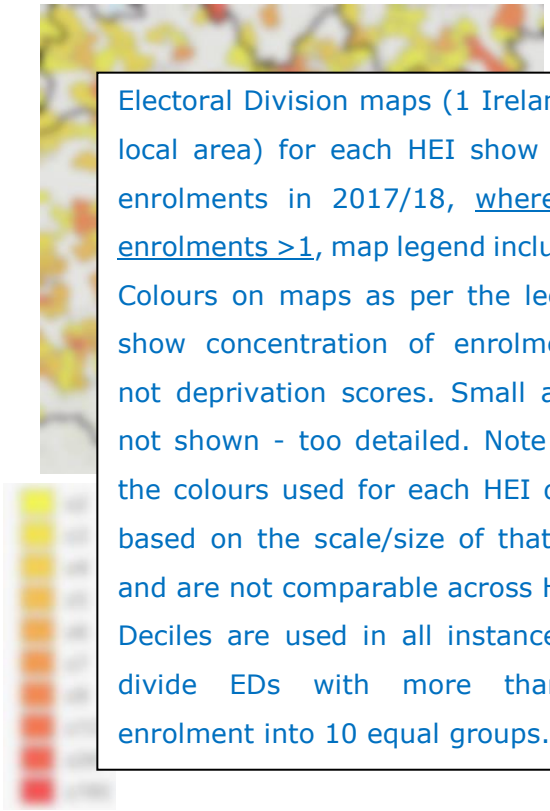
Over 80% of students from

- Cavan
- Mayo
- Wexford
- Longford
- Roscommon
- Monaghan
- Leitrim
- Laois
- Offaly

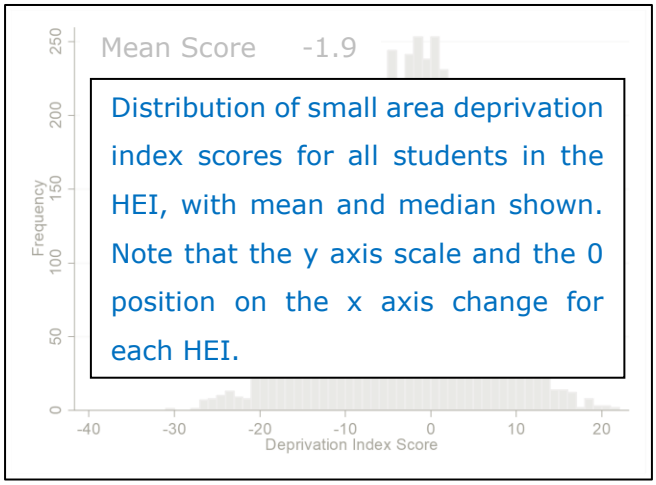
travel more than 45km to go to college

Profile Legend

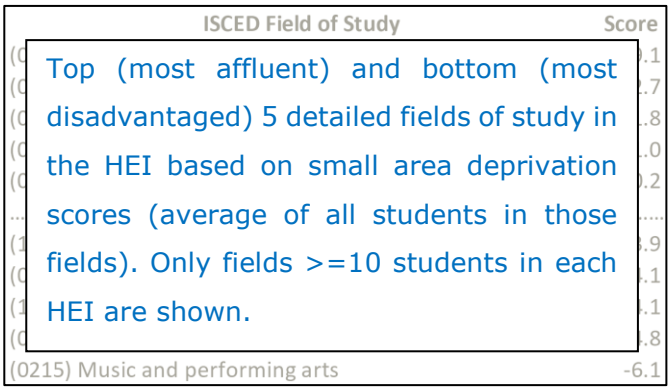




Electoral Division maps (1 Ireland, 1 local area) for each HEI show total enrolments in 2017/18, where ED enrolments >1, map legend included. Colours on maps as per the legend show concentration of enrolments, not deprivation scores. Small areas not shown - too detailed. Note that the colours used for each HEI differ based on the scale/size of that HEI and are not comparable across HEIs. Deciles are used in all instances to divide EDs with more than 1 enrolment into 10 equal groups.



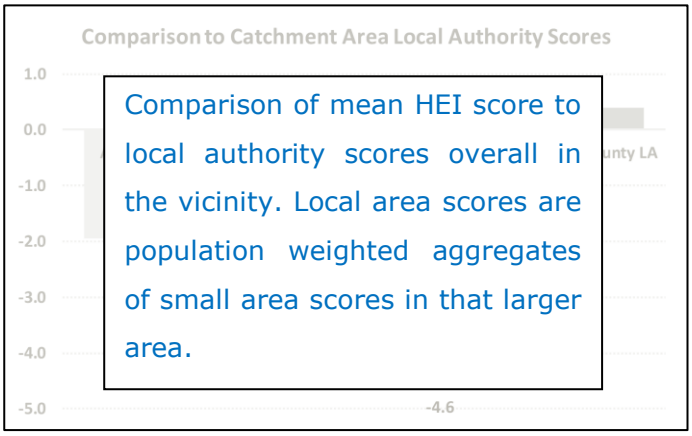
Distribution of small area deprivation index scores for all students in the HEI, with mean and median shown. Note that the y axis scale and the 0 position on the x axis change for each HEI.



Top (most affluent) and bottom (most disadvantaged) 5 detailed fields of study in the HEI based on small area deprivation scores (average of all students in those fields). Only fields >=10 students in each HEI are shown.

% Disadvantaged: % <-10 score

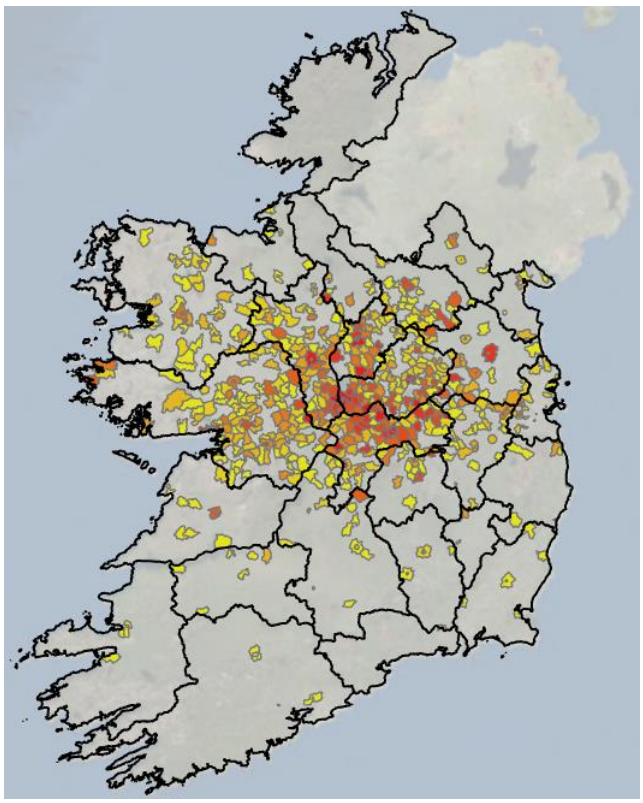
% Affluent: % >10 score

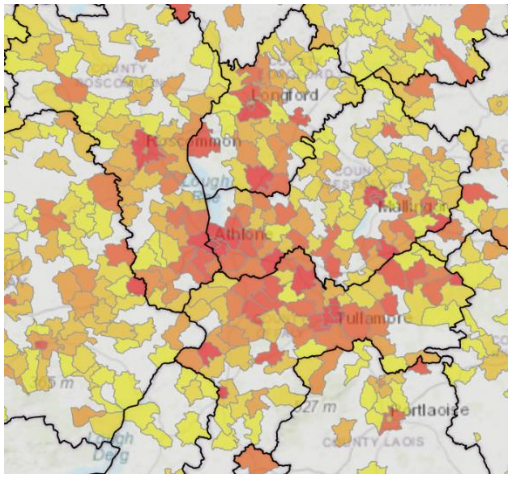


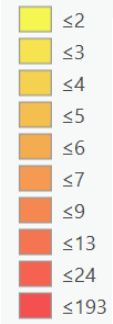
Comparison of mean HEI score to local authority scores overall in the vicinity. Local area scores are population weighted aggregates of small area scores in that larger area.

Mean/median road distance from home address in km (and minutes) to college for all enrolments - not term address.

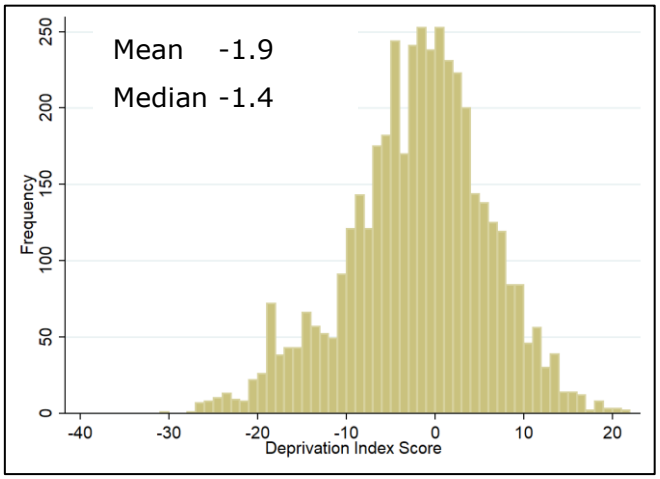
Athlone Institute of Technology (AIT)







The Electoral Division maps above show that AIT enrolments primarily come from the midlands area, concentrated around Athlone, Roscommon, Tullamore, Longford and east Galway.

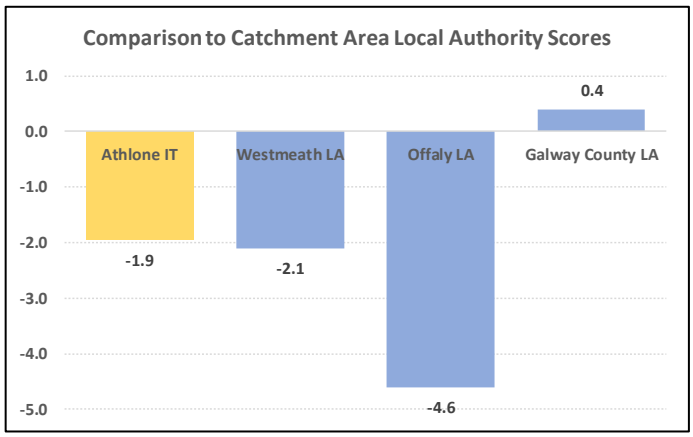


ISCED Field of Study	Score
(0921) Care of the elderly and of disabled adults	2.7
(0910) Health n.e.c.	1.8
(0841) Veterinary	0.2
(0722) Materials (glass, paper, plastic and wood)	0.1
(0230) Languages n.e.c.	-0.1
.....	.....
(1013) Hotel, restaurants and catering	-3.9
(0531) Chemistry	-4.1
(1015) Travel, tourism and leisure	-4.1
(0011) Basic programmes and qualifications	-4.8
(0215) Music and performing arts	-6.1

Enrolments based on Small Area Data:

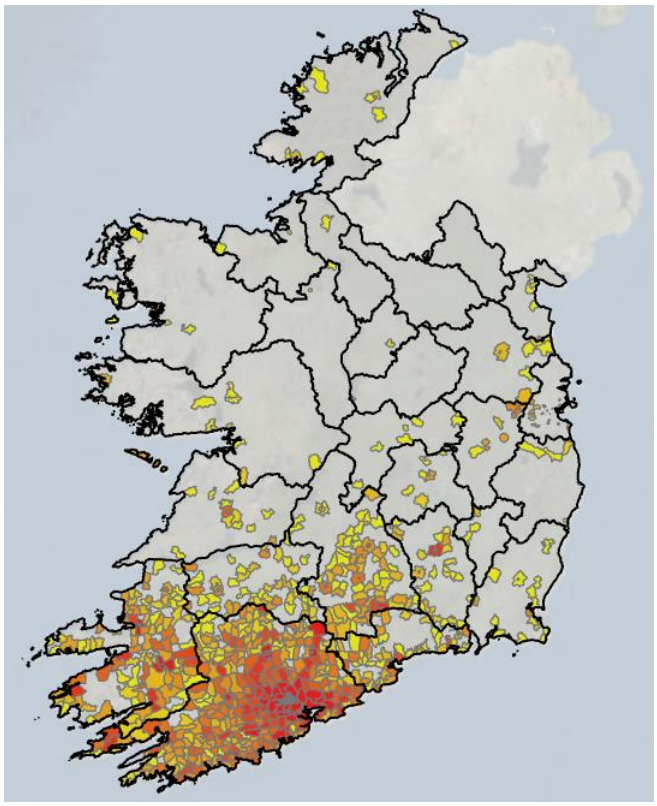
% Disadvantaged: **14%**

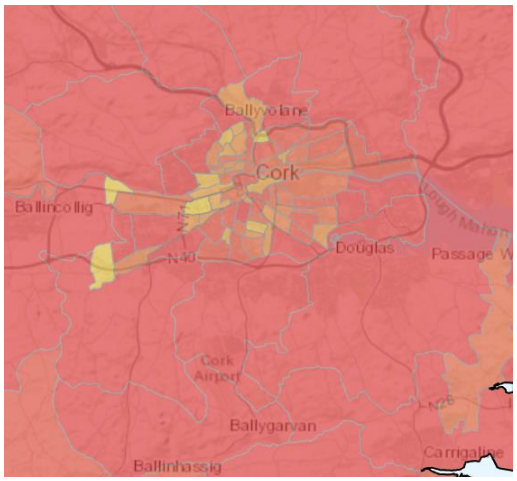
% Affluent: **5%**

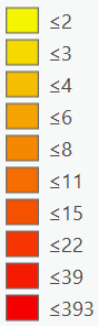


The mean distance from AIT students home addresses to the college is **66km (55km median)**, the mean travel time from home addresses to the college is **53 minutes**.

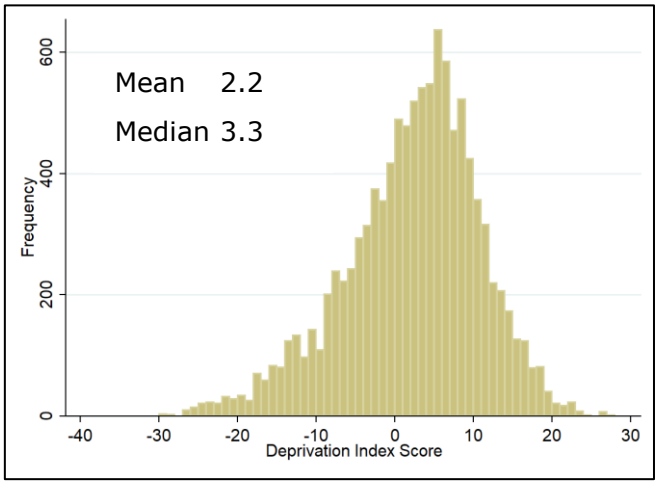
Cork Institute of Technology (CIT)



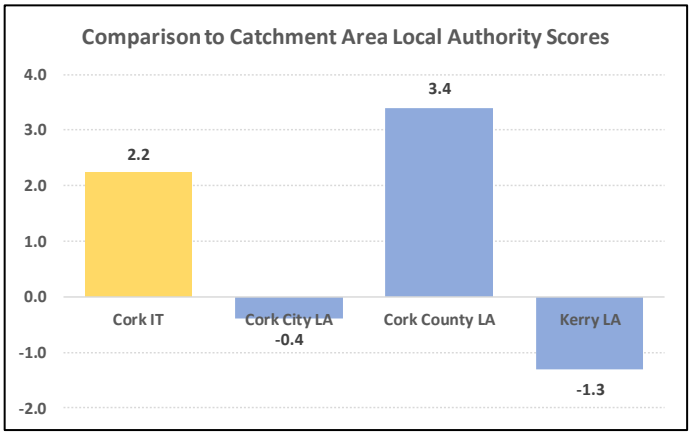




The ED maps above show that CIT enrolments primarily come from Cork and to a lesser extent Kerry. The map of Cork City shows that pockets of the inner-city have fewer enrolments than surrounding areas.



ISCED Field of Study	Score
(0416) Wholesale and retail sales	8.0
(0310) Social and behavioural sciences n.e.c.	7.5
(0110) Education n.e.c.	7.1
(0540) Mathematics and statistics n.e.c.	5.4
(0610) Information and Communication Technologies n.e.c.	4.7
.....	.....
(0819) Agriculture n.e.c.	1.1
(1015) Travel, tourism and leisure	1.0
(0716) Motor vehicles, ships and aircraft	0.3
(1013) Hotel, restaurants and catering	0.1
(0713) Electricity and energy	-0.2



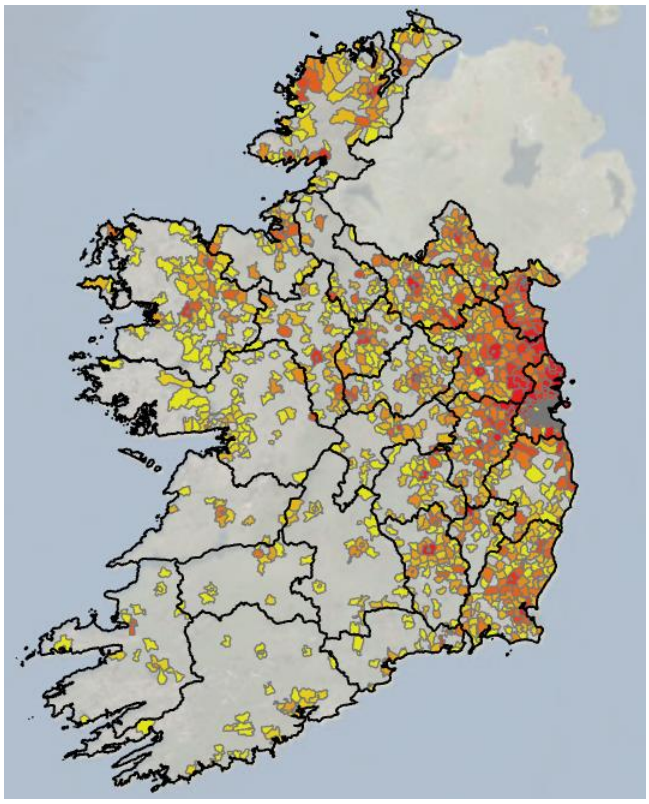
Enrolments based on Small Area Data:

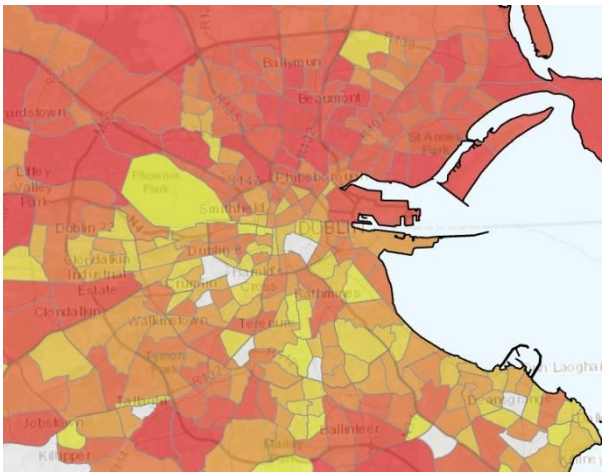
% Disadvantaged: **9%**

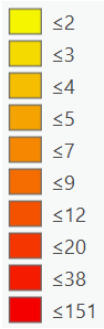
% Affluent: **17%**

The mean distance from CIT students home addresses to the college is **54km (median 29km)**, the mean travel time from home addresses to the college is **48 minutes**.

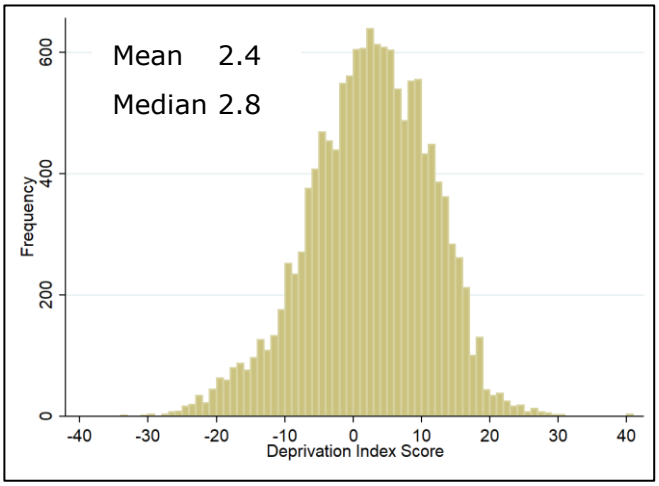
Dublin City University (DCU)



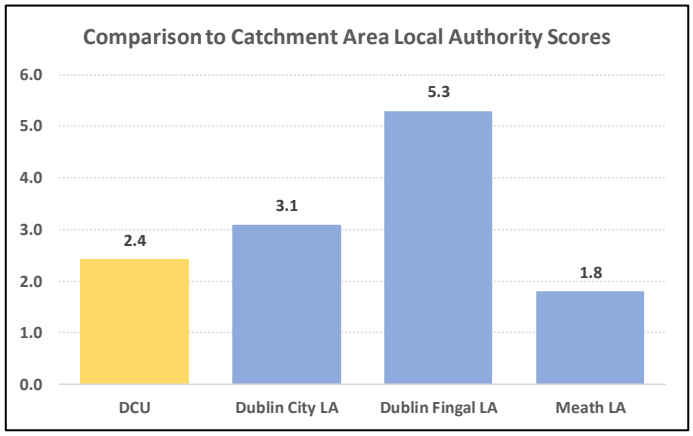




The ED maps above show that the DCU catchment area extends far beyond Dublin and surrounding Counties. Within Dublin, as expected, north Dublin has higher enrolment numbers than south Dublin.



ISCED Field of Study	Score
(0223) Philosophy and ethics	8.5
(0412) Finance, banking and insurance	7.2
(0221) Religion and theology	6.3
(0413) Management and administration	5.5
(0011) Basic programmes and qualifications	5.5
.....	.....
(0913) Nursing and midwifery	1.3
(0321) Journalism and reporting	0.9
(0210) Arts n.e.c.	0.7
(0114) Teacher training with subject specialization	-0.9
(0920) Welfare n.e.c.	-2.4



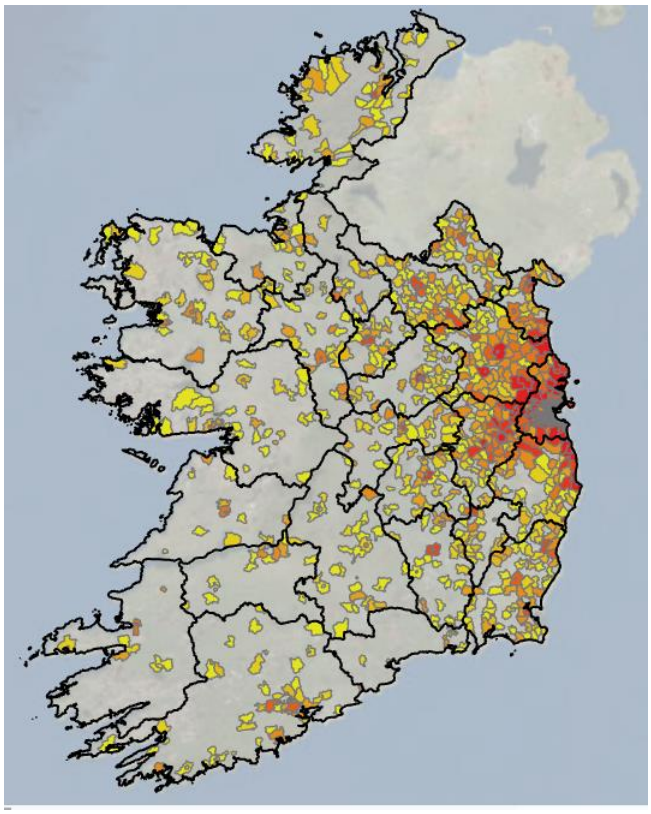
Enrolments based on Small Area Data:

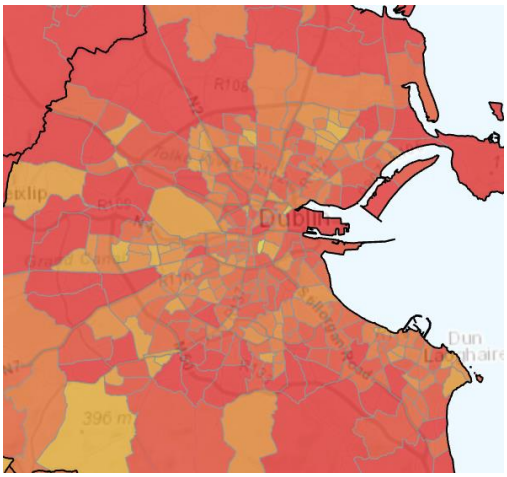
% Disadvantaged: **8%**

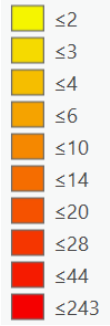
% Affluent: **20%**

The mean distance from DCU students home addresses to the college is **76km (median 43km)**, the mean travel time from home addresses to the college is **58 minutes**.

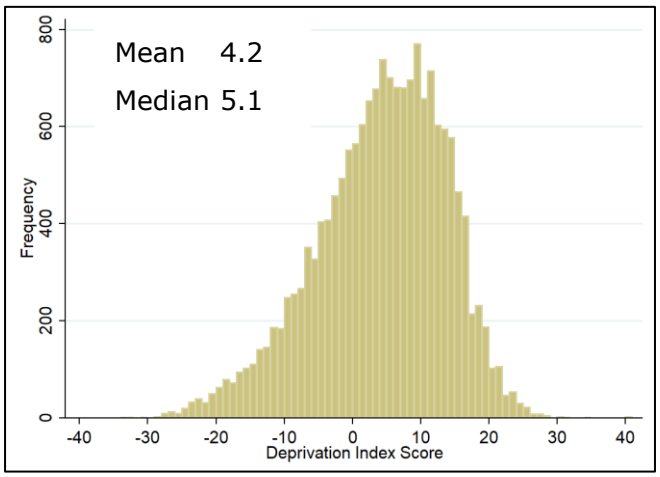
Dublin Institute of Technology (DIT)







The ED maps above show that DIT enrolments are concentrated in Dublin and nearby Counties with other enrolments coming from around the Country. Both north and south Dublin have high enrolment numbers.

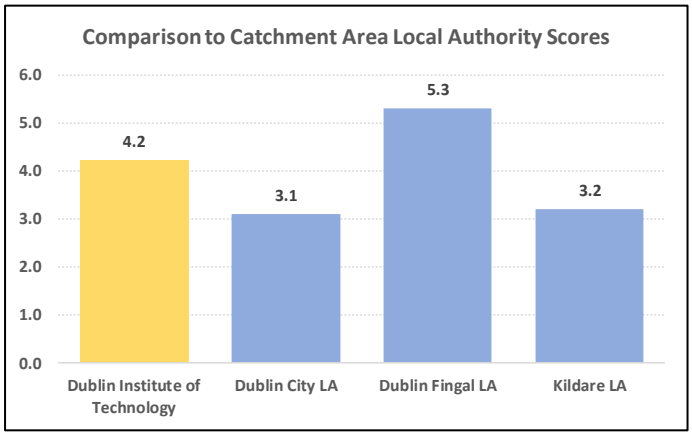


ISCED Field of Study	Score
(0540) Mathematics and statistics n.e.c.	9.4
(0314) Sociology and cultural studies	7.8
(0231) Language acquisition	7.5
(0610) Information and Communication Technologies n.e.c.	6.9
(0414) Marketing and advertising	6.7
.....	.....
(0530) Physical sciences n.e.c.	1.2
(0910) Health n.e.c.	0.8
(0021) Literacy and numeracy	0.2
(0711) Chemical engineering and processes	0.1
(0923) Social work and counselling	-0.6

Enrolments based on Small Area Data:

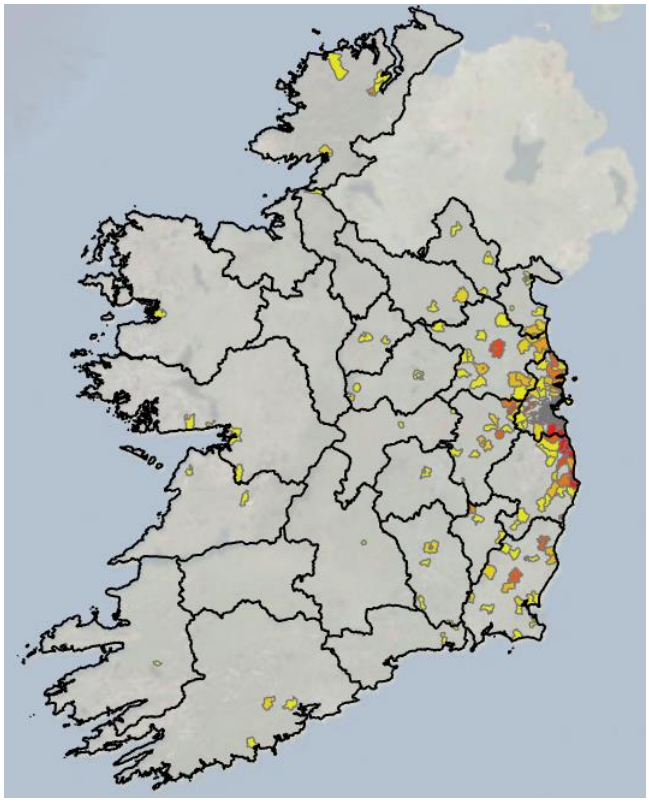
% Disadvantaged: **8%**

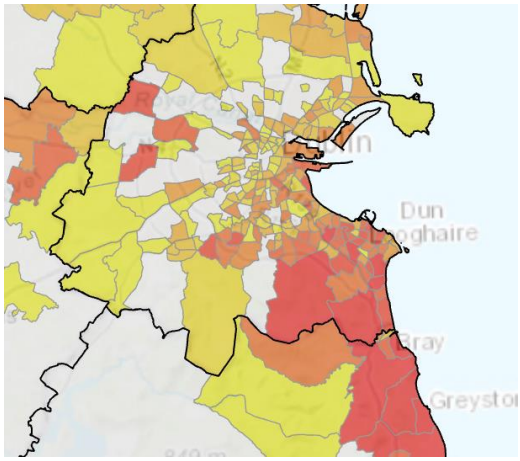
% Affluent: **30%**

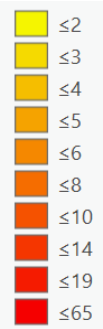


The mean distance from DIT students home addresses to the college is **48km (median 16km)**, the mean travel time from home addresses to the college is **45 minutes**.

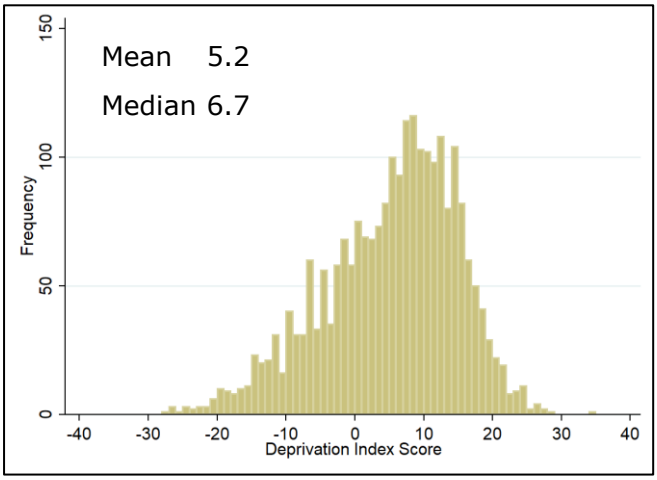
Dun Laoghaire Institute of Art, Design and Technology (IADT)







The ED maps above show that IADT enrolments are concentrated around south Dublin and north Wicklow, with relatively few enrolments from around the Country.

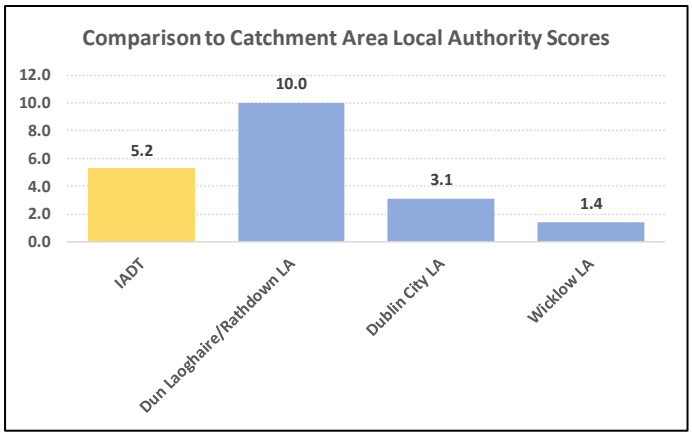


ISCED Field of Study	Score
(0413) Management and administration	7.8
(0541) Mathematics	7.7
(0111) Education science	7.4
(0611) Computer use	6.6
(0410) Business and administration n.e.c.	6.5
.....	.....
(0610) Information and Communication Technologies n.e.c.	5.4
(0211) Audio-visual techniques and media production	5.1
(0220) Humanities (except languages) n.e.c.	4.5
(0212) Fashion, interior and industrial design	4.3
(0213) Fine arts	2.9

Enrolments based on Small Area Data:

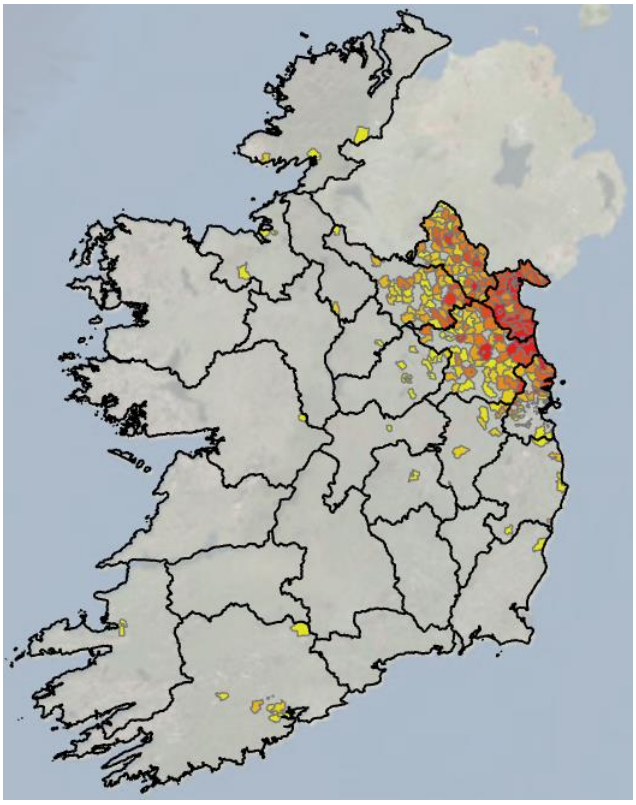
% Disadvantaged: **8%**

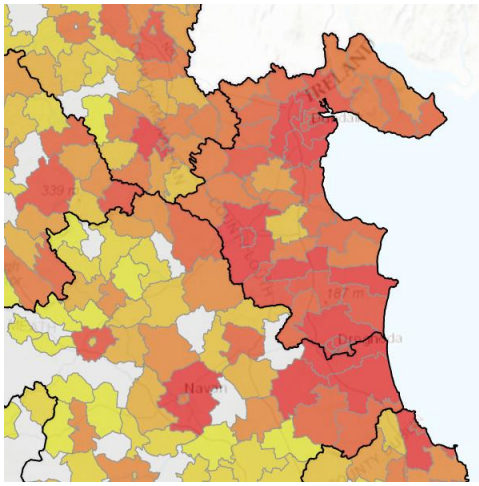
% Affluent: **35%**

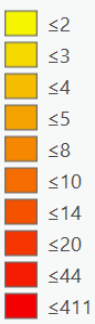


The mean distance from IADT students home addresses to the college is **46km (median 15km)**, the mean travel time from home addresses to the college is **40 minutes**.

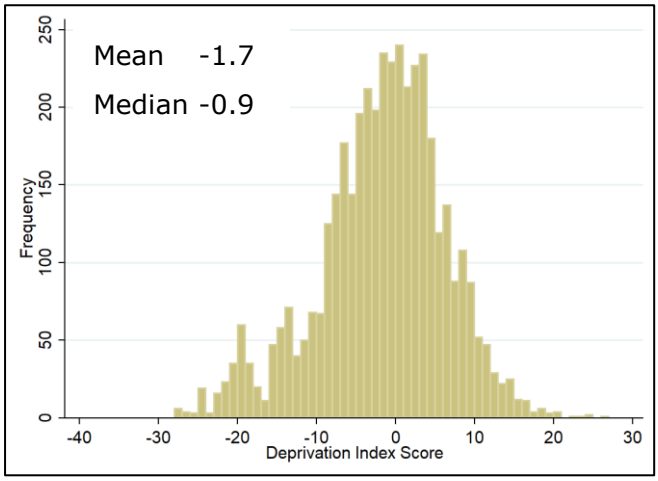
Dundalk Institute of Technology (DKIT)







The Electoral Division maps above show that DKIT enrolments primarily come from the north east region, particularly Louth itself and also Meath, Monaghan, Cavan and north Dublin.

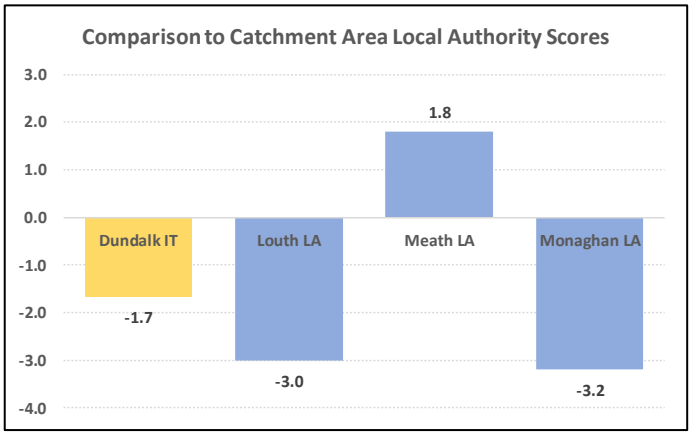


ISCED Field of Study	Score
(0113) Teacher training without subject specialization	4.1
(0841) Veterinary	2.7
(0111) Education science	2.6
(0611) Computer use	-0.2
(0923) Social work and counselling	-0.4
.....	.....
(0215) Music and performing arts	-2.3
(0411) Accounting and taxation	-2.5
(0413) Management and administration	-2.6
(0819) Agriculture n.e.c.	-3.6
(0314) Sociology and cultural studies	-5.4

Enrolments based on Small Area Data:

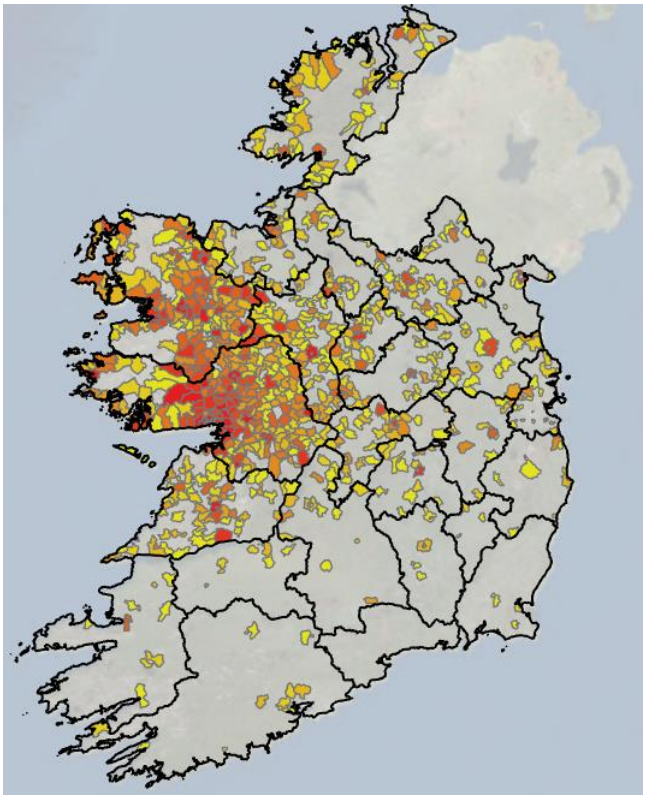
% Disadvantaged: **14%**

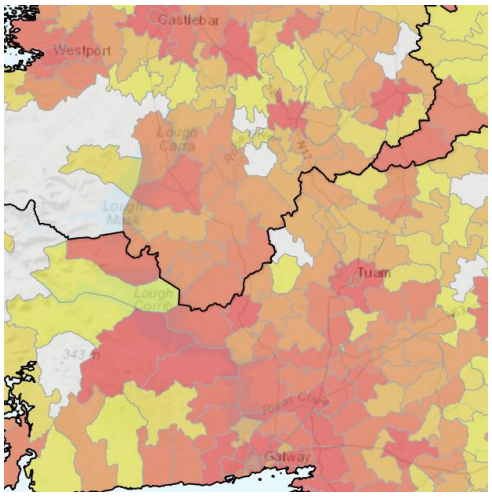
% Affluent: **5%**

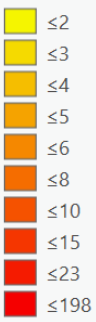


The mean distance from DKIT students home addresses to the college is **52km (median 38km)**, the mean travel time from home addresses to the college is **42 minutes**.

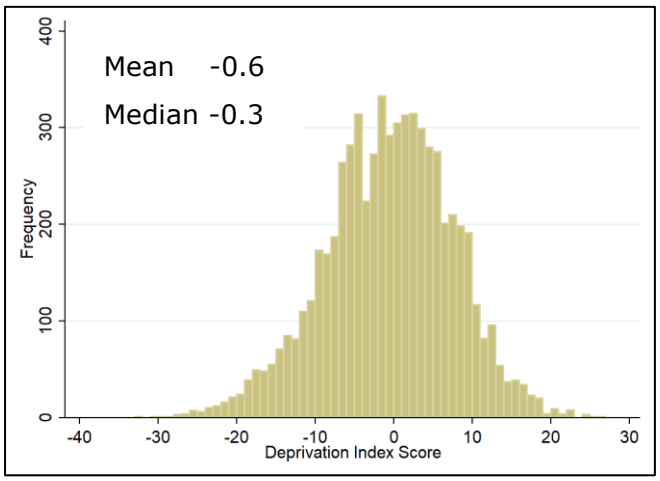
Galway-Mayo Institute of Technology (GMIT)







The ED maps above show that GMIT enrolments are concentrated in Galway and Mayo, particularly Galway City, north Galway and Castlebar. Other enrolments are dispersed around the west, midlands and Donegal.

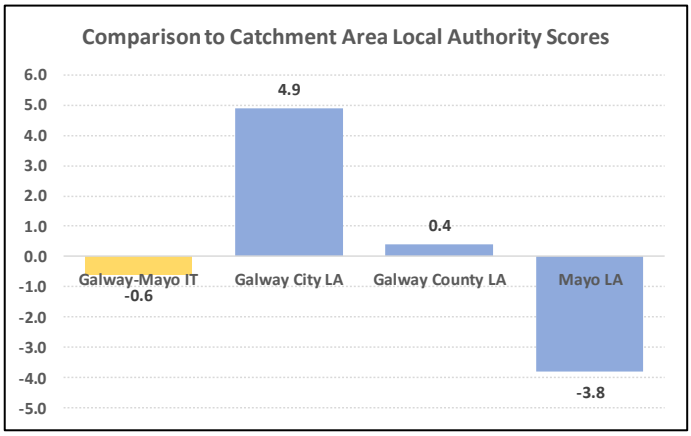


ISCED Field of Study	Score
(0488) Interdisciplinary business, administration & law	2.3
(0413) Management and administration	1.9
(0720) Manufacturing and processing n.e.c.	1.9
(0211) Audio-visual techniques and media production	1.0
(0611) Computer use	0.6
.....	.....
(0610) Information and Communication Technologies n.e.c.	-2.6
(0923) Social work and counselling	-2.8
(0913) Nursing and midwifery	-3.2
(0416) Wholesale and retail sales	-4.1
(0232) Literature and linguistics	-4.4

Enrolments based on Small Area Data:

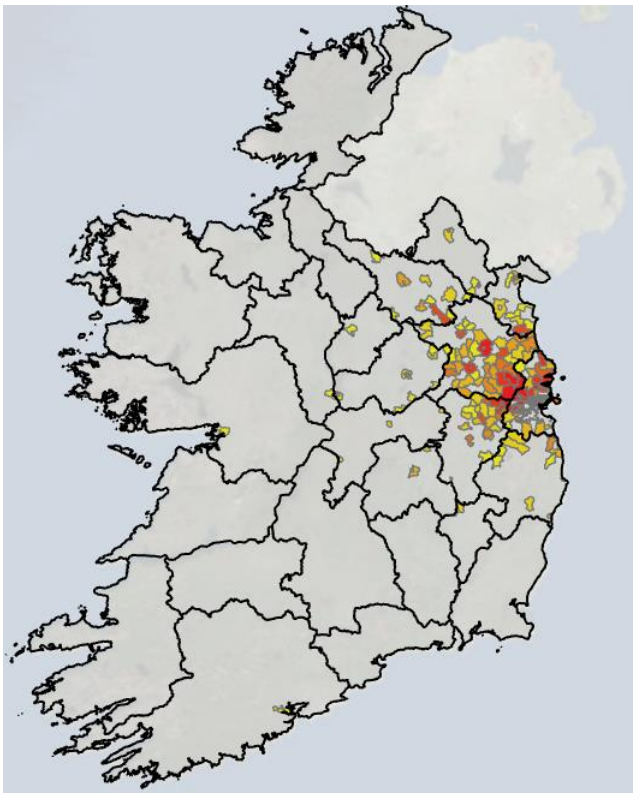
% Disadvantaged: **12%**

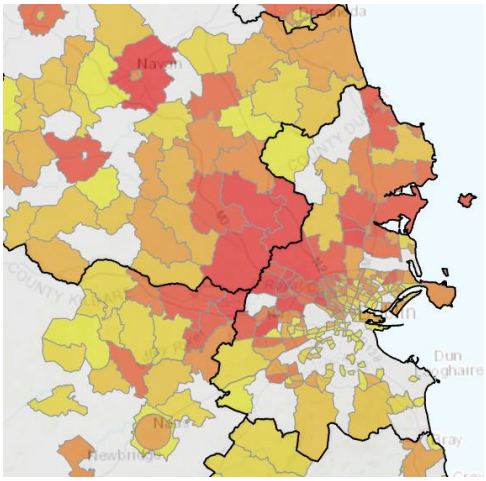
% Affluent: **8%**

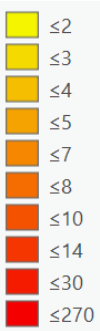


The mean distance from GMIT students home addresses to the college is **90km (median 78km)**, the mean travel time from home addresses to the college is **72 minutes**.

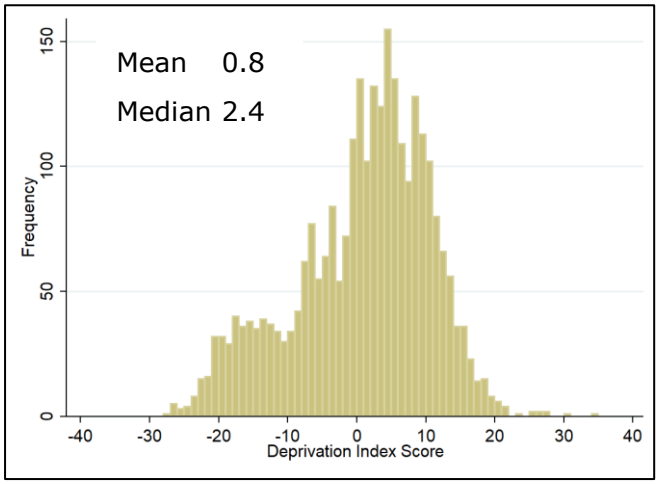
Institute of Technology Blanchardstown (ITB)







The ED maps above show that ITB enrolments mainly come from west and north Dublin, Meath and north Kildare, with relatively few enrolments from elsewhere in the Country.

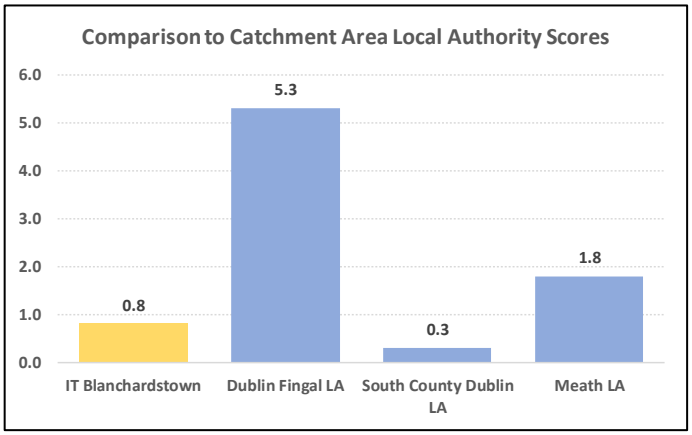


ISCED Field of Study	Score
(0223) Philosophy and ethics	3.4
(0812) Horticulture	3.3
(0612) Database and network design and administration	2.4
(0610) Information and Communication Technologies n.e.c.	2.1
(0710) Engineering and engineering trades n.e.c.	1.4
.....	.....
(1014) Sports	0.4
(0922) Child care and youth services	0.2
(0410) Business and administration n.e.c.	0.1
(0923) Social work and counselling	-0.5
(0310) Social and behavioural sciences n.e.c.	-2.0

Enrolments based on Small Area Data:

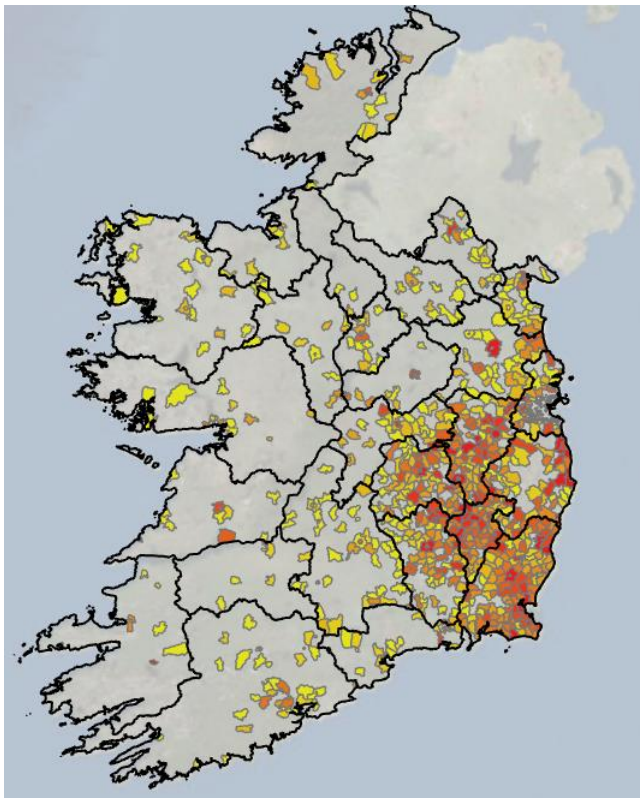
% Disadvantaged: **16%**

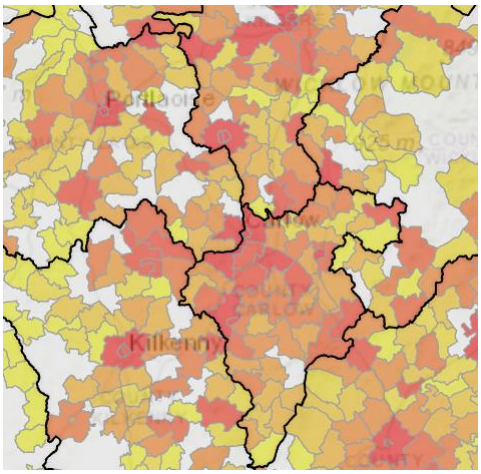
% Affluent: **16%**

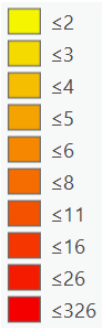


The mean distance from ITB students home addresses to the college is **27km (median 17km)**, the mean travel time from home addresses to the college is **28 minutes**.

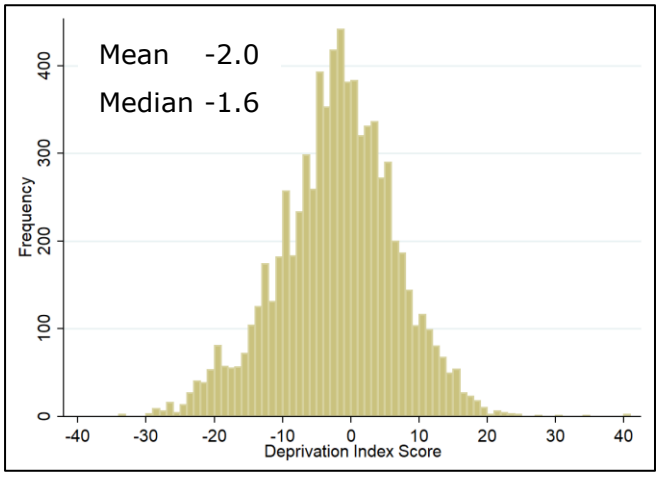
Institute of Technology Carlow (ITC)



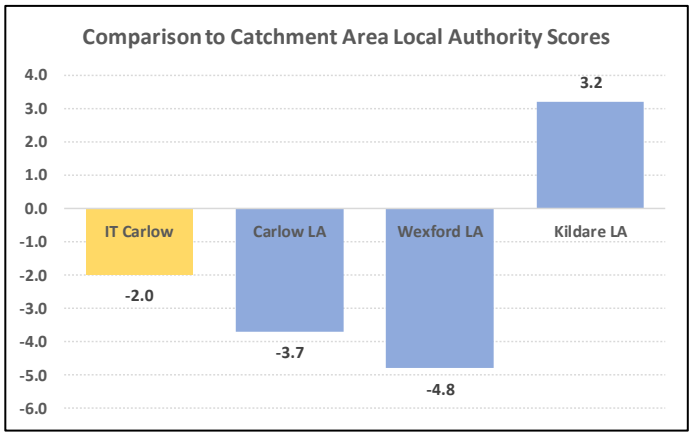




The ED maps above show that ITC enrolments are widespread in the south east, in Counties Carlow, Wexford, Kildare, Kilkenny, Laois and Wicklow, with pockets of enrolments from elsewhere in the Country.



ISCED Field of Study	Score
(0416) Wholesale and retail sales	2.2
(0716) Motor vehicles, ships and aircraft	1.8
(0313) Psychology	1.2
(0710) Engineering and engineering trades n.e.c.	-0.1
(1032) Protection of persons and property	-0.2
.....	.....
(0610) Information and Communication Technologies n.e.c.	-4.1
(0314) Sociology and cultural studies	-5.1
(0210) Arts n.e.c.	-5.9
(0221) Religion and theology	-6.0
(0220) Humanities (except languages) n.e.c.	-6.2



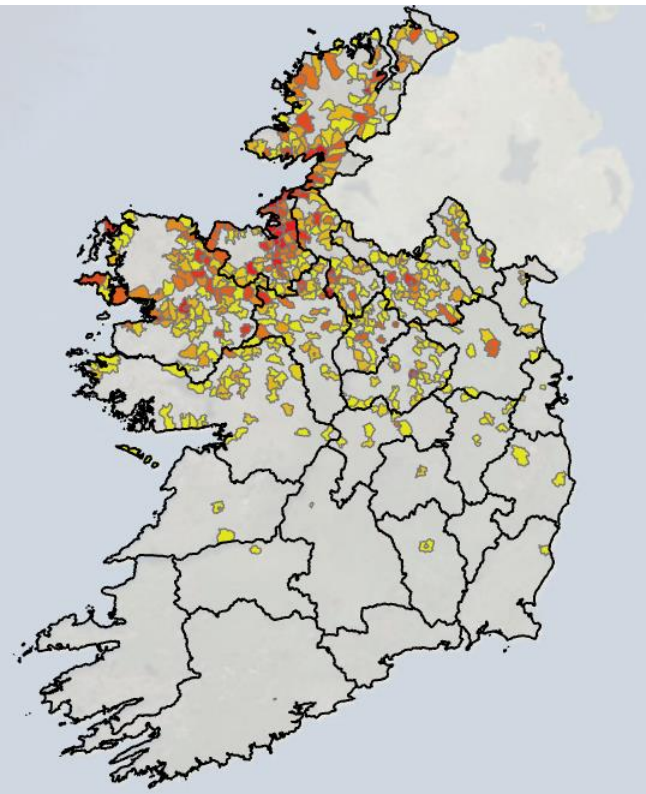
Enrolments based on Small Area Data:

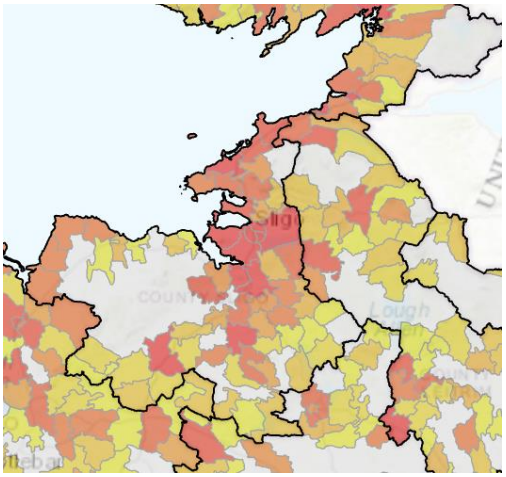
% Disadvantaged: **16%**

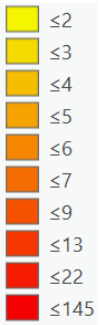
% Affluent: **7%**

The mean distance from ITC students home addresses to the college is **77km (median 62km)**, the mean travel time from home addresses to the college is **65 minutes**.

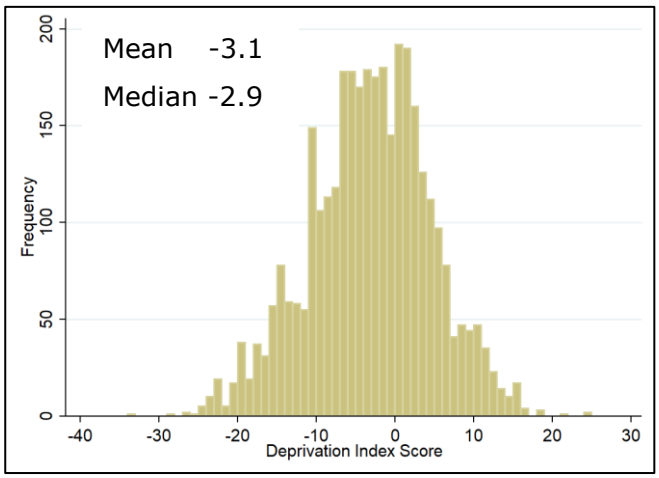
Institute of Technology Sligo (ITS)



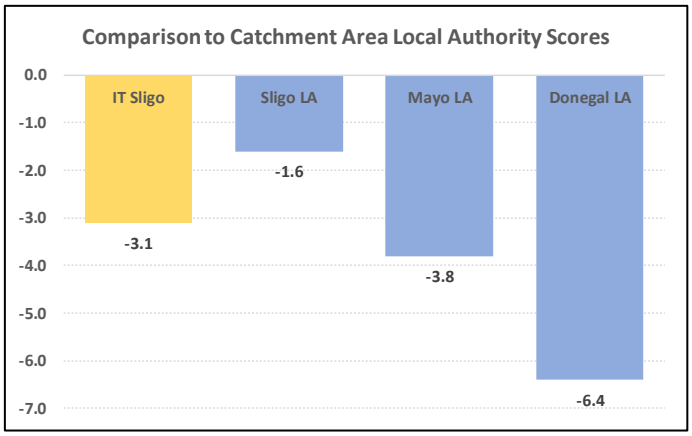




The ED maps above show that ITS enrolments are concentrated in Sligo, Mayo and Donegal and the north west in general, with very few enrolments from the south of the Country.



ISCED Field of Study	Score
(0220) Humanities (except languages) n.e.c.	0.1
(0613) Software and applications development/analysis	-0.3
(0222) History and archaeology	-0.6
(0232) Literature and linguistics	-1.0
(0212) Fashion, interior and industrial design	-1.7
.....	.....
(0721) Food processing	-4.1
(0922) Child care and youth services	-4.2
(0712) Environmental protection technology	-5.0
(0310) Social and behavioural sciences n.e.c.	-5.5
(0415) Secretarial and office work	-5.7



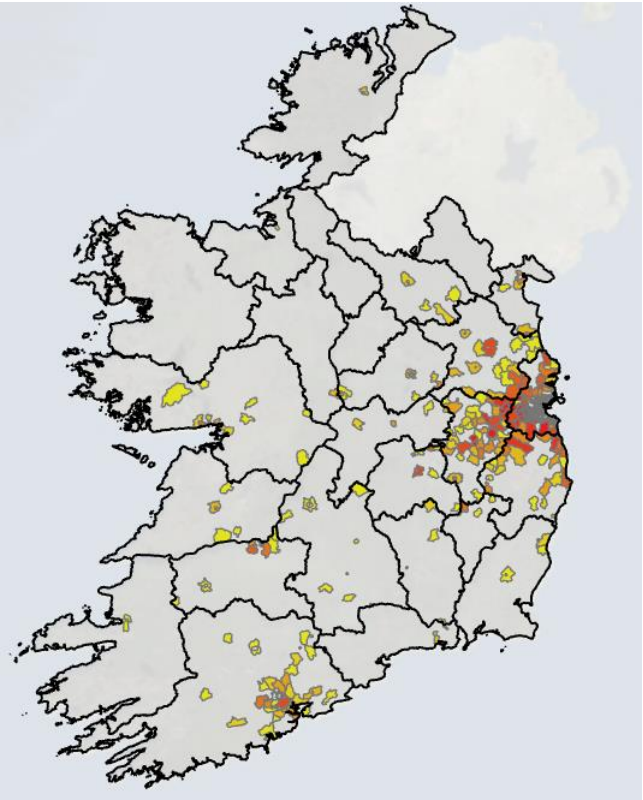
Enrolments based on Small Area Data:

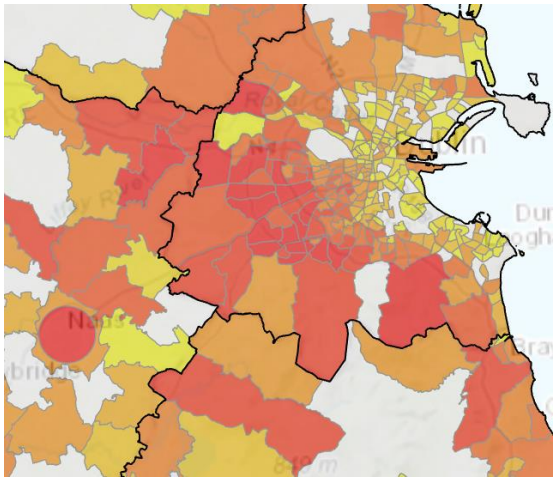
% Disadvantaged: **19%**

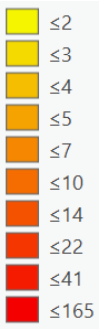
% Affluent: **5%**

The mean distance from ITS students home addresses to the college is **81km (median 73km)**, the mean travel time from home addresses to the college is **71 minutes**.

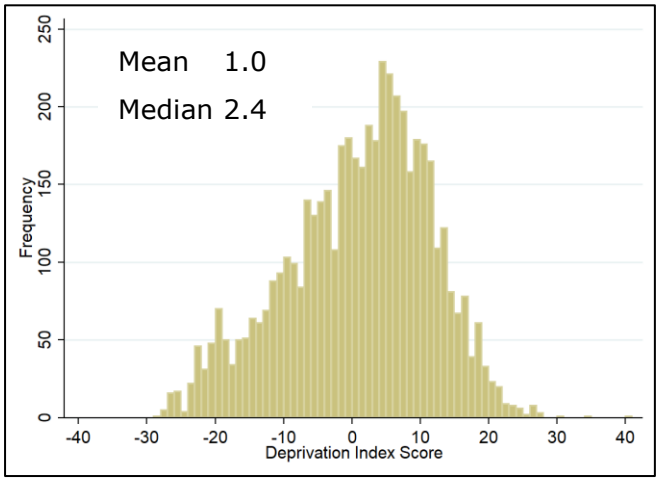
Institute of Technology Tallaght (ITTa)







The ED maps above show that ITTa enrolments are concentrated as expected around south and west Dublin and Kildare. There are also enrolments from the Cork area.

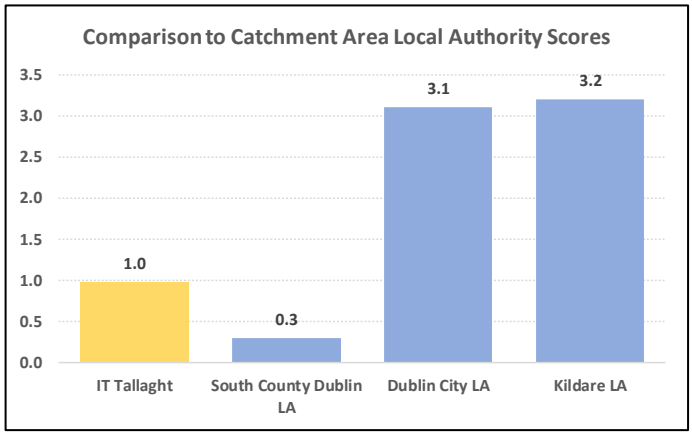


ISCED Field of Study	Score
(0613) Software and applications development/analysis	8.8
(0417) Work skills	6.3
(0011) Basic programmes and qualifications	5.6
(0410) Business and administration n.e.c.	5.2
(0721) Food processing	4.1
.....	.....
(0411) Accounting and taxation	-1.1
(0512) Biochemistry	-1.2
(0612) Database and network design and administration	-1.6
(1015) Travel, tourism and leisure	-1.7
(0531) Chemistry	-2.1

Enrolments based on Small Area Data:

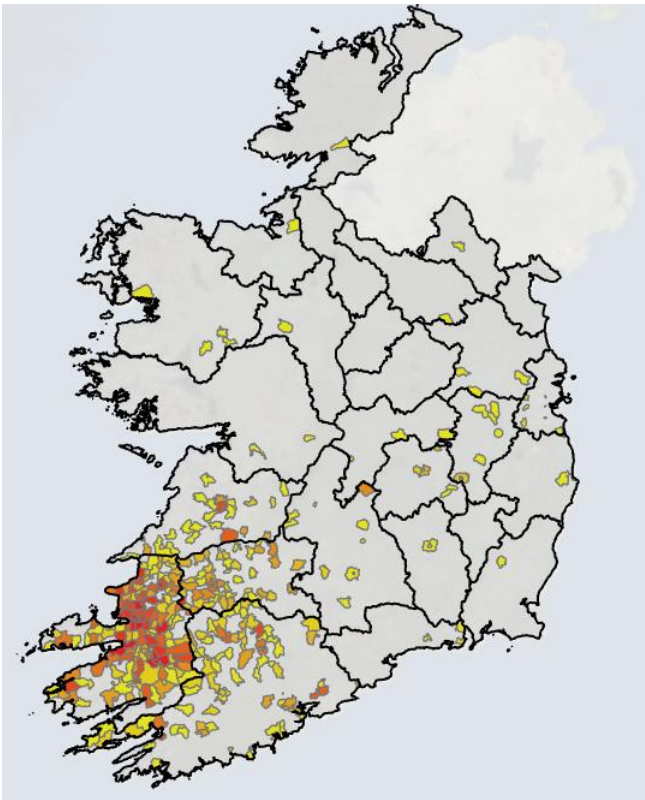
% Disadvantaged: **16%**

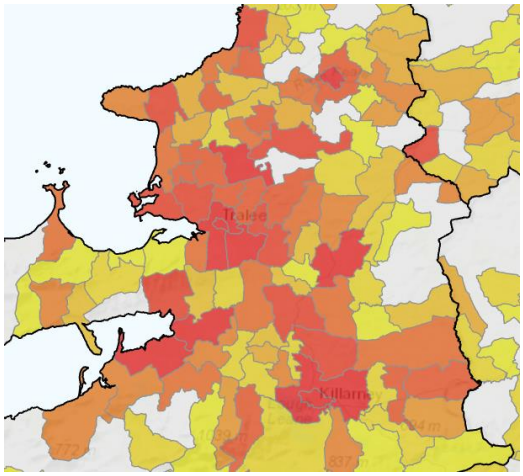
% Affluent: **20%**

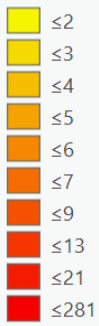


The mean distance from ITTa students home addresses to the college is **40km (median 12km)**, the mean travel time from home addresses to the college is **34 minutes**.

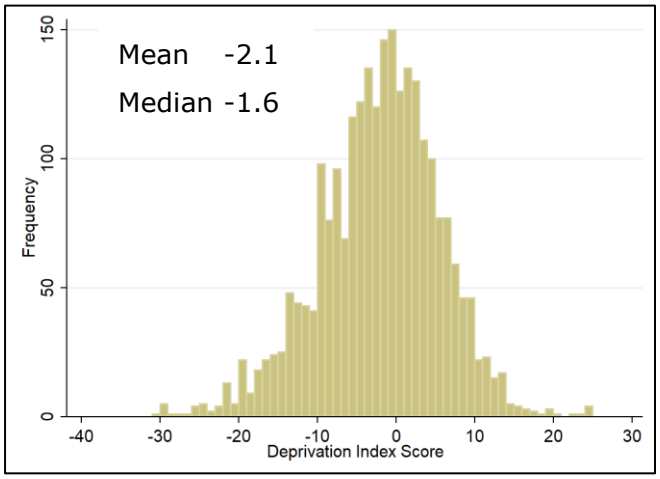
Institute of Technology Tralee (ITTr)



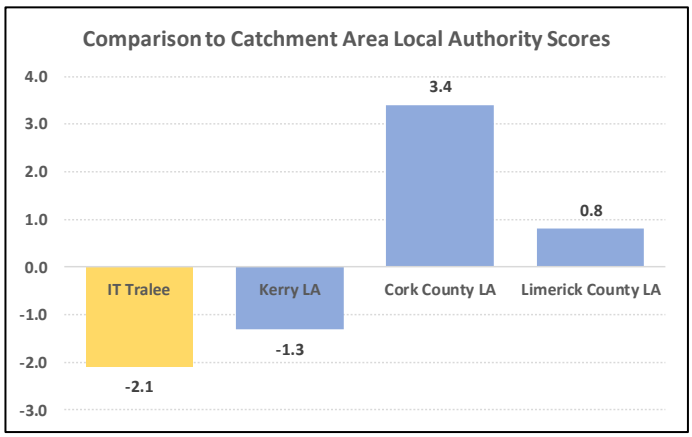




The ED maps above show that ITTr enrolments primarily come from Kerry, concentrated around Tralee and Killarney, also enrolments from north Cork, Limerick and Clare, relatively few from elsewhere.



ISCED Field of Study	Score
(0413) Management and administration	0.4
(0011) Basic programmes and qualifications	-0.4
(0111) Education science	-0.5
(1013) Hotel, restaurants and catering	-0.8
(0522) Natural environments and wildlife	-0.8
.....	.....
(0613) Software and applications development/analysis	-3.0
(0610) Information and Communication Technologies n.e.c.	-3.5
(0414) Marketing and advertising	-3.6
(0923) Social work and counselling	-3.8
(1015) Travel, tourism and leisure	-4.3



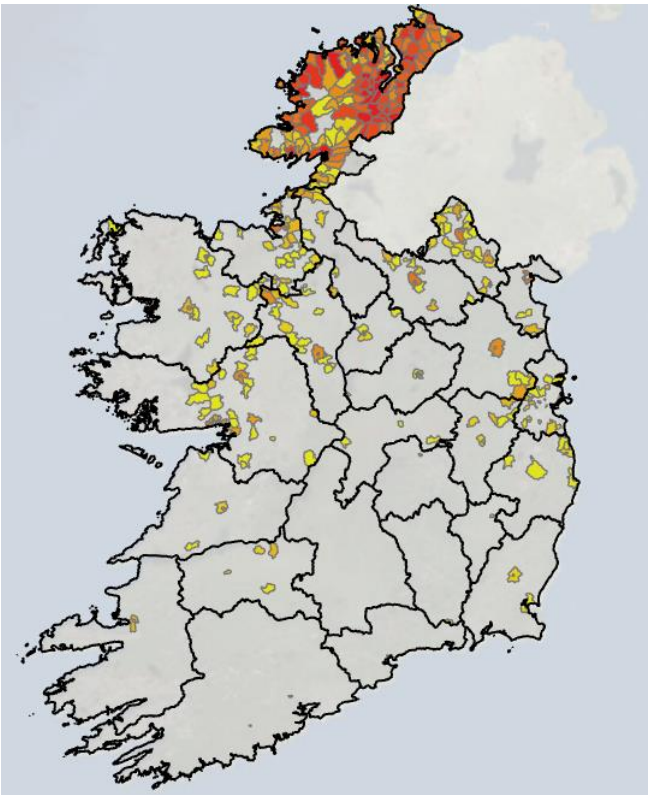
Enrolments based on Small Area Data:

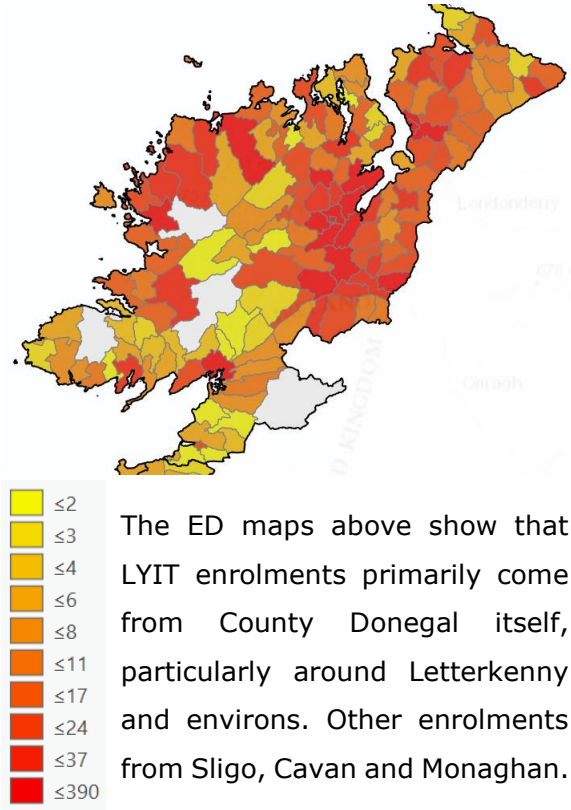
% Disadvantaged: **14%**

% Affluent: **4%**

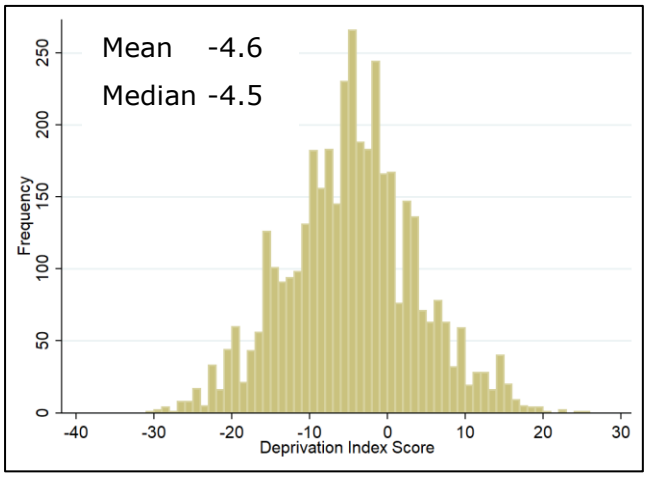
The mean distance from ITTr students home addresses to the college is **79km (median 39km)**, the mean travel time from home addresses to the college is **68 minutes**.

Letterkenny Institute of Technology (LYIT)

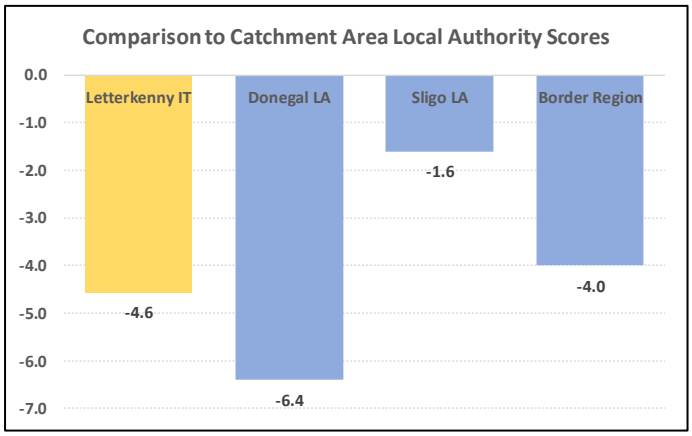




The ED maps above show that LYIT enrolments primarily come from County Donegal itself, particularly around Letterkenny and environs. Other enrolments from Sligo, Cavan and Monaghan.



ISCED Field of Study	Score
(0110) Education n.e.c.	-0.2
(0413) Management and administration	-1.6
(0512) Biochemistry	-2.2
(0410) Business and administration n.e.c.	-2.7
(0612) Database and network design and administration	-2.8
.....	.....
(0521) Environmental sciences	-6.5
(0011) Basic programmes and qualifications	-7.1
(1013) Hotel, restaurants and catering	-7.4
(0730) Architecture and construction n.e.c.	-7.8
(0731) Architecture and town planning	-8.6



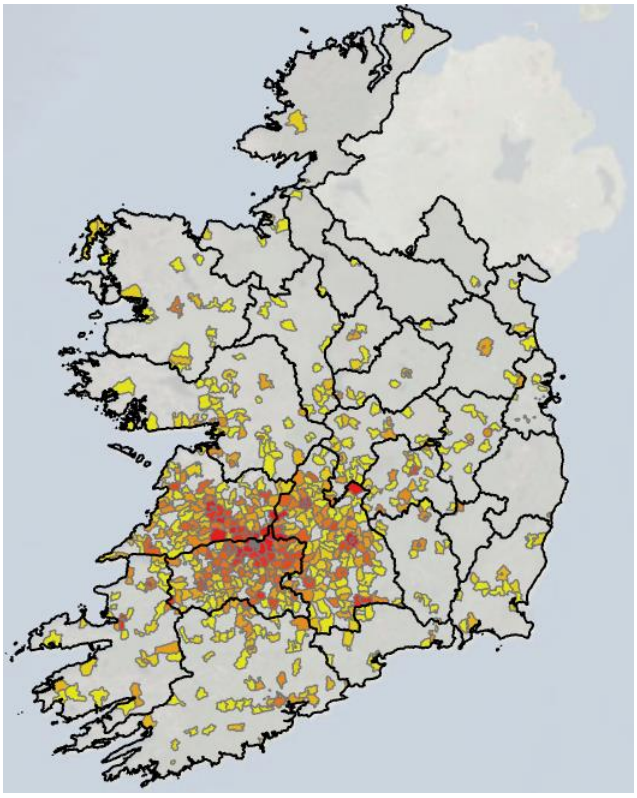
Enrolments based on Small Area Data:

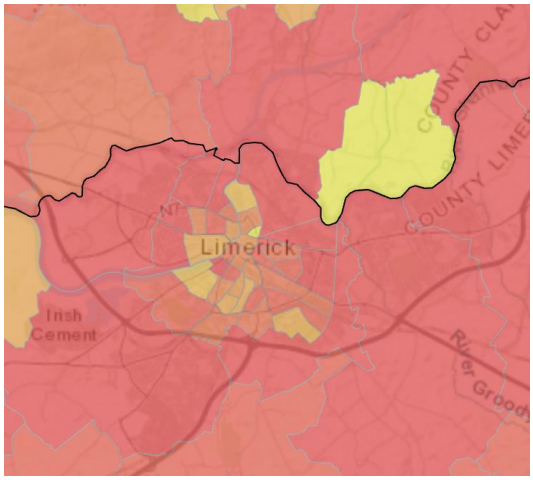
% Disadvantaged: **24%**

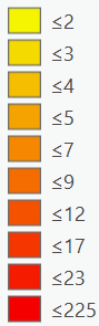
% Affluent: **4%**

The mean distance from LYIT students home addresses to the college is **82km (41km median)**, the mean travel time from home addresses to the college is **70 minutes**.

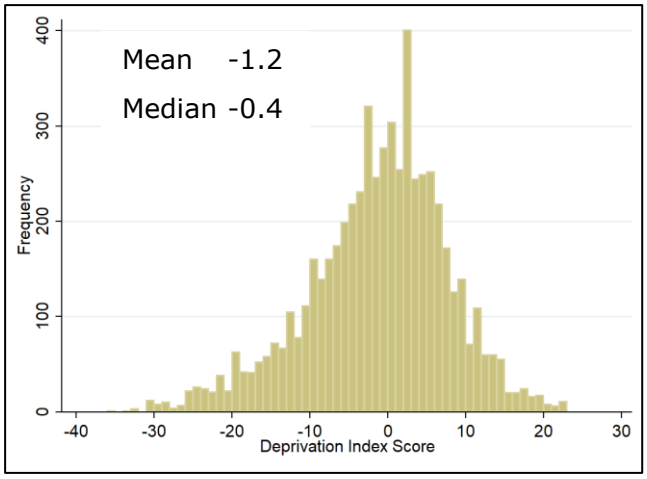
Limerick Institute of Technology (LIT)



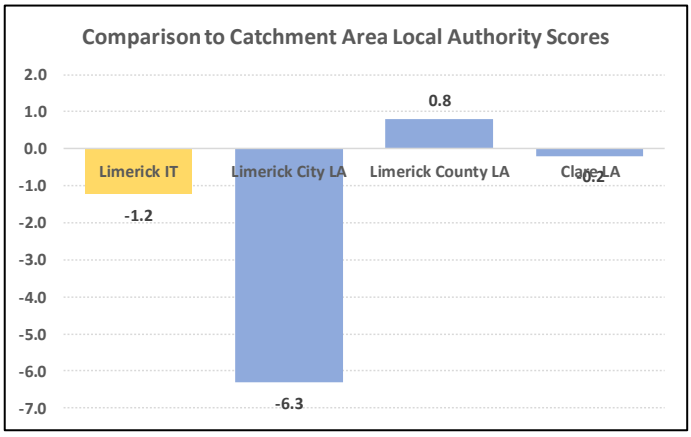




The ED maps above show that LIT enrolments are concentrated in Limerick, Clare and Tipperary, particularly around Limerick City, although some inner-city areas have lower levels of enrolment.



ISCED Field of Study	Score
(0214) Handicrafts	1.4
(0111) Education science	0.9
(0713) Electricity and energy	0.9
(0310) Social and behavioural sciences n.e.c.	0.8
(1022) Occupational health and safety	0.7
.....	.....
(0410) Business and administration n.e.c.	-2.8
(0923) Social work and counselling	-3.3
(0031) Personal skills and development	-4.2
(0314) Sociology and cultural studies	-4.4
(1013) Hotel, restaurants and catering	-6.2



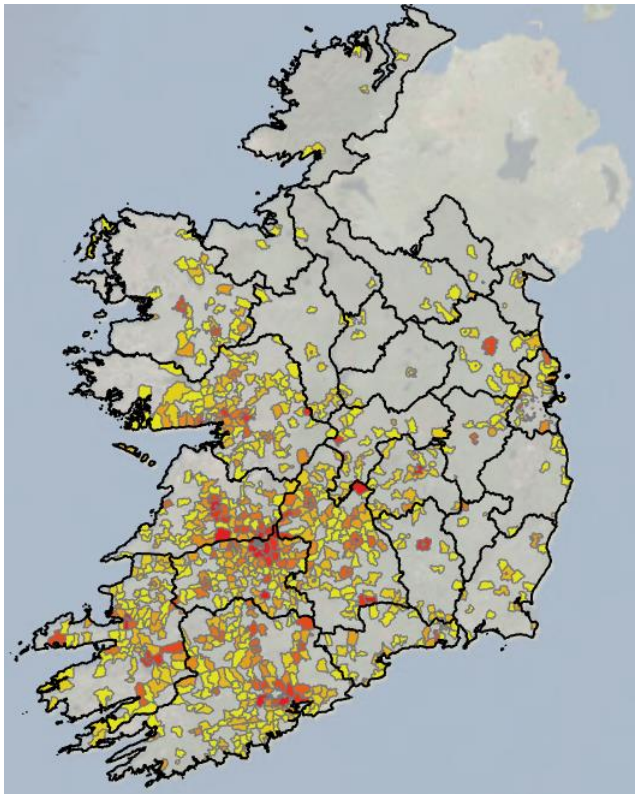
Enrolments based on Small Area Data:

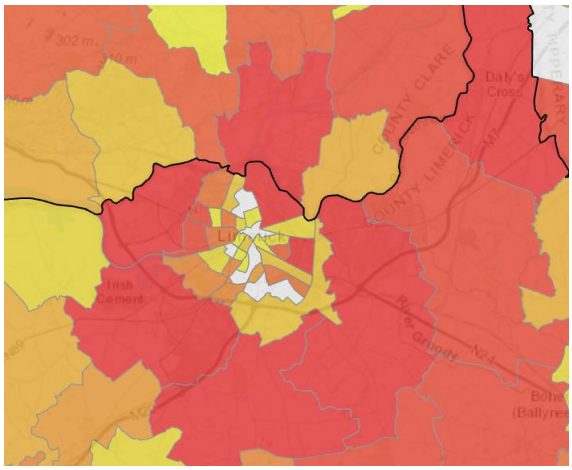
% Disadvantaged: **15%**

% Affluent: **8%**

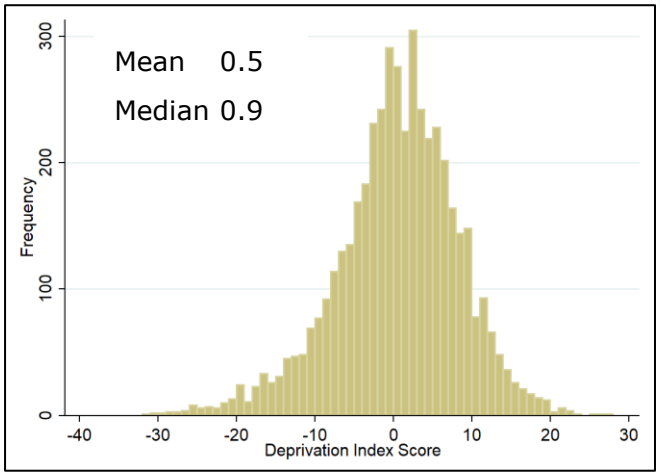
The mean distance from LIT students home addresses to the college is **63km (45km median)**, the mean travel time from home addresses to the college is **53 minutes**.

Mary Immaculate College (Mary I)





The ED maps above show that Mary I enrolments are relatively well spread over Counties Limerick, Clare, Cork, Kerry, Tipperary and Galway. In Limerick City itself, some inner-city areas have low enrolment numbers.

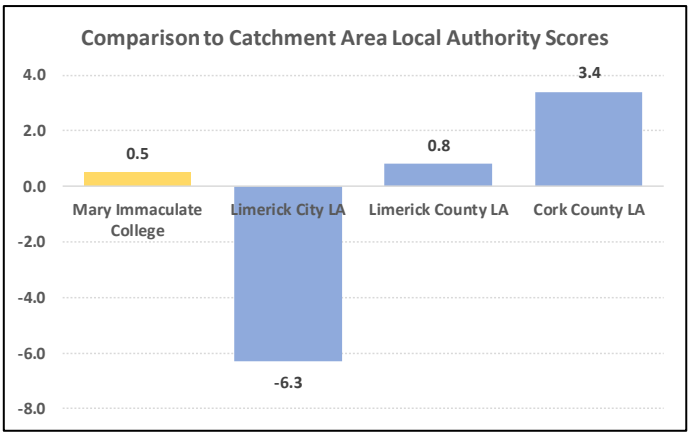


ISCED Field of Study	Score
(0110) Education n.e.c.	2.8
(0221) Religion and theology	2.5
(0113) Teacher training without subject specialization	1.5
(0215) Music and performing arts	0.6
(0114) Teacher training with subject specialization	0.2
.....	.....
(0112) Training for pre-school teachers	0.1
(0210) Arts n.e.c.	-0.9
(0232) Literature and linguistics	-2.8
(0011) Basic programmes and qualifications	-4.4

Enrolments based on Small Area Data:

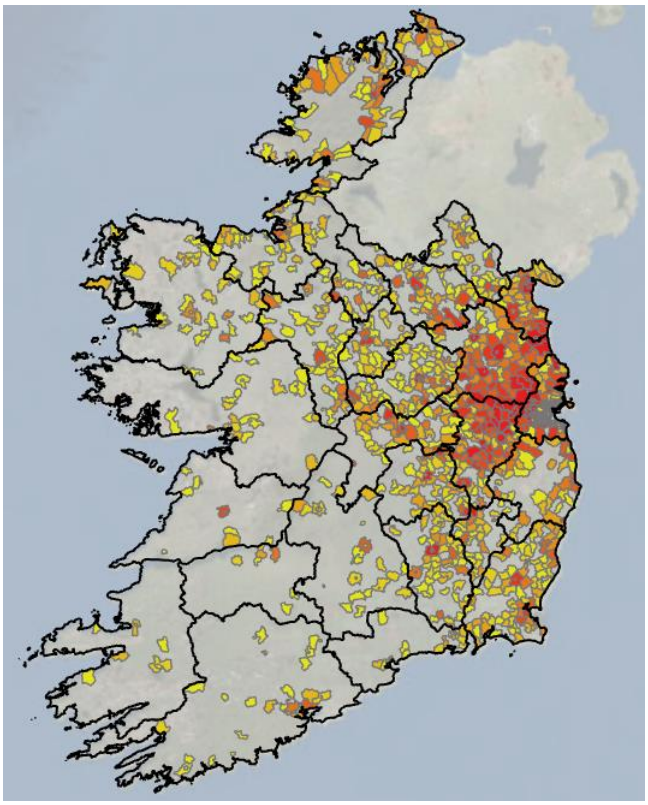
% Disadvantaged: **9%**

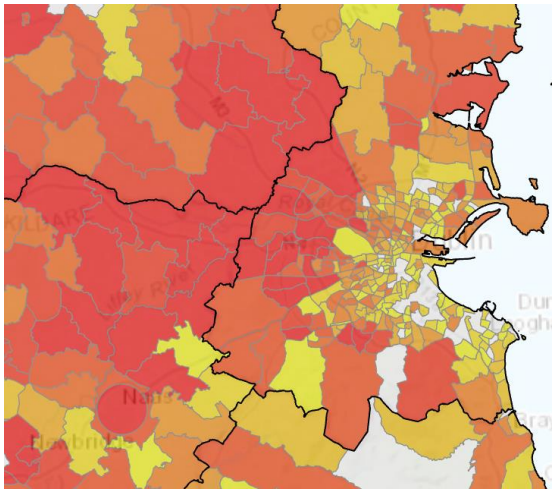
% Affluent: **9%**

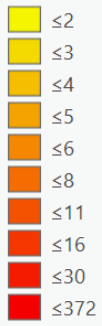


The mean distance from Mary I students home addresses to the college is **100km (97km median)**, the mean travel time from home addresses to the college is **79 minutes**.

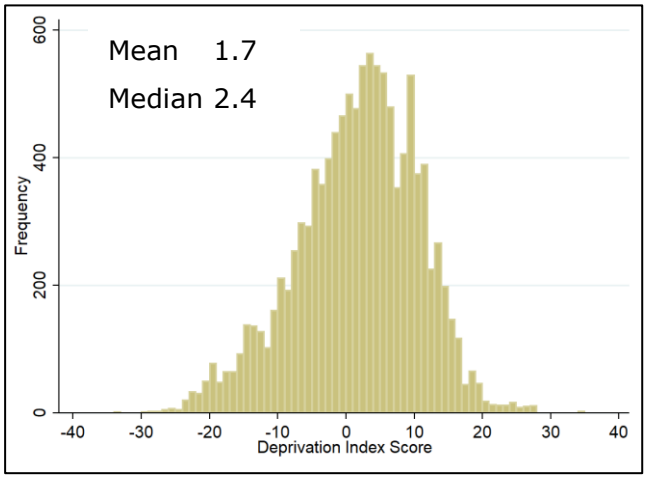
Maynooth University (MU)



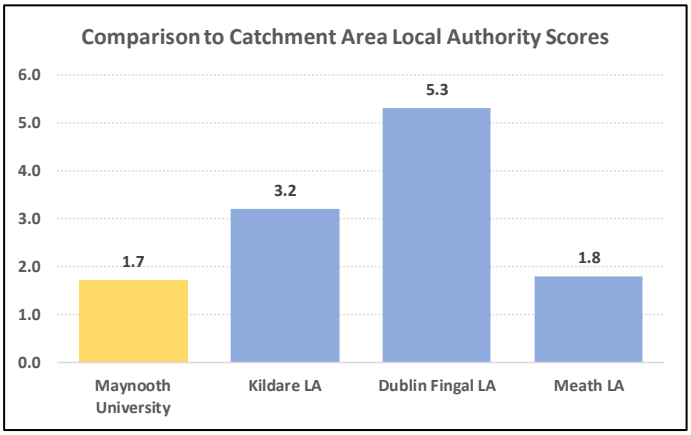




The ED maps above show that MU enrolments are concentrated in Counties Kildare and Meath, but enrolments overall are widely dispersed around the east and midlands of the Country.



ISCED Field of Study	Score
(0915) Therapy and rehabilitation	4.9
(0223) Philosophy and ethics	3.8
(0488) Interdisciplinary programmes business, admin & law	3.7
(0212) Fashion, interior and industrial design	3.7
(0413) Management and administration	3.7
.....	.....
(0311) Economics	0.2
(0923) Social work and counselling	0.2
(0312) Political sciences and civics	0.0
(0510) Biological and related sciences n.e.c.	-1.9
(0922) Child care and youth services	-5.2



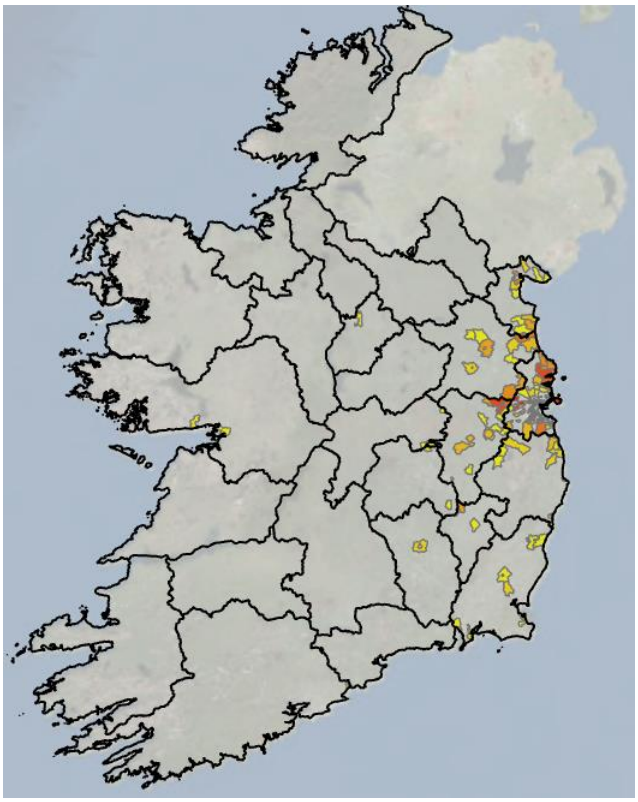
Enrolments based on Small Area Data:

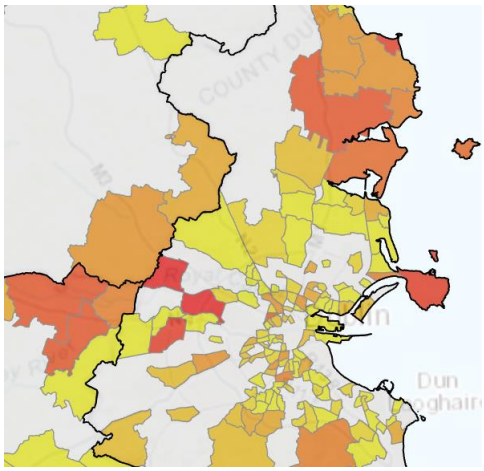
% Disadvantaged: **10%**

% Affluent: **17%**

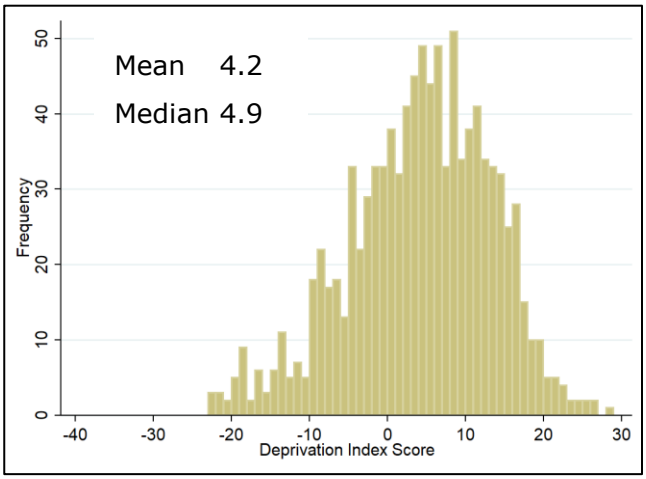
The mean distance from MU students home addresses to the college is **69km (39km median)**, the mean travel time from home addresses to the college is **58 minutes**.

National College of Art and Design (NCAD)





The Electoral Division maps above show that NCAD enrolments primarily come from the greater Dublin region, with relatively few enrolments from elsewhere in the Country.

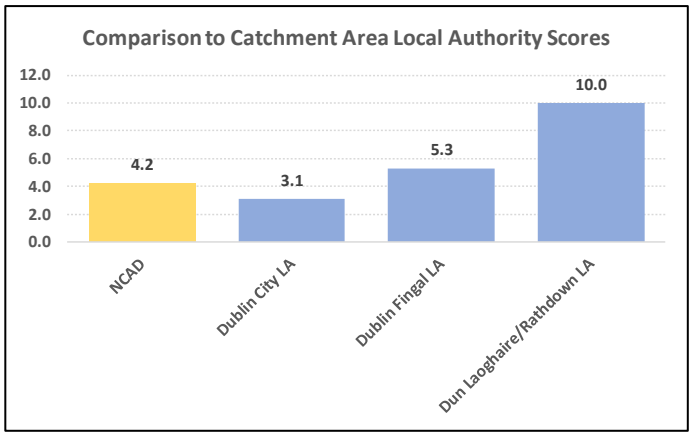


ISCED Field of Study	Score
(0613) Software and applications development/analysis	7.9
(0210) Arts n.e.c.	5.3
(0211) Audio-visual techniques and media production	4.9
(0212) Fashion, interior and industrial design	4.6
(0213) Fine arts	3.9
(0114) Teacher training with subject specialization	1.2

Enrolments based on Small Area Data:

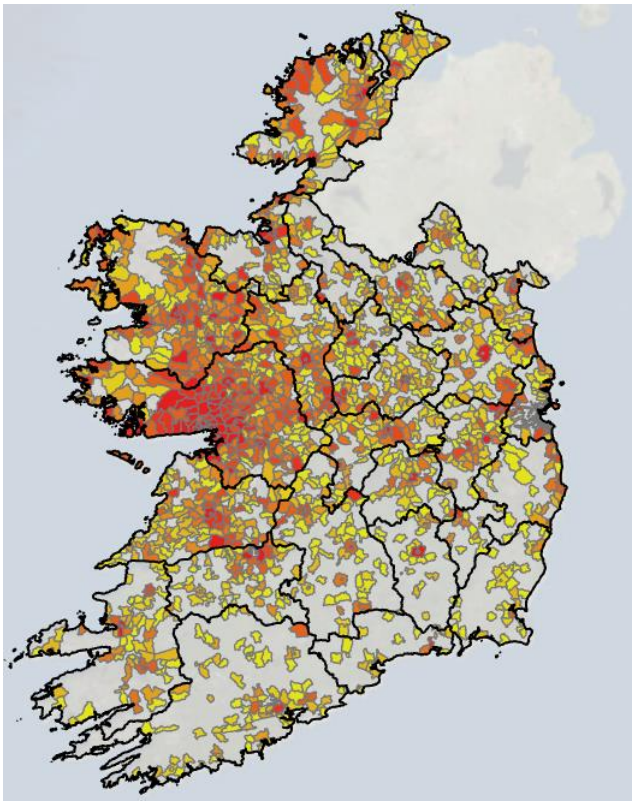
% Disadvantaged: **7%**

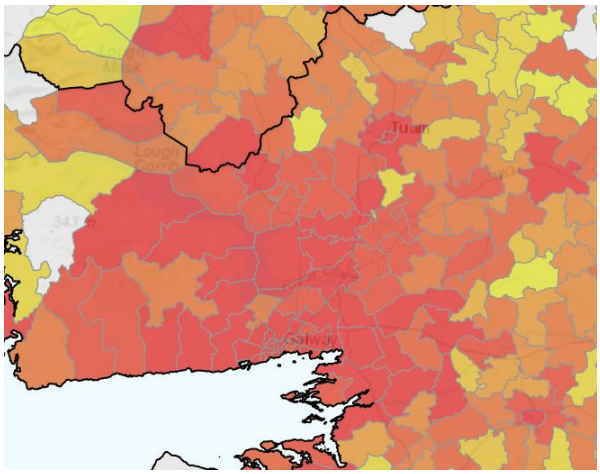
% Affluent: **29%**

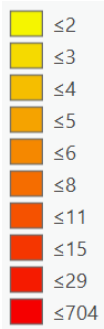


The mean distance from NCAD students home addresses to the college is **49km (17km median)**, the mean travel time from home addresses to the college is **44 minutes**.

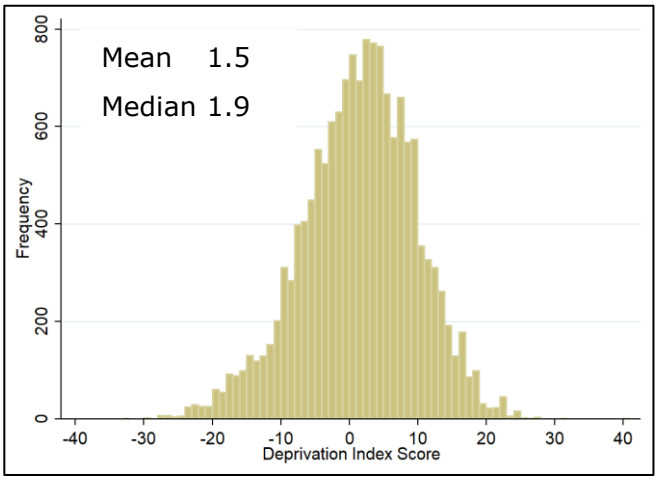
National University of Ireland Galway (NUIG)



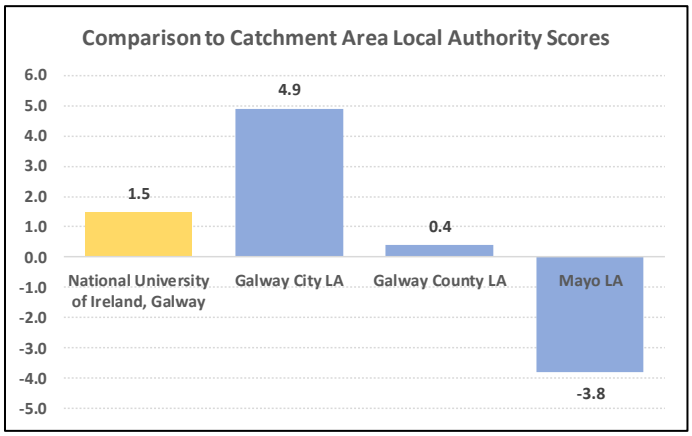




The ED maps above show that NUIG enrolments come from most parts of the Country, with concentrations in the west, mid-west, north west and midlands, particularly around Galway.



ISCED Field of Study	Score
(0914) Medical diagnostic and treatment technology	5.3
(0912) Medicine	4.4
(0231) Language acquisition	4.4
(0111) Education science	4.1
(0113) Teacher training without subject specialization	3.9
.....	.....
(0713) Electricity and energy	-0.3
(0311) Economics	-0.3
(0114) Teacher training with subject specialization	-0.6
(0922) Child care and youth services	-1.3
(0211) Audio-visual techniques and media production	-2.8



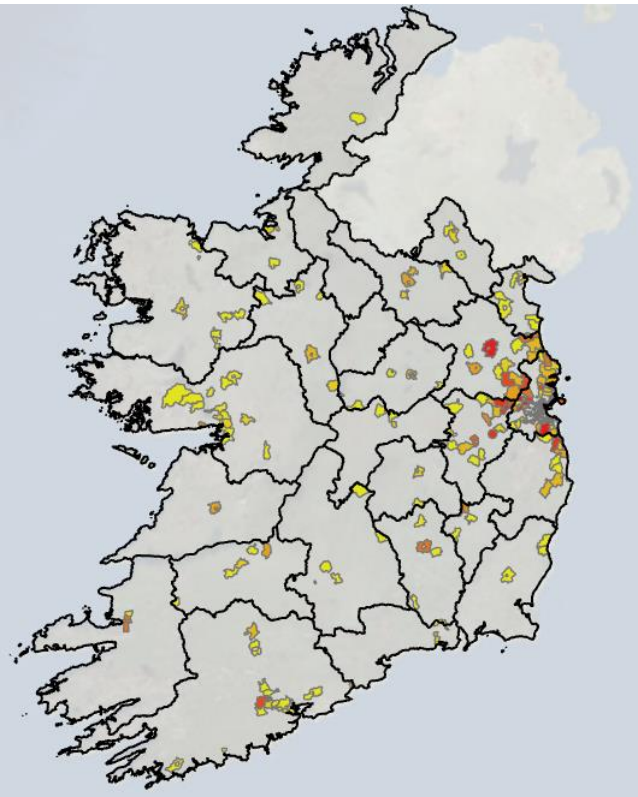
Enrolments based on Small Area Data:

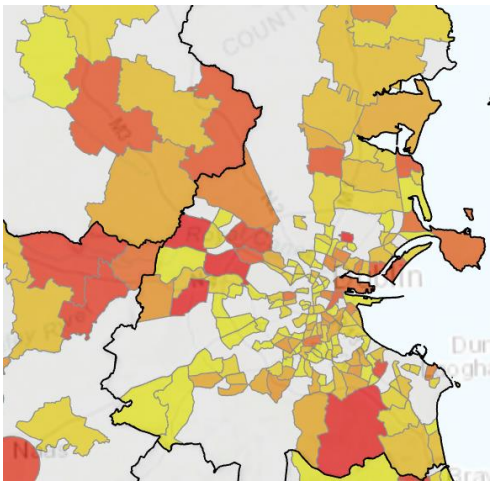
% Disadvantaged: **8%**

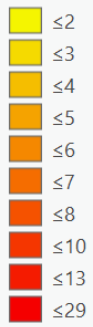
% Affluent: **14%**

The mean distance from NUIG students home addresses to the college is **108km (94km median)**, the mean travel time from home addresses to the college is **83 minutes**.

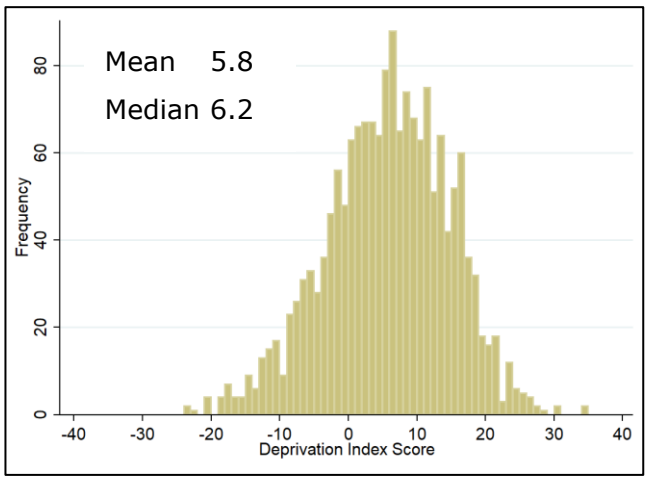
Royal College of Surgeons (RCSI)







The ED maps above show that RCSI enrolments primarily come from the greater Dublin region, with other enrolments dispersed around the Country - Galway and Cork in particular.

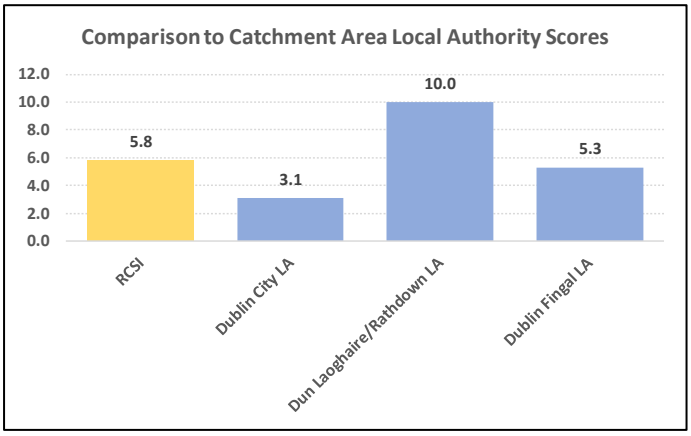


ISCED Field of Study	Score
(0912) Medicine	8.4
(0910) Health n.e.c.	6.9
(0915) Therapy and rehabilitation	5.7
(0923) Social work and counselling	5.6
(0916) Pharmacy	4.0
(0922) Child care and youth services	3.8
(0913) Nursing and midwifery	3.1

Enrolments based on Small Area Data:

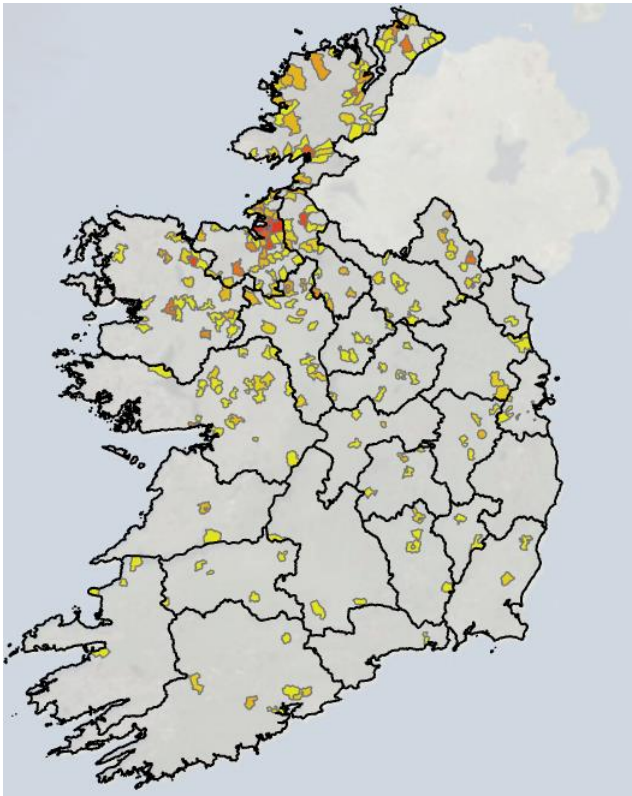
% Disadvantaged: **5%**

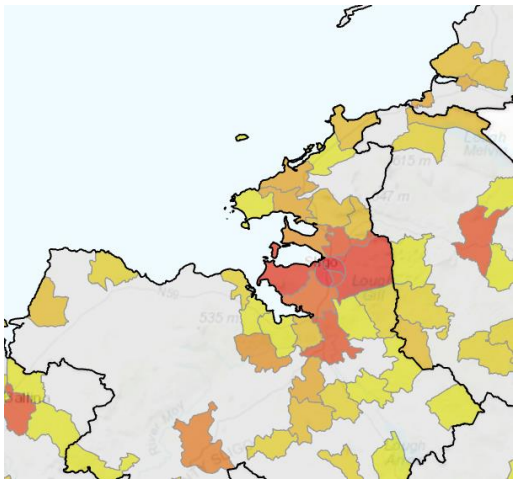
% Affluent: **33%**

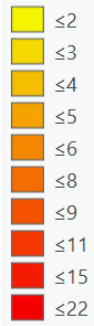


The mean distance from RCSI students home addresses to the college is **82km (29km median)**, the mean travel time from home addresses to the college is **67 minutes**.

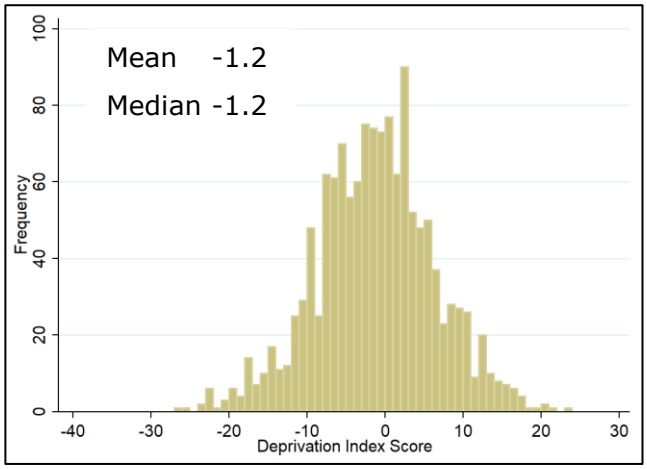
St. Angela's College of Home Economics (St. Angela's)



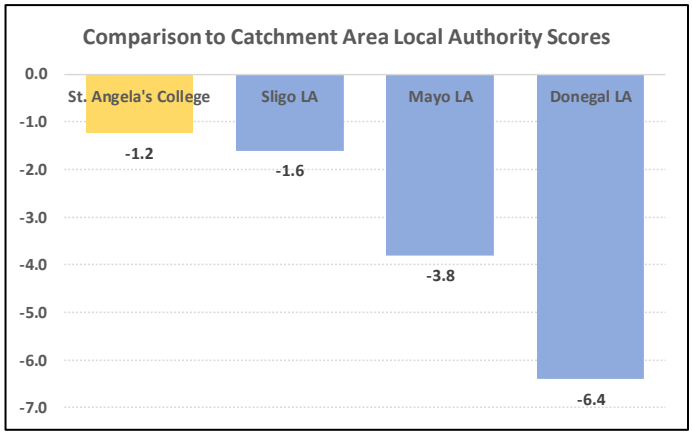




The Electoral Division maps above show that St. Angela's enrolments primarily come from the north west region, particularly Sligo, Donegal and Mayo, with other enrolments dispersed around the Country.



ISCED Field of Study	Score
(0031) Personal skills and development	3.7
(0413) Management and administration	0.6
(0421) Law	0.6
(0222) History and archaeology	0.2
(0221) Religion and theology	-0.4
.....	.....
(0111) Education science	-1.6
(0910) Health n.e.c.	-1.7
(0210) Arts n.e.c.	-1.8
(0913) Nursing and midwifery	-1.8
(0721) Food processing	-2.0



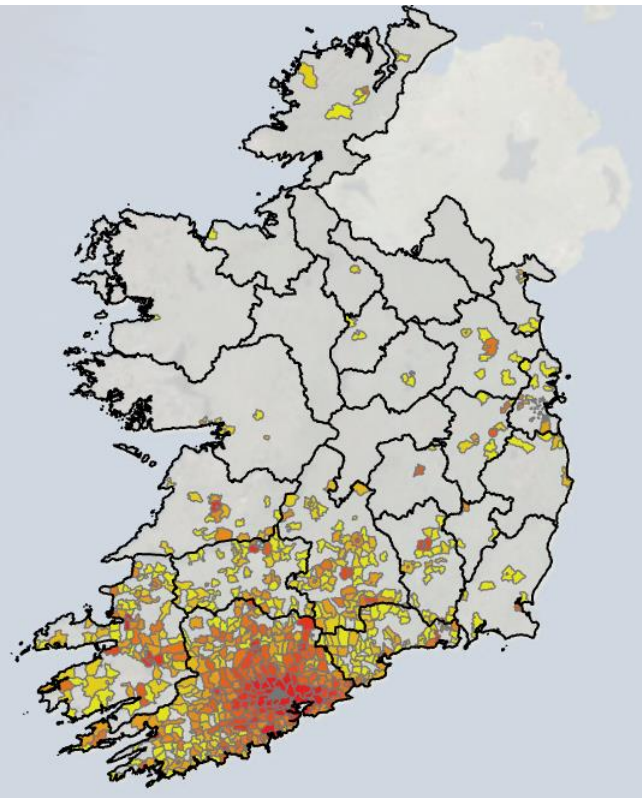
Enrolments based on Small Area Data:

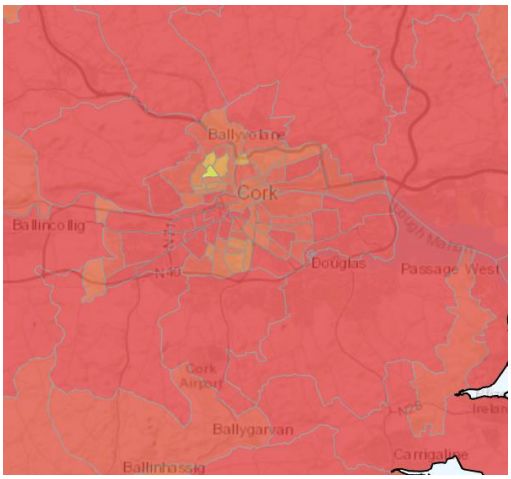
% Disadvantaged: **11%**

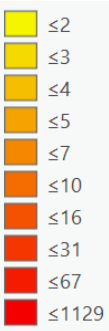
% Affluent: **7%**

The mean distance from St. Angela's College students home addresses to the college is **133km (119km median)**, the mean travel time from home addresses to the college is **112 minutes**.

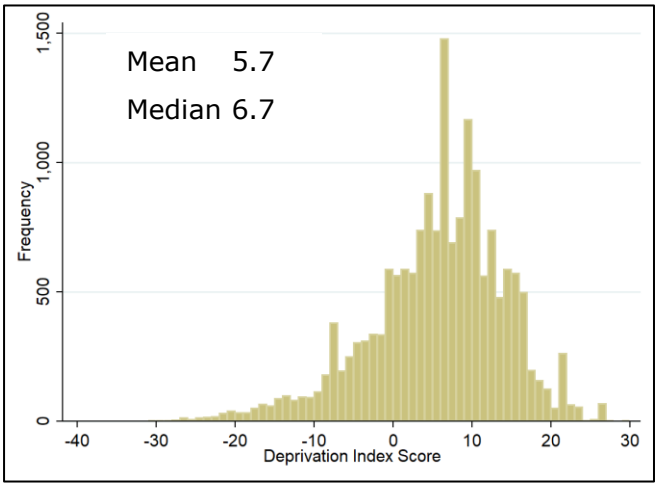
University College Cork (UCC)



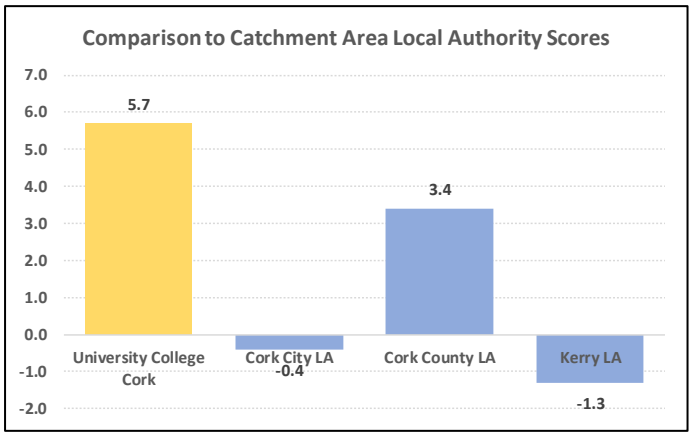




The ED maps above show that UCC enrolments are concentrated in the south west, particularly around Cork City, although a few inner-city areas have lower levels of enrolment (north city).



ISCED Field of Study	Score
(0912) Medicine	8.3
(0311) Economics	7.9
(0412) Finance, banking and insurance	7.9
(0732) Building and civil engineering	7.7
(0540) Mathematics and statistics n.e.c.	7.6
.....	.....
(0113) Teacher training without subject specialization	3.6
(0923) Social work and counselling	2.9
(0922) Child care and youth services	2.0
(0920) Welfare n.e.c.	1.0
(0819) Agriculture n.e.c.	-1.6



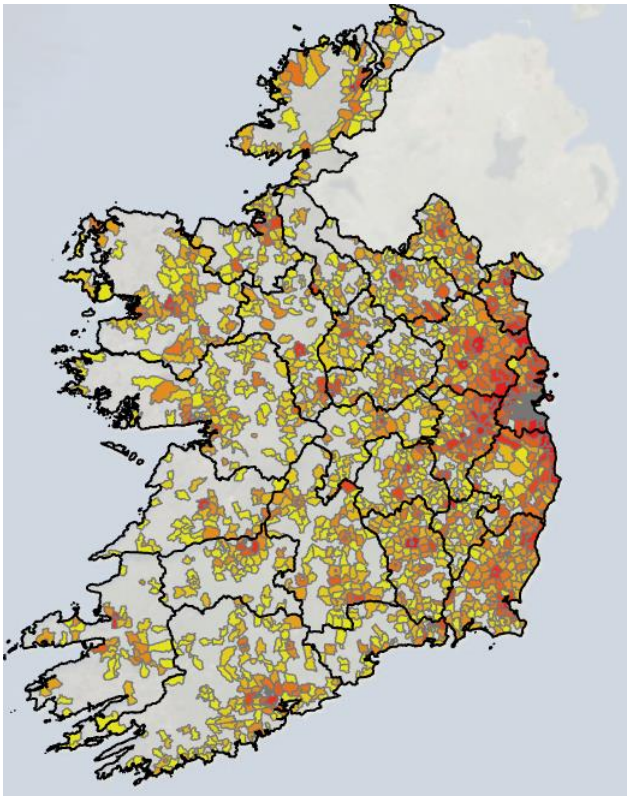
Enrolments based on Small Area Data:

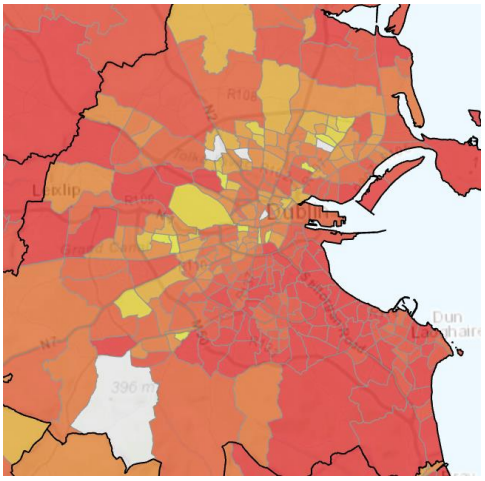
% Disadvantaged: **5%**

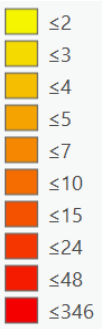
% Affluent: **31%**

The mean distance from UCC students home addresses to the college is **33km (8km median)**, the mean travel time from home addresses to the college is **31 minutes**.

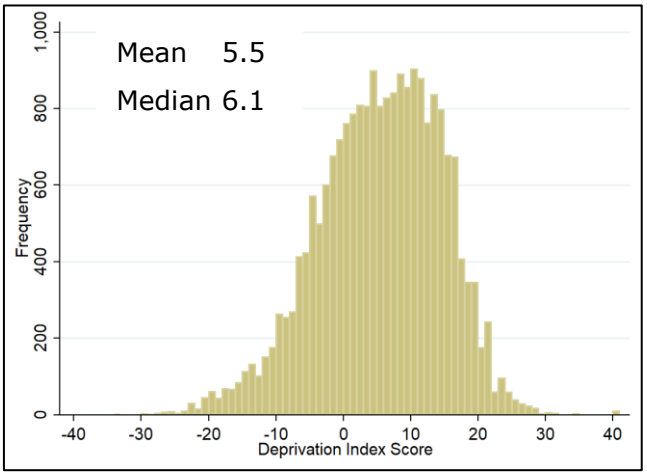
University College Dublin (UCD)



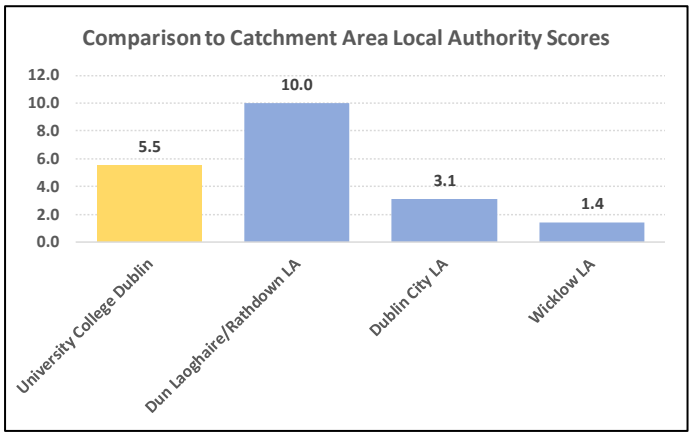




The ED maps above show that UCD enrolments come from across the Country but with a concentration in south Dublin. Certain areas of north Dublin City and south west Dublin have relatively few enrolments.



ISCED Field of Study	Score
(0220) Humanities (except languages) n.e.c.	10.0
(0414) Marketing and advertising	9.7
(0213) Fine arts	9.6
(0110) Education n.e.c.	9.3
(0713) Electricity and energy	8.3
.....	.....
(0811) Crop and livestock production	1.9
(0521) Environmental sciences	1.8
(0114) Teacher training with subject specialization	1.3
(0113) Teacher training without subject specialization	1.3
(0888) Interdisciplinary agri, forestry, fisheries and vet.	1.1



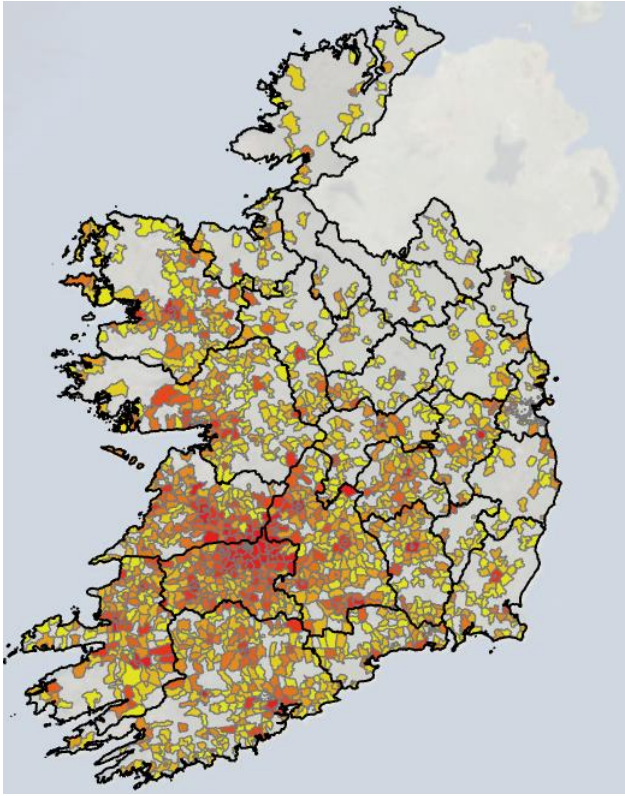
Enrolments based on Small Area Data:

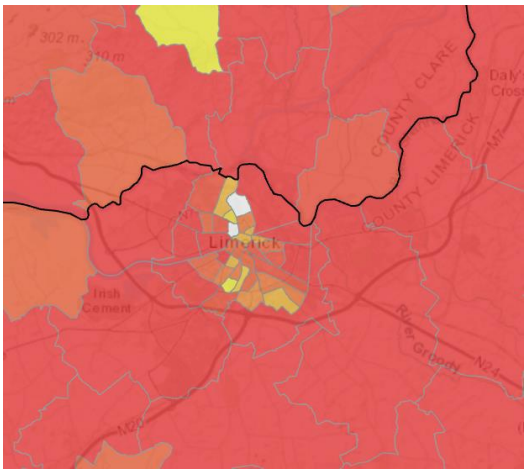
% Disadvantaged: **5%**

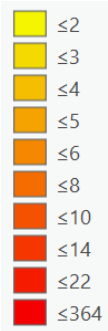
% Affluent: **34%**

The mean distance from UCD students home addresses to the college is **77km (33km median)**, the mean travel time from home addresses to the college is **61 minutes**.

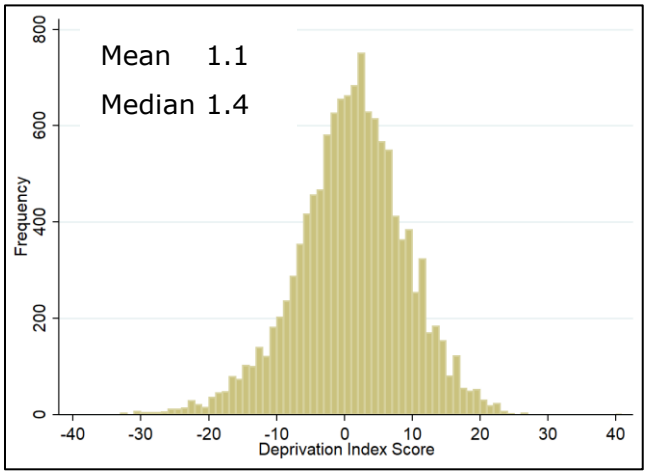
University of Limerick (UL)



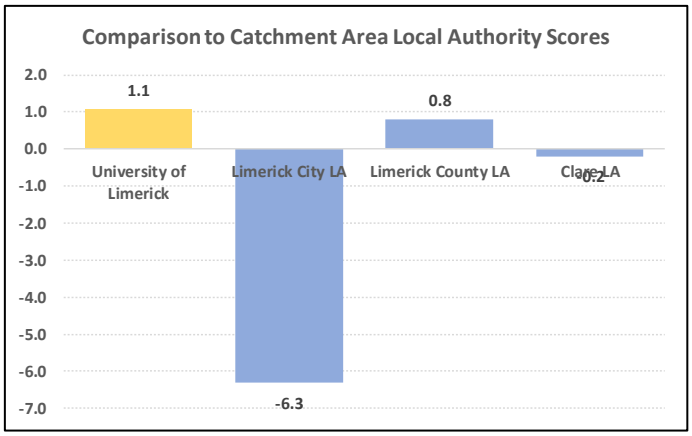




The ED maps above show that UL enrolments are dispersed around the Country but with a concentration in the mid-west, particularly in Limerick and Clare. In Limerick City, there are some areas with relatively few enrolments.



ISCED Field of Study	Score
(0113) Teacher training without subject specialization	7.7
(0711) Chemical engineering and processes	5.2
(0414) Marketing and advertising	4.4
(0912) Medicine	4.1
(0111) Education science	3.3
.....	.....
(0222) History and archaeology	-0.7
(0923) Social work and counselling	-0.8
(0521) Environmental sciences	-0.9
(0215) Music and performing arts	-1.1
(0011) Basic programmes and qualifications	-3.8



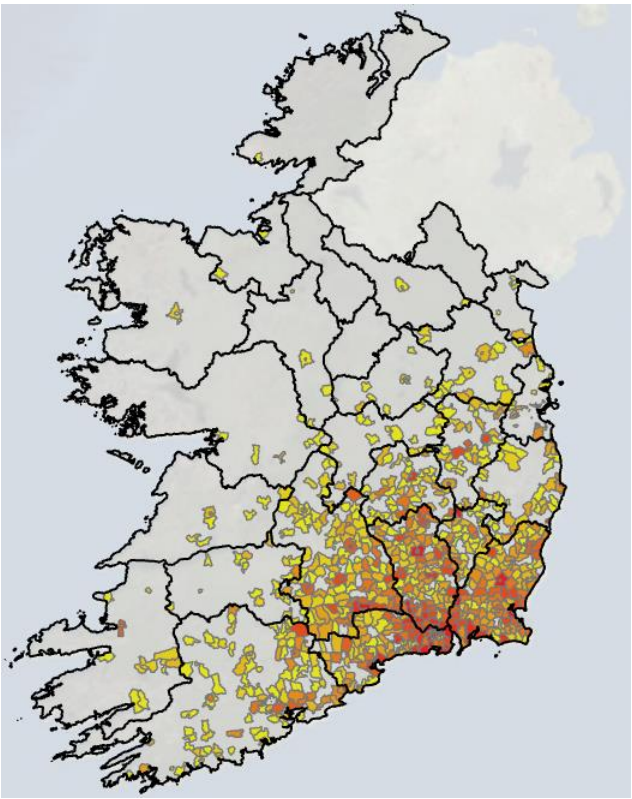
Enrolments based on Small Area Data:

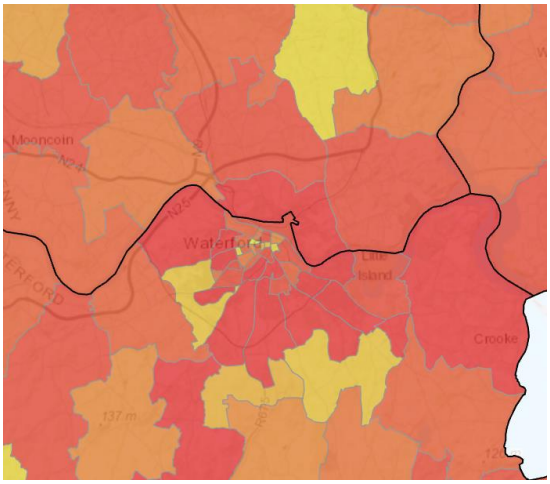
% Disadvantaged: **8%**

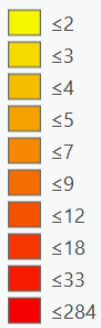
% Affluent: **12%**

The mean distance from UL students home addresses to the college is **92km (82km median)**, the mean travel time from home addresses to the college is **76 minutes**.

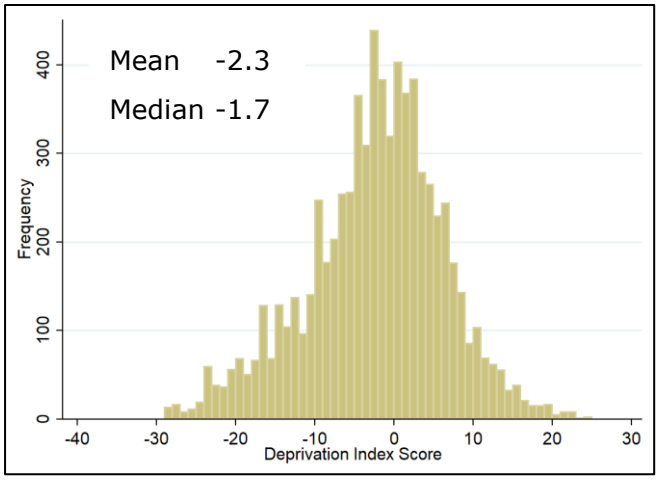
Waterford Institute of Technology (WIT)



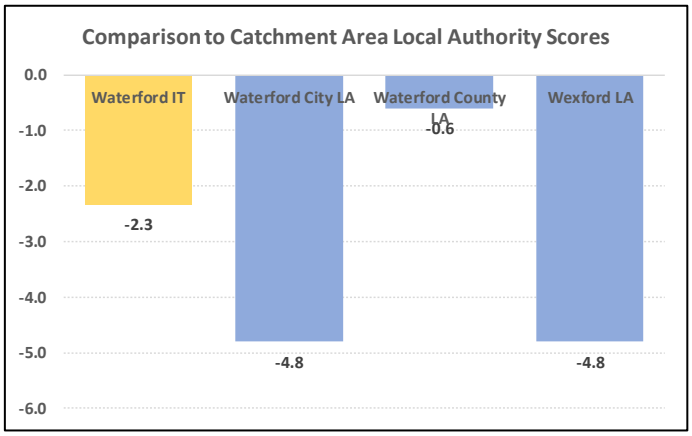




The ED maps above show that WIT enrolments primarily come from the south east region – Waterford, Wexford, Kilkenny, Tipperary and Carlow. A few areas in Waterford City have relatively few enrolments.



ISCED Field of Study	Score
(0221) Religion and theology	5.5
(0812) Horticulture	1.4
(0220) Humanities (except languages) n.e.c.	0.3
(0412) Finance, banking and insurance	0.3
(0111) Education science	-0.2
.....	.....
(0210) Arts n.e.c.	-3.9
(0722) Materials (glass, paper, plastic and wood)	-4.3
(0922) Child care and youth services	-4.4
(0213) Fine arts	-6.3
(0416) Wholesale and retail sales	-6.9



Enrolments based on Small Area Data:

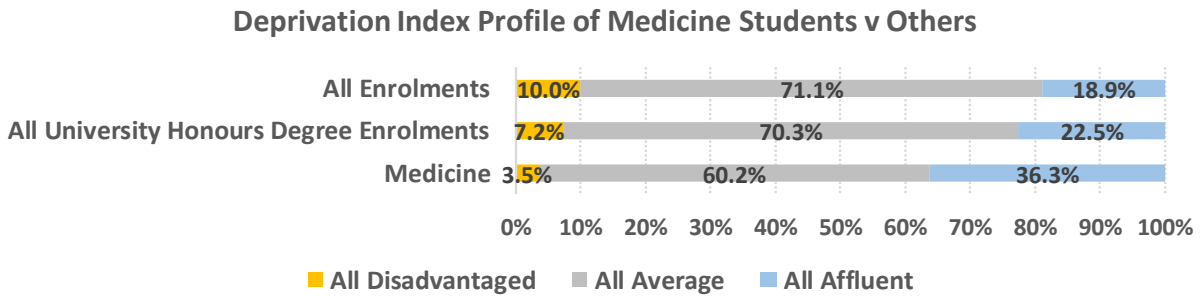
% Disadvantaged: **17%**

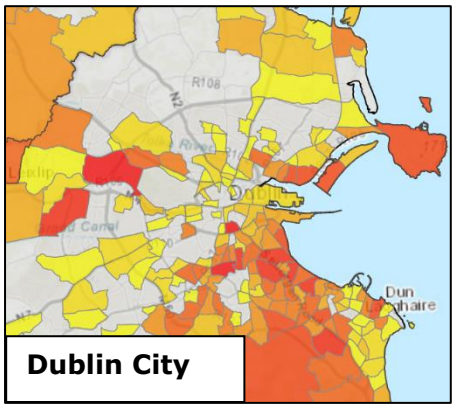
% Affluent: **6%**

The mean distance from WIT students home addresses to the college is **67km (55km median)**, the mean travel time from home addresses to the college is **58 minutes**.

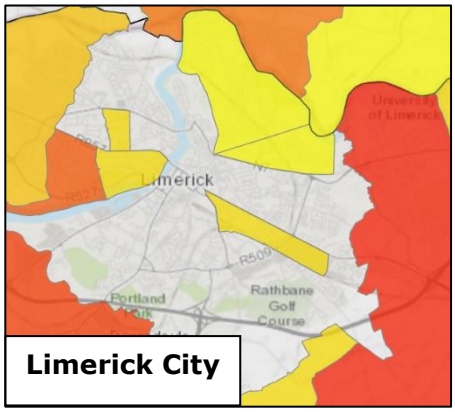
Focus on Medicine Field of Study

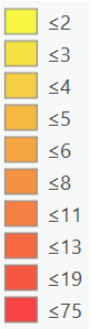
Economics, library & information studies and medicine are highlighted as the three most affluent student cohorts on average (mean deprivation index scores of 7.1, 6.7 and 6.5 respectively). However, the first two are based on a relatively small number of courses (the economics score is driven by economics courses in UCD; many economics related courses in the Country are not classified in the economics ISCED field of study as they are interdisciplinary courses). The medicine field of study is the only one of the top 15 most affluent student cohorts with over 3,000 Irish enrolments with deprivation index scores available and is actually the 13th largest detailed field of study in 2017/18, based on Irish enrolments with deprivation index scores (98 fields in this analysis in total). 3.5% of medicine enrolments come from disadvantaged areas (this figure is 10% for all fields), 36.3% of medicine enrolments come from affluent areas (this figure is 18.9% for all fields).

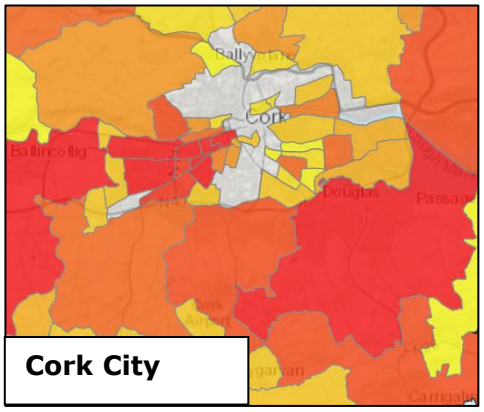


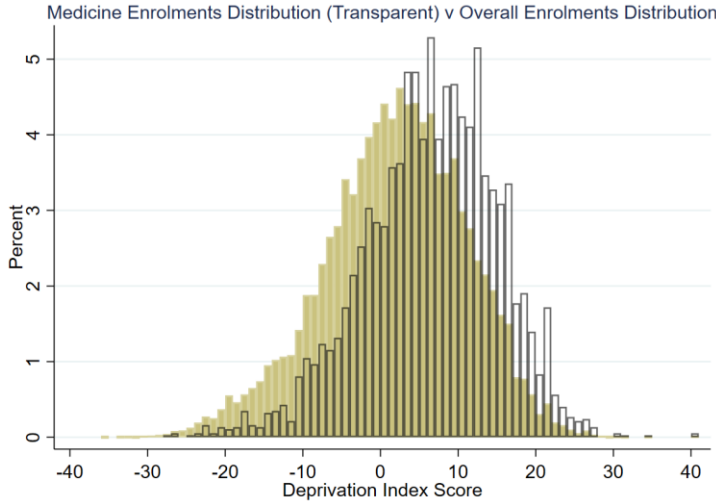


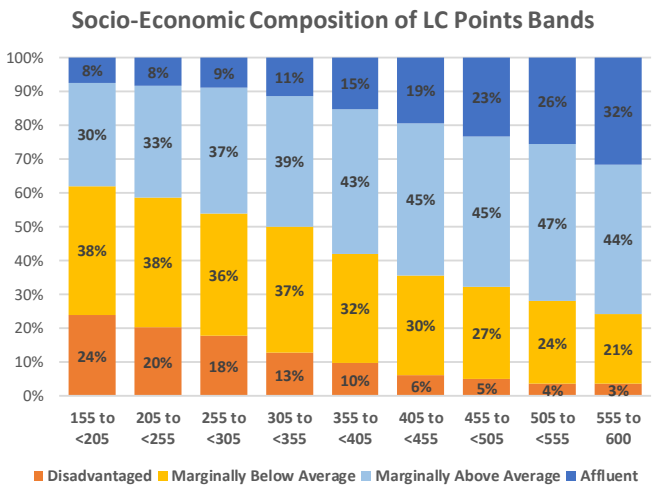
The ED maps show that medicine enrolments from Dublin come from south Dublin more than north Dublin City, although Clontarf, Howth, Castleknock and Malahide have relatively high enrolment numbers. D4 and D6 combined account for 14% of medicine enrolments from Dublin but only account for 6% of all enrolments from Dublin. Many of the most deprived areas in inner-city Limerick and Cork have very few/no enrolments. Only ED counts >1 shown.











The histogram graph above shows that the distribution of medicine enrolment deprivation index scores is substantially different to the distribution of overall higher education enrolment deprivation index scores – the medicine distribution is shifted to the right (higher scores) with much smaller proportions less than -10 and much larger proportions above +10. For context, the graph above on the right shows the socio-economic composition of Leaving Certificate / CAO points bands for all new entrants in 2017/18, where points data are available. This shows that students from affluent areas enter with higher points on average, largely accounting for the socio-economic profile of high-points courses. The table below shows the mean deprivation index scores for the core medicine courses in each HEI[3].

HEI/Course	Mean Deprivation Index Score for Specific Medicine Course	Mean Deprivation Index Score for All Honours Degrees Within the Same HEI
University College Cork Medicine (Graduate Entry)	9.5	6.2
University College Cork Medicine	8.4	6.2
Royal College of Surgeons Graduate Entry Medicine	8.3	6.3
Royal College of Surgeons Medicine	8.1	6.3
University College Dublin Medicine	8.0	5.3
University College Dublin Medicine Graduate Entry	7.3	5.3
National University of Ireland, Galway M.B., B.CH., B.A.O. Degree	4.8	1.2
University of Limerick Bachelor of Medicine/Bachelor of Surgery	4.0	0.8
All Universities All Honours Degrees Mean Deprivation Index Score	*3.2*	
Overall Mean Deprivation Index Score for All Enrolments Nationally	*1.9*	

[3] The Dental Studies and Pharmacy fields also have relatively high mean deprivation index scores when university courses in these areas are isolated (both 6.9 mean score). However, since TCD is not included in this analysis, these fields are not focussed on as TCD, UCC & RCSI (pharmacy) run the only degree courses in these areas.

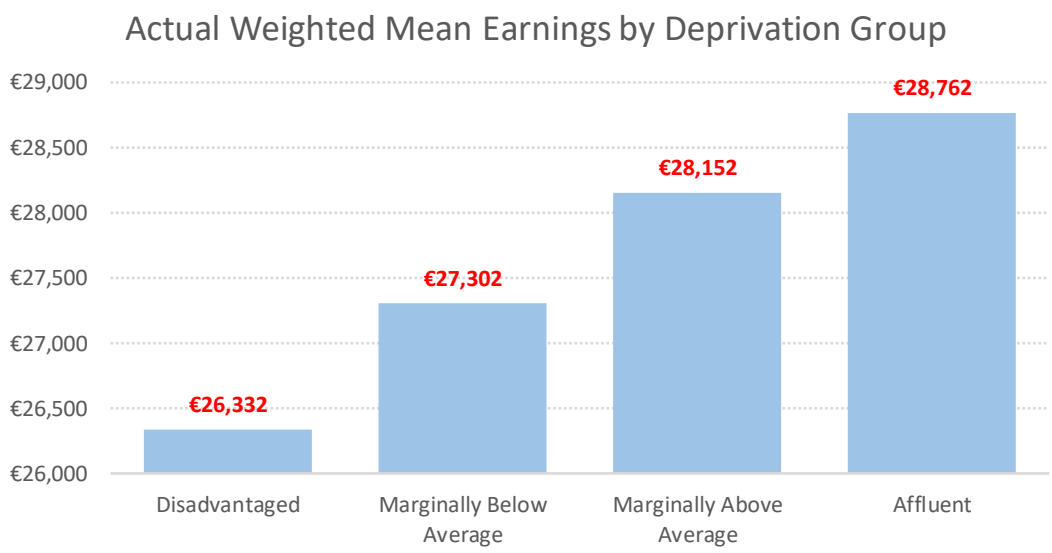
Deprivation Index Scores in Graduate Outcomes Analysis

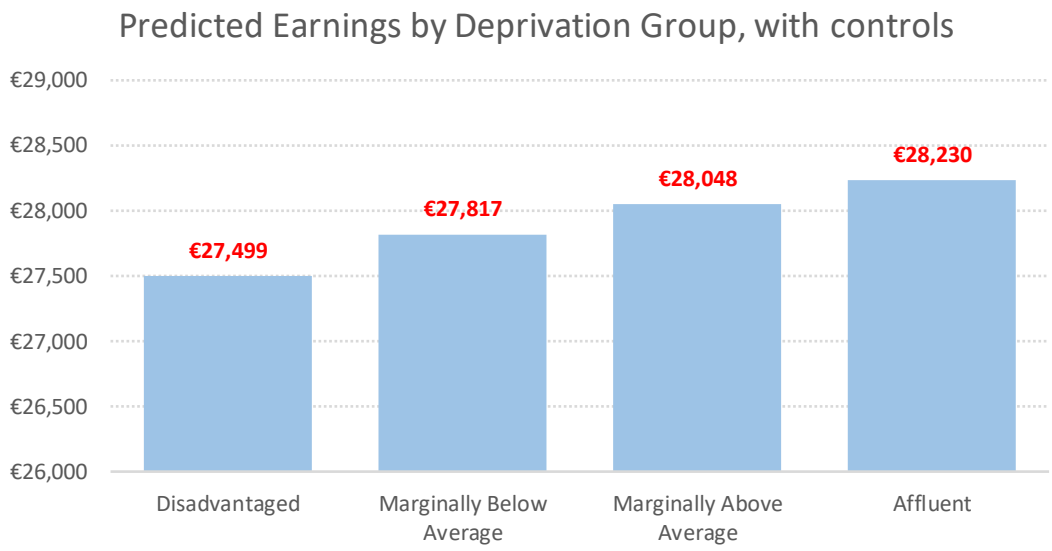
The HEA Graduate Outcomes Analysis for the class of 2017 contains an earnings regression analysis in section 8, with full results in appendix 8[4]. Interval regression models were used to analyse graduate earnings for the class of 2017, nine months after they graduated. Estimates of earnings differences by institute type, field of study, NFQ level, gender, sector of employment, region of employment, age, final grade, contract type, occupation group and employment type (employee, internship, self-employed) were obtained for all graduates and younger graduates, defined as under age 30 in that analysis. Results showed that, after controlling for the set of predictors above, university graduates earn more than institute of technology graduates, males earn more than females, those in Dublin earn more than those elsewhere in Ireland, education graduates earn more than graduates from other fields initially, higher grades attract an earnings premium and earnings rise with higher levels of qualification.

That analysis has been extended below to include deprivation index scores for each graduate based on the Census small area they come from. Since home address is used, the analysis is restricted to graduates aged 25 or under as home address for older graduates is less likely to indicate their origins and this analysis is designed to show socio-economic mobility from origins. PhDs are also excluded since there are so few in that group at that age. The same set of predictor variables is used as the analysis described above in the graduate outcomes report, with the addition of deprivation index score as a continuous variable in one model variation and as a categorical variable in another model variation (affluent, marginally above average, marginally below average and disadvantaged). Estimates of the other coefficients are not dissimilar to the model for younger graduates in the graduate outcomes report and are not focussed on here. The analysis below focusses on the relationship between deprivation index scores and graduate earnings after controlling for the set of characteristics above and also attempts to analyse socio-economic mobility of sorts using these data via a transition analysis from deprivation index decile to earnings decile. There are 7,011 observations in the model, weighted for non-response by institute, NFQ and mode of study.

Firstly, mean earnings for graduates by deprivation index group, before controls are introduced, are presented. Then predicted earnings after the controls are introduced in a model are presented, followed by a transitions matrix which shows the composition of earnings deciles by deprivation index deciles. The deprivation deciles are based on the actual deprivation index score for each graduate, the earnings deciles are based on predicted earnings, therefore showing levels of mobility after other factors are accounted for.

[4] http://hea.ie/assets/uploads/2019/02/HEA-Graduate-Outcomes-Survey.pdf





Transitions Matrix: From Deprivation Index Score Decile (actual) to Earnings Decile (predicted)

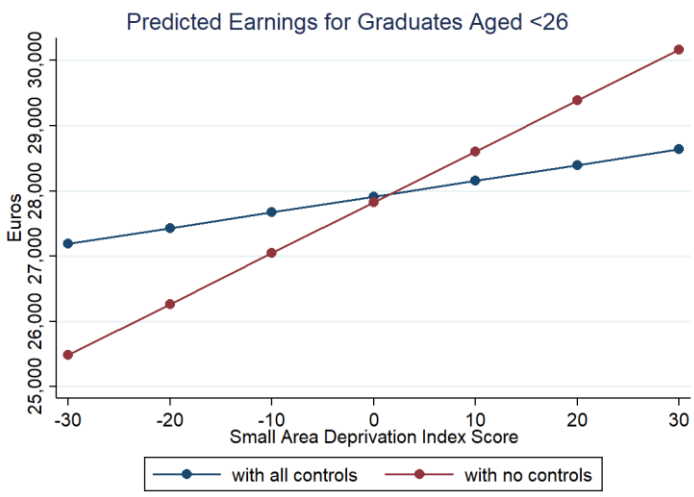
	Earnings1	Earnings2	Earnings3	Earnings4	Earnings5	Earnings6	Earnings7	Earnings8	Earnings9	Earnings10
DIS1	16%	13%	12%	11%	8%	9%	8%	8%	8%	5%
DIS2	11%	12%	12%	11%	10%	10%	12%	8%	11%	5%
DIS3	15%	11%	10%	8%	8%	10%	10%	11%	8%	8%
DIS4	12%	10%	8%	12%	10%	10%	9%	9%	10%	10%
DIS5	8%	9%	11%	10%	10%	10%	10%	11%	10%	10%
DIS6	9%	10%	10%	11%	10%	11%	9%	10%	10%	10%
DIS7	9%	8%	10%	8%	12%	12%	10%	12%	10%	10%
DIS8	8%	10%	8%	9%	11%	10%	11%	11%	10%	11%
DIS9	7%	8%	10%	10%	10%	11%	10%	9%	11%	14%
DIS10	6%	9%	9%	9%	9%	8%	11%	11%	12%	16%

The transitions matrix shows that, even after accounting for other factors, those from disadvantaged areas earn less than those from more affluent areas. Proportions over 10% are highlighted in the matrix to show the general pattern. Perfect equality would be indicated by 10% in every cell, albeit this is based on analysis of two different measures of position.

Dependent variable: Salary bands (interval regression)	Coefficient		Standard Error
Small area deprivation index score	24	*	10
Gender			
Female	-		(base)
Male	1,487	***	188
ISCED Broad Field of Study			
Agriculture, forestry, fisheries and veterinary	3,565	***	844
Arts and humanities	-		(base)
Business, administration and law	2,402	***	355
Education	7,997	***	643
Engineering, manufacturing and construction	5,036	***	446
Health and welfare	5,226	***	483
Information and Communication Technologies (ICTs)	6,517	***	474
Natural sciences, mathematics and statistics	4,991	***	408
Services	3,227	***	592
Social sciences, journalism and information	1,673	***	434
Institute Type			
College	-650		624
Institute of Technology	-1,450	***	218
University	-		(base)
NACE Employment Sector			
Accommodation and food service activities	-3,869	***	589
Administrative and support service activities	-2,372	***	613
Agriculture, forestry and fishing	1,067		852
Construction	-367		646
Education	-4,809	***	619
Financial, insurance and real estate activities	-2,459	***	345
Human health and social work activities	51		505
Industry	-		(base)
Information and communication	-279		465
Professional, scientific and technical activities	-305		374
Public administration and defence	-1,022		741
Transportation and storage	-238		722
Unknown	-2,117	***	435
Wholesale and retail trade	-3,610	***	547
Employment Region			
Border	-4,360	***	604
Dublin	-		(base)
Mid-East	-1,733	***	322
Mid-West	-1,553	***	312
Midlands	-1,849	***	449
Other Countries	1,073		581
South-East	-2,154	***	421
South-West	-951	***	271
Unknown	-1,645		1,027
Unknown Ireland	-1,379		898
West	-2,184	***	345
NFQ Level			
Level 6	-2,754	*	1,217
Level 7	-431		540
Level 8	-		(base)
Level 9	771	**	262
Age	845	***	97
1st/Upper 2nd or Equivalent Grade	641	**	197

Dependent variable: Salary bands (interval regression)	Coefficient		Standard Error
Employment Type			
An Employee	-		(base)
On a graduate internship/placement	-684	*	318
Self-employed/freelance/starting up own business	1,161		1,654
Unknown	-2,723		3,803
Contract Type			
Fixed term contract lasting 12 months or longer	-1,165	***	209
Fixed term contract lasting less than 12 months	-2,049	***	325
Permanent or open-ended contract	-		(base)
Temporary, casual or employed through an agency	-2,587	***	364
Unknown	-162		1,105
Occupation Group			
Administrative and secretarial occupations	-1,446	***	349
Associate professional and technical occupations	-833	**	259
Caring, leisure and other service occupations	-4,727	***	547
Elementary occupations	-7,359	***	837
Managers, directors and senior officials	2,612	***	746
Postdoctoral researchers	-4,683	***	793
Process, plant and machine operatives	-1,062		698
Professional occupations	-		(base)
Sales and customer service occupations	-3,753	***	368
Skilled trades occupations	-1,557	*	776
Unknown	-2,119	**	621
****p<.001 **p<.01 *p<.05*	*7,011 observations*		

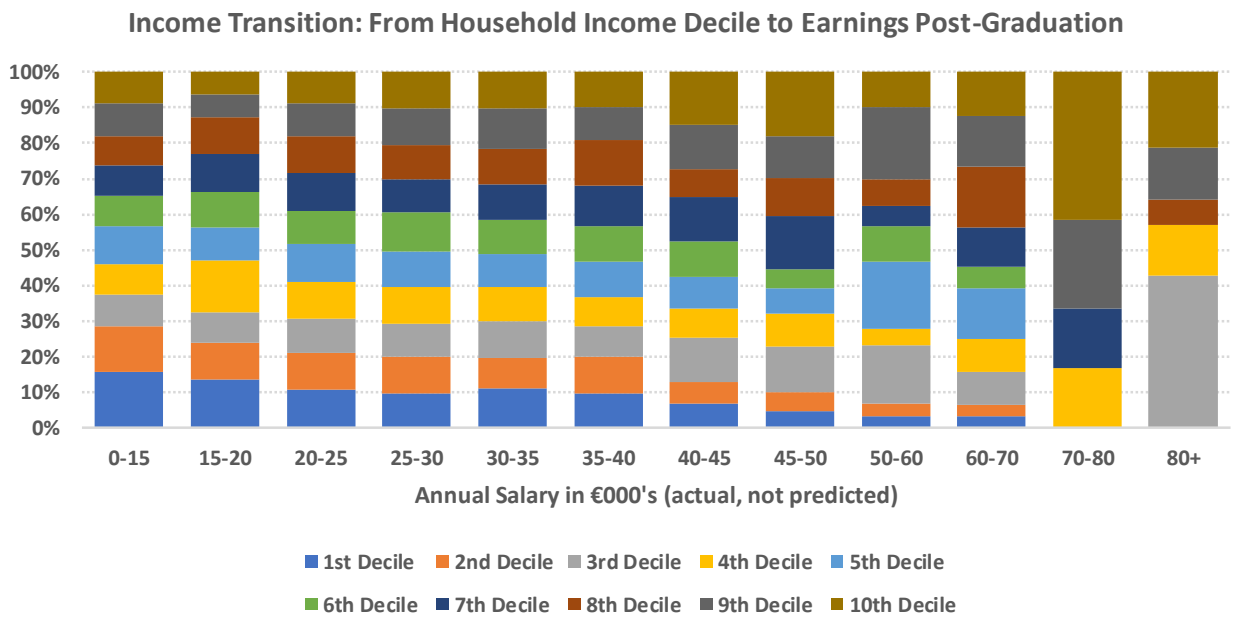
The full model results above, with deprivation index score included as a continuous variable, indicate that for every point increase in the deprivation index score, earnings increase by €24, importantly – after all other factors are used to determine variation in earnings, i.e. socio-economic origins have a bearing on earnings, regardless of the level, specialism or grade achieved in higher education or employment characteristics. However, the coefficient is €78 without any controls, indicating that higher education outcomes do assist in improving earnings equality across the deprivation spectrum (account for circa 70% of the difference).



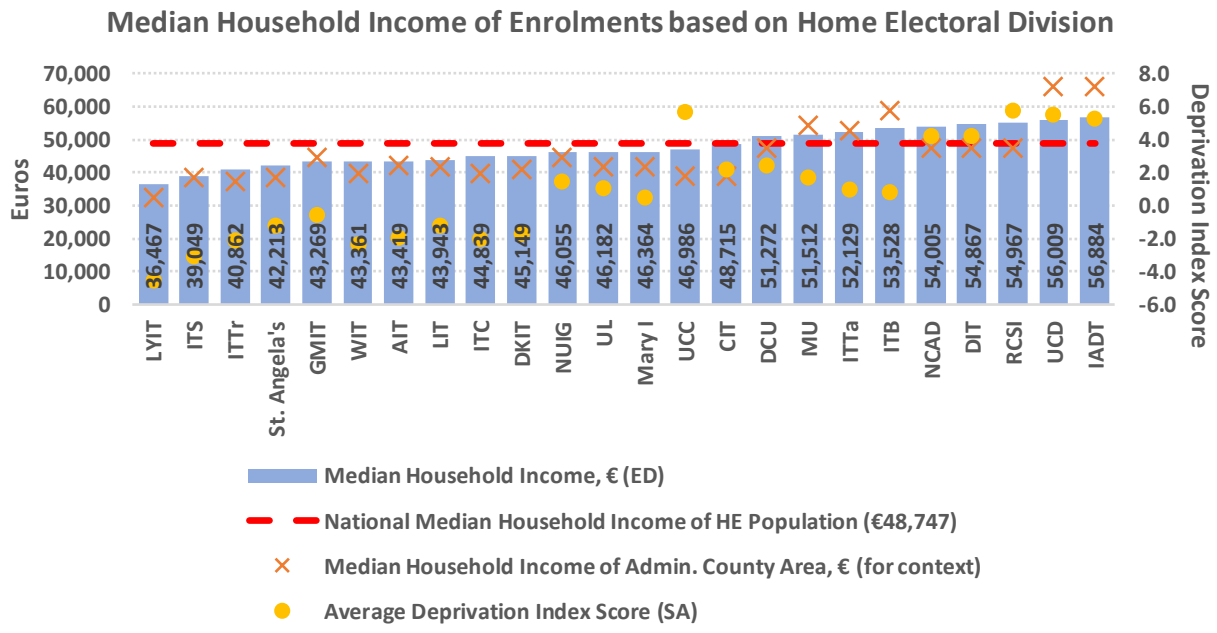
CSO Electoral Division Level Income Data and Other Small Area Data

The CSO released household income data at Electoral Division level in June 2019, based on linking Revenue and Social Protection data with Census records. These data are used here in further graduate outcomes analysis and for a profile of institution level enrolments by home ED income levels. All income referred to here is median gross household income.

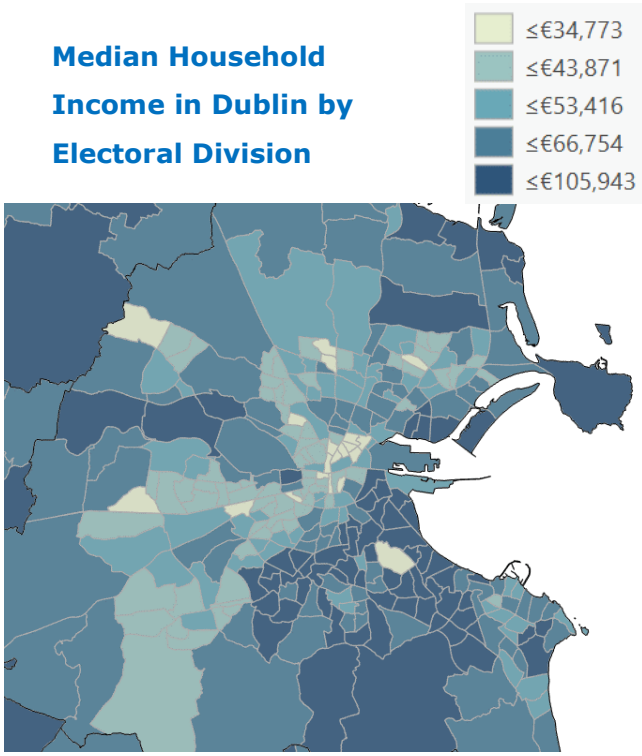
The graphs below are based on an analysis of younger graduates earnings from graduate outcomes survey data, linked to CSO ED level income data. Model results indicate that home origin ED household income is a determinant of earnings, but the magnitude effect is small and differences only become meaningful when comparing the top and bottom levels. The lowest income deciles (1st and 2nd) tend to stay in the lower income bands and the higher income deciles (9th and 10th) are represented more in the higher income bands. However, there is considerably more mobility in the middle deciles (3rd to 8th) – e.g. the 3rd and 5th.



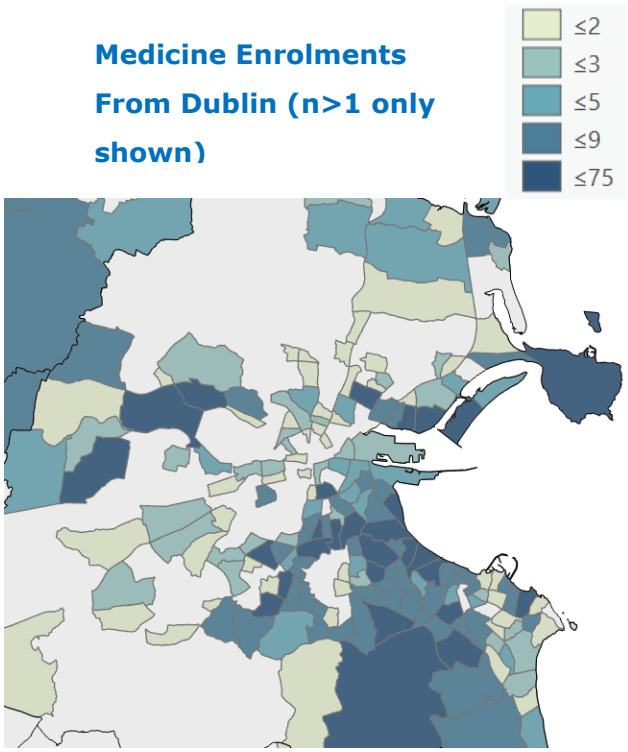
The graph below profiles institution level enrolments by home ED average household income and the maps compare median household incomes in Dublin to medicine enrolments from Dublin. As expected, there is a strong positive correlation between household income and deprivation index scores. Also evident, medicine enrolments tend to come from the highest income areas.



Median Household Income in Dublin by Electoral Division

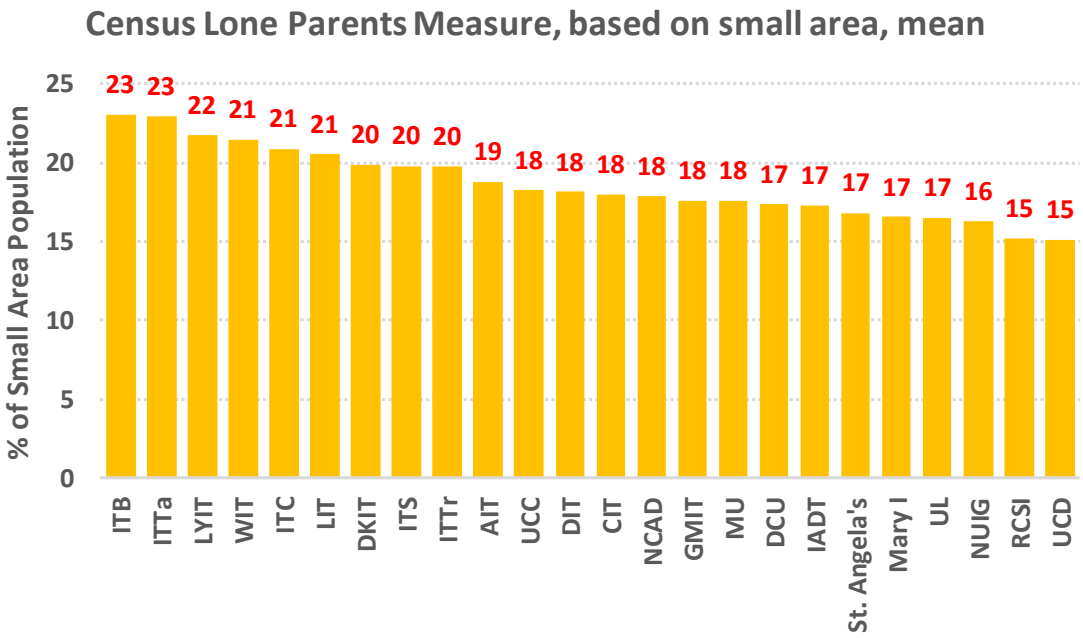


Medicine Enrolments From Dublin (n>1 only shown)

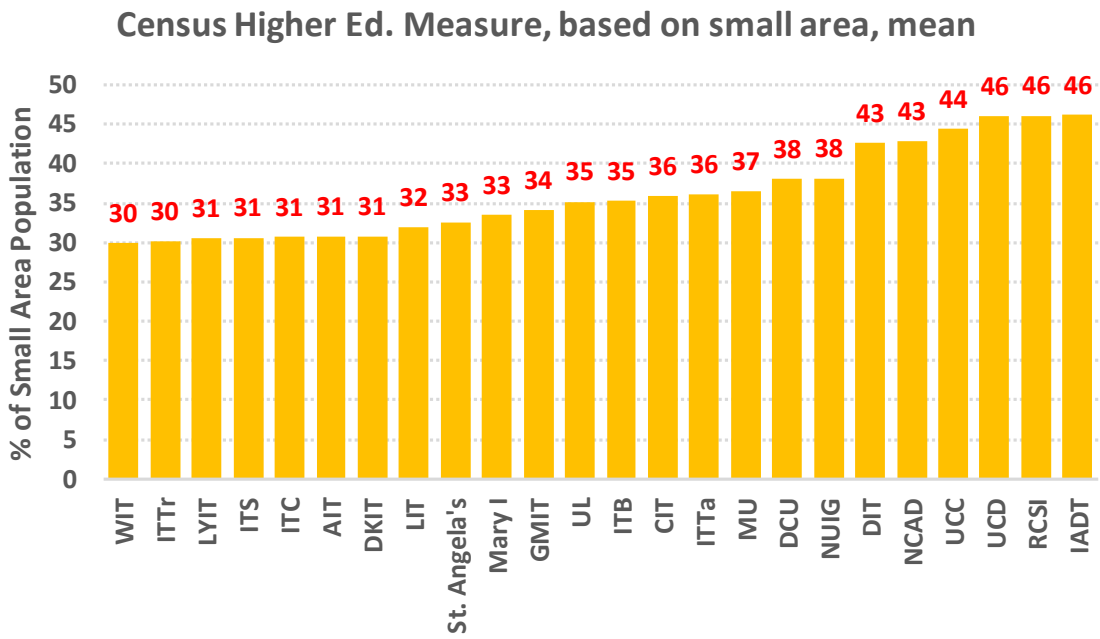


The two graphs below show another two key data of interest derived from small area data – lone parent proportions and proportions with third level education. These two factors are members of the composite deprivation index scores but are worth looking at individually.

The first graph shows that students in UCD and RCSI, on average, come from areas where 15% of the households with children aged under 15 years are headed by a single parent. This figure is 23% for IT Blanchardstown and IT Tallaght students.



The second graph shows that, on average, based on the small areas enrolments come from, IADT, RCSI and UCD students come from areas where 46% of the population aged 15+ in those areas have a 3rd level education. This figure is 30% for WIT and IT Tralee students.



Appendix A: HEI Student Numbers, Coverage and Deprivation Ratios

Institute	Small Area Deprivation Index Score Available	ED Location Available for Mapping	Total Number of Irish Enrolments	% SA Coverage	% ED Coverage	Ratio of Students from Disadvantaged Areas to Every 10 Students from Affluent Areas
AIT	4,334	4,352	4,355	100%	100%	26.9
CIT	10,796	10,846	10,851	99%	100%	5.6
DCU	13,821	13,957	13,982	99%	100%	4.1
DIT	16,942	17,122	17,182	99%	100%	2.7
IADT	2,377	2,397	2,399	99%	100%	2.2
DKIT	4,149	4,177	4,179	99%	100%	25.9
GMIT	6,396	6,409	6,414	100%	100%	14.4
ITB	2,771	2,827	2,830	98%	100%	9.5
ITC	7,595	7,637	7,642	99%	100%	22.1
ITS	3,427	3,428	3,429	100%	100%	41.2
ITTa	5,022	5,087	5,098	99%	100%	8.1
ITTr	2,471	2,478	2,480	100%	100%	33.1
LYIT	3,973	3,981	3,983	100%	100%	53.9
LIT	5,849	5,871	5,871	100%	100%	18.6
Mary I	4,667	4,692	4,698	99%	100%	9.9
MU	11,346	11,438	11,468	99%	100%	5.9
NCAD	1,010	1,020	1,021	99%	100%	2.3
NUIG	14,992	15,032	15,103	99%	100%	6.0
RCSI	1,687	1,713	1,793	94%	96%	1.5
St. Angela's	1,343	1,349	1,364	98%	99%	15.5
UCC	17,354	17,472	17,480	99%	100%	1.5
UCD	21,464	21,618	21,649	99%	100%	1.5
UL	12,458	12,494	12,500	100%	100%	6.9
WIT	7,219	7,277	7,285	99%	100%	27.6
All HEIs	**183,463**	**184,674**	**185,056**	**99%**	**100%**	**5.3**

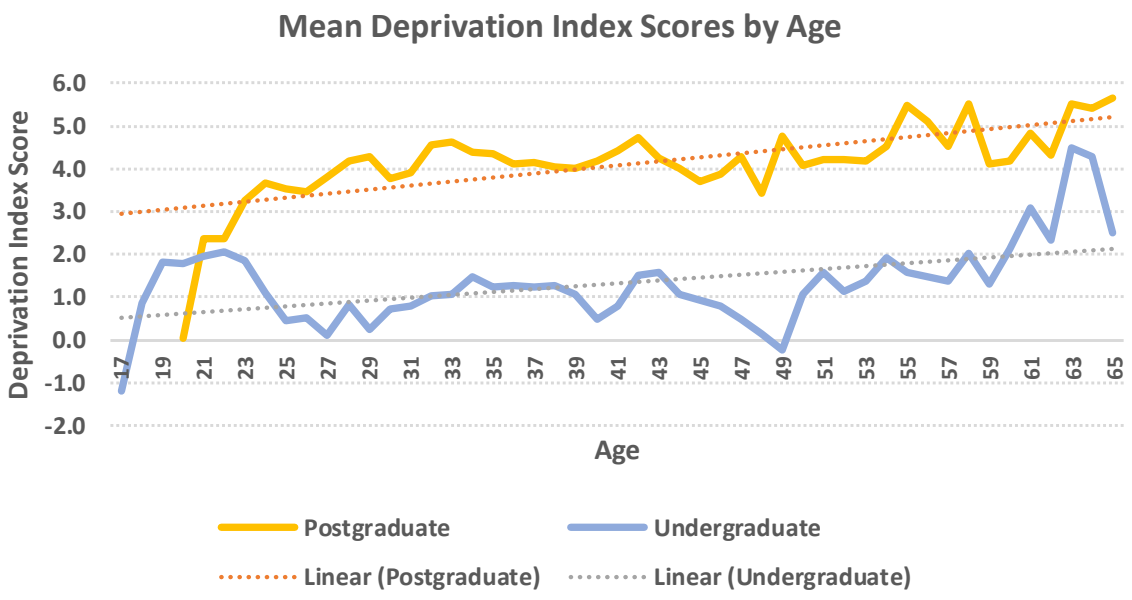
Sector	Ratio of Students from Disadvantaged Areas to Every 10 Students from Affluent Areas
Colleges	5.3
Institutes of Technology	9.2
Universities	3.1
All HEIs	**5.3**

Letterkenny IT has almost 54 students from disadvantaged areas for every 10 students from affluent areas compared to 1.5 students from disadvantaged areas for every 10 students from affluent areas in UCD, UCC and RCSI.

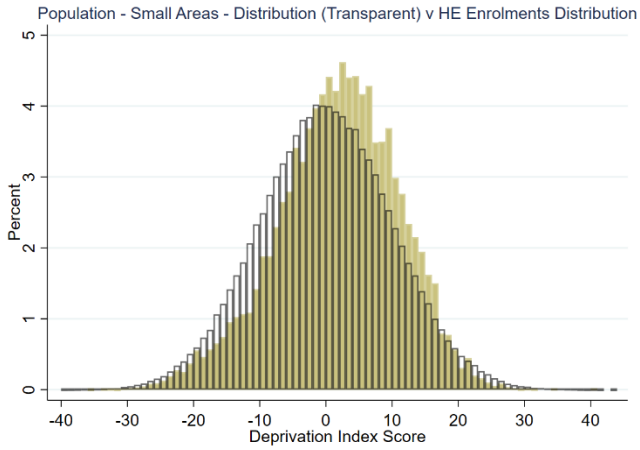
The ratio in the medicine field of study is 1 student from a disadvantaged area for every 10 students from affluent areas, the lowest ratio for any detailed field of study.

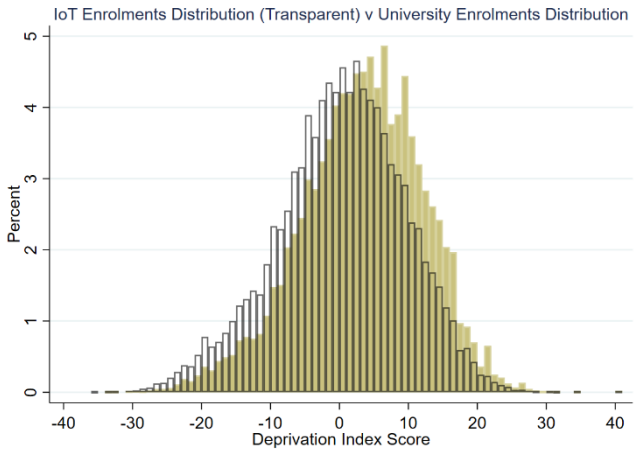
Appendix B: Deprivation Index Scores by Student Cohort & Age

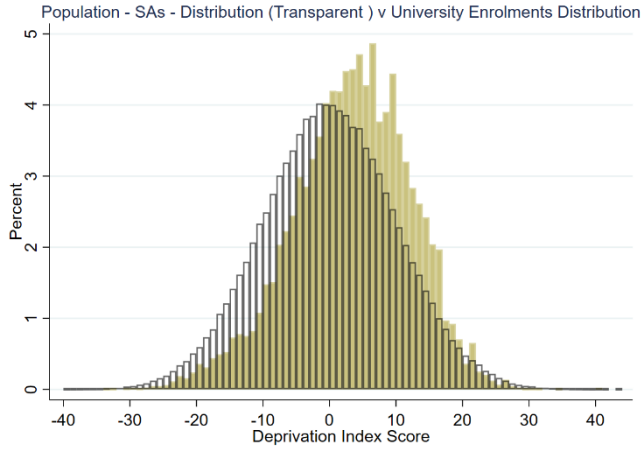
HEI	All Enrolments	All FT UG	New Entrants (1st Year FT UG)	All FT	All PT	All UG	All PG
RCSI	5.8	6.6	6.4	6.5	5.0	6.3	5.4
UCC	5.7	6.2	5.8	6.1	3.6	5.8	5.2
UCD	5.5	5.3	5.2	5.3	6.4	5.3	6.1
IADT	5.2	4.7	5.1	4.8	8.1	4.9	7.8
DIT	4.2	4.1	3.7	4.1	4.5	4.0	5.7
NCAD	4.2	3.1	2.7	3.5	8.3	4.1	4.9
DCU	2.4	2.2	2.2	2.2	3.9	2.2	3.8
CIT	2.2	1.7	1.7	1.8	3.7	2.1	3.6
MU	1.7	1.6	1.2	1.6	2.2	1.6	2.6
NUIG	1.5	1.2	1.4	1.3	2.3	1.3	2.3
UL	1.1	0.7	0.7	0.9	2.8	0.8	2.5
ITTa	1.0	-0.7	-1.1	-0.6	2.9	0.8	4.4
ITB	0.8	0.2	-0.4	0.2	3.3	0.7	3.3
Mary I	0.5	0.4	0.5	0.5	0.5	0.4	1.5
GMIT	-0.6	-0.9	-1.1	-0.9	1.3	-0.7	1.7
St. Angela's	-1.2	-1.4	-1.3	-1.6	-0.9	-1.7	-0.5
LIT	-1.2	-1.6	-1.8	-1.6	0.5	-1.3	0.1
DKIT	-1.7	-1.9	-2.3	-1.9	-0.4	-1.8	1.0
AIT	-1.9	-2.2	-2.7	-2.1	-1.6	-2.1	-0.2
ITC	-2.0	-2.7	-2.8	-2.2	-1.7	-2.2	-0.2
ITTr	-2.1	-2.3	-2.2	-2.3	-0.2	-2.1	-1.5
WIT	-2.3	-2.7	-2.8	-2.6	-0.9	-2.6	0.0
ITS	-3.1	-3.2	-3.1	-3.1	-1.5	-3.1	-2.4
LYIT	-4.6	-5.8	-6.2	-5.7	-1.6	-4.8	-1.4
Overall	**1.9**	**1.6**	**1.2**	**1.7**	**2.4**	**1.5**	**3.8**

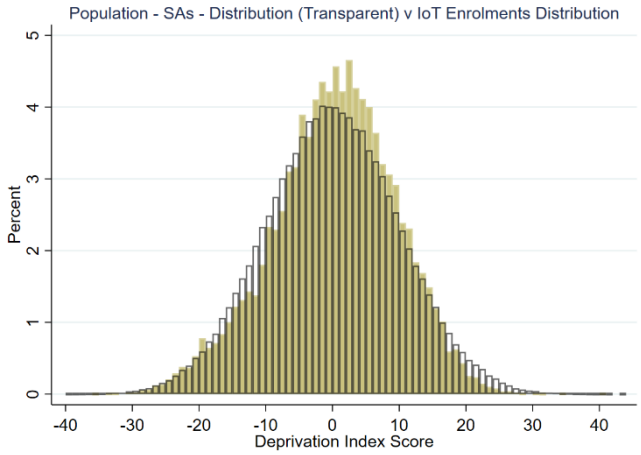


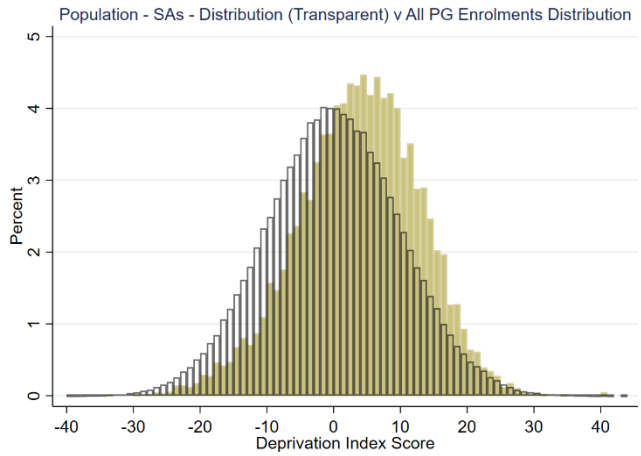
Appendix C: Distribution Comparison v Population & by Sector/Level

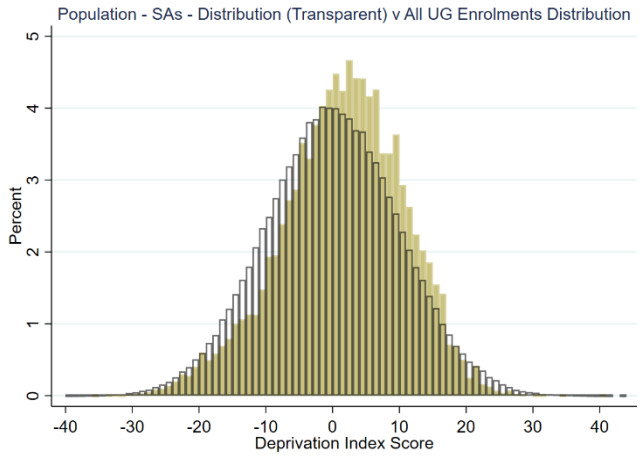




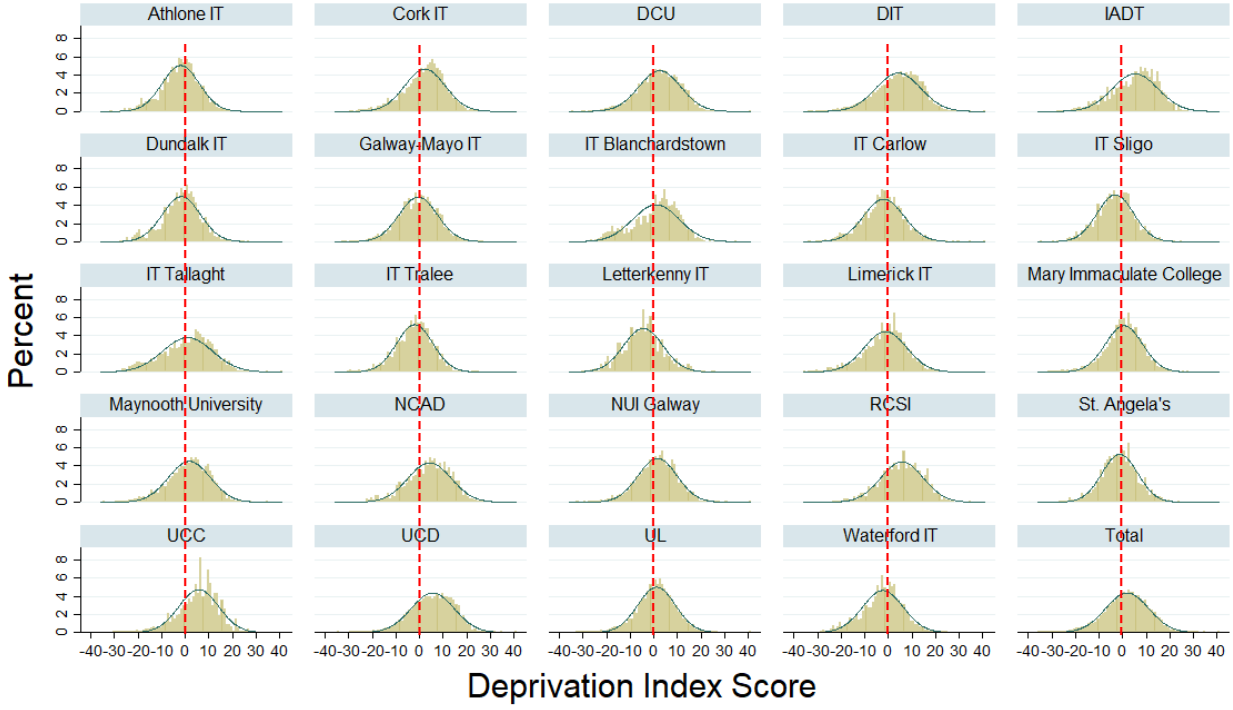








Appendix D: Direct Comparison of HEI Index Score Distributions



- The y axis is in percentage units (% of the HEI enrolments at each index score).

- A perfect normal distribution for the HEI displayed is overlaid on each HEI distribution (mean = the actual HEI mean, not zero).

- The red lines show the zero position in all distributions. Zero is the mean deprivation index score for all Census small areas in the Country. The mean deprivation index score for all students enrolled in higher education in 2017/18, based on the Census small area they come from, is 1.9. The bottom right graph illustrates the distribution for the overall higher education population. The standard deviation for the overall student population is 9.2. By HEI, the largest standard deviation is 10.5 for IT Tallaght (the widest distribution, i.e. IT Tallaght has students from across the deprivation spectrum), the smallest standard deviation is 7.6 for St. Angela's College (the narrowest distribution, i.e. St. Angela's College has a more homogenous student population).

- HEIs with distributions tending to the right of the red line are those with more affluent student populations in general (e.g. the RCSI) and those with distributions tending to the left of the red line are those with more disadvantaged student populations in general (e.g. Letterkenny IT).

Appendix E: HEI Composition by County (%) and Mobility Analysis

HEI	Carlow	Cavan	Clare	Cork	Donegal	Dublin	Galway	Kerry	Kildare	Kilkenny	Laois	Leitrim	Limerick	Longford	Louth	Mayo	Meath	Monaghan	Offaly	Roscommon	Sligo	Tipperary	Waterford	Westmeath	Wexford	Wicklow
AIT	0	3	1	1	1	3	13	0	2	1	3	1	1	7	1	4	4	1	15	10	1	2	0	25	1	1
CIT	0	0	1	77	0	1	1	7	1	1	0	0	2	0	0	0	0	0	0	0	0	4	3	0	1	0
DCU	2	3	1	1	4	41	2	1	5	2	1	1	1	1	5	3	9	3	1	1	1	1	1	2	5	3
DIT	1	2	0	2	1	57	1	0	7	1	1	0	1	1	2	1	6	1	1	1	1	1	0	1	2	6
IADT	1	1	1	1	1	61	2	1	3	1	0	0	0	1	1	1	3	1	1	0	0	1	1	1	4	14
DKIT	0	6	0	2	1	12	0	0	1	0	0	0	0	0	44	0	16	13	0	0	0	0	0	1	1	1
GMIT	0	2	5	1	4	2	43	1	1	0	1	2	1	2	1	19	1	1	2	5	2	1	0	2	0	1
ITB	0	2	0	0	0	66	0	0	7	0	1	0	0	0	2	0	16	1	0	0	0	0	0	1	0	2
ITC	15	1	1	2	1	9	2	1	13	7	7	0	1	1	1	1	2	1	2	1	0	2	2	1	16	9
ITS	0	6	0	1	15	2	5	0	1	0	0	8	0	3	1	15	1	3	1	5	28	0	0	4	0	1
ITTa	0	0	0	5	0	68	1	0	10	0	1	0	2	0	1	0	2	0	1	0	0	1	0	1	0	5
ITTr	0	0	5	13	0	2	1	57	1	1	1	0	10	0	0	1	1	0	0	0	0	2	1	0	1	1
LYIT	0	2	1	1	72	3	4	0	1	0	0	1	1	1	1	2	1	2	0	2	3	0	0	1	0	1
LIT	0	0	19	5	0	1	4	3	1	1	2	0	38	0	0	2	1	0	2	1	0	16	1	1	1	0
Mary I	1	1	10	16	1	5	10	8	1	2	3	0	17	0	1	3	1	0	2	1	0	11	3	1	2	1
MU	2	3	1	1	3	28	1	0	19	2	2	1	1	1	4	1	12	1	2	1	1	1	1	3	4	2
NCAD	2	0	0	1	1	56	3	0	7	1	1	0	0	0	5	1	5	2	1	1	0	0	1	1	4	5
NUIG	1	1	5	2	5	3	46	2	2	1	1	1	3	1	1	8	2	1	2	3	3	2	1	2	1	1
RCSI	1	1	1	5	1	51	4	2	5	2	1	0	2	1	2	2	5	1	1	2	1	2	1	2	2	3
St. Angela's	1	3	2	4	13	4	8	2	1	3	1	6	2	2	1	9	2	4	1	6	17	2	1	2	2	1
UCC	0	0	2	62	0	2	1	9	1	2	1	0	4	0	0	0	0	0	0	0	0	6	5	0	1	0
UCD	1	1	1	3	2	48	2	1	5	2	1	1	1	1	2	2	4	1	1	1	1	2	1	2	4	6
UL	1	1	12	10	1	3	6	7	2	3	3	0	25	0	0	4	1	0	2	1	1	10	3	1	2	1
WIT	3	0	1	7	0	2	1	1	3	13	3	0	1	0	0	0	1	0	1	0	0	12	33	0	15	2
All HEIs	**1**	**1**	**3**	**13**	**3**	**22**	**7**	**3**	**5**	**2**	**2**	**1**	**5**	**1**	**3**	**3**	**4**	**1**	**2**	**1**	**2**	**4**	**3**	**2**	**3**	**3**
% Population Aged 20 - 29 (Census)	1	1	2	11	3	36	6	2	4	2	2	0	4	1	3	2	3	1	1	1	1	3	2	2	3	3

* All figures are rounded to the nearest % (Leitrim accounts for less than 0.5% of 20 – 29 year olds, as per Census 2016 figures).

HEI Irish student body proportions over 10% are highlighted (table is read across rows). The final two rows show a comparison between the County composition of the higher education population overall versus the proportion of all 20 - 29 year olds in the Country by County, as per Census 2016. Trinity College Dublin are not included in this analysis, inclusion of TCD brings the Dublin proportion of the higher education population up by around 2 percentage points. As with elsewhere in the report, analysis is of Irish students only.

The final three tables show student/graduate mobility (1) from home region to institute attended region, (2) from institute attended region to region of employment post-graduation and (3) from home region to region of employment post-graduation, based on graduate outcomes survey data for those with a reported salary.

Read Across Rows	**Institute Region**							
Home Region	**Border**	**Dublin**	**Mid-East**	**Midlands**	**Mid-West**	**South-East**	**South-West**	**West**
Border	12%	40%	20%	3%	7%	2%	2%	13%
Dublin	0%	82%	10%	1%	2%	2%	1%	2%
Mid-East	0%	54%	28%	1%	3%	9%	2%	3%
Midlands	2%	32%	14%	19%	12%	10%	3%	9%
Mid-West	1%	13%	2%	1%	57%	5%	14%	8%
South-East	0%	29%	6%	1%	11%	38%	12%	3%
South-West	0%	8%	1%	0%	13%	1%	73%	2%
West	3%	20%	6%	6%	17%	1%	3%	45%

Read Across Rows	**Employment Region**										
Institute Region	**Border**	**Dublin**	**Mid-East**	**Midlands**	**Mid-West**	**Other Countries**	**South-East**	**South-West**	**Unknown**	**Unknown Ireland**	**West**
Border	34%	19%	3%	5%	5%	8%	2%	4%	0%	0%	20%
Dublin	2%	71%	8%	2%	2%	6%	3%	3%	0%	1%	2%
Mid-East	6%	48%	27%	5%	1%	5%	5%	1%	0%	0%	3%
Midlands	4%	12%	7%	48%	3%	4%	1%	3%	0%	0%	16%
Mid-West	1%	18%	4%	3%	41%	8%	3%	13%	0%	1%	7%
South-East	0%	17%	23%	4%	7%	3%	39%	5%	0%	0%	1%
South-West	0%	16%	2%	1%	6%	6%	3%	63%	1%	2%	1%
West	5%	19%	3%	5%	8%	5%	1%	3%	0%	0%	52%

Read Across Rows	**Employment Region**										
Home Region	**Border**	**Dublin**	**Mid-East**	**Midlands**	**Mid-West**	**Other Countries**	**South-East**	**South-West**	**Unknown**	**Unknown Ireland**	**West**
Border	31%	35%	9%	3%	3%	8%	1%	1%	0%	0%	7%
Dublin	0%	83%	5%	1%	1%	6%	1%	1%	0%	1%	1%
Mid-East	1%	54%	32%	3%	1%	4%	2%	1%	0%	0%	2%
Midlands	2%	33%	9%	35%	3%	5%	3%	3%	0%	1%	5%
Mid-West	0%	18%	3%	2%	51%	6%	3%	11%	0%	1%	5%
South-East	0%	27%	6%	1%	5%	5%	45%	8%	0%	1%	2%
South-West	0%	17%	3%	1%	5%	6%	1%	64%	0%	1%	2%
West	1%	23%	3%	4%	6%	6%	1%	2%	0%	1%	52%

Background Notes and Limitations

Background Notes:

1. Prior to deprivation index score analysis, the HEA primarily used socio-economic group, derived from fathers occupation, collected in the Equal Access Survey to measure relative socio-economic position of students. Students were coded into 11 groups: higher professional, lower professional, employers and managers, non-manual, manual skilled, semi-skilled, unskilled, own account workers, farmers, agricultural workers and all others gainfully occupied and unknown. The non-manual, semi-skilled, unskilled and agricultural worker groups are underrepresented in higher education and were a key focus in the National Plan for Equity of Access to Higher Education. These data are no longer collected in the Equal Access Survey, partly due to data protection concerns regarding collecting data on parents and partly due to the adoption of deprivation index scores as the method of measuring socio-economic position. Deprivation index scores are a composite of ten Census measures - the age dependency rate, population change, primary education figure, third level education figure, professional classes figure, persons per room, lone parents figure, semi and unskilled classes figure, male unemployment rate and female unemployment rate. Scores are available at aggregated level such as Local Authority area and disaggregated levels such as at Electoral Division level and Census small area level. The Census 2016 relative scores at small area level are used in the analysis in this profile, since these are the most disaggregated available (small areas have less than 100 dwellings on average with a high degree of socio-economic homogeneity). Student home address data is used to assign a student to the appropriate Census small area and that is the origin of their index score.
2. Broad geographic differences in deprivation index scores are evident (e.g. Donegal generally low scores, Dun Laoghaire generally high scores). To provide context the analysis incudes comparisons to local area scores to show general local representativeness.
3. Arc GIS and Stata were used for the spatial analysis and data modelling in this profile.

Limitations:

1. The home address requested from HEIs was 'The full permanent address prior to entry to the programme of study. It is not necessarily the correspondence/term address.' Despite this, a small proportion of addresses provided were updated (mid-course) home addresses. Term address has been returned for some students (e.g. UCC student campus addresses, however removal of that cohort has a limited effect on the overall HEI level scores).
2. The overall enrolment analysis/maps are not a participation analysis since population of younger persons by area is not analysed. The analysis is simply number of enrolments.
3. No time series data are available but will be going forward as more data are geocoded.
4. Graduate outcomes analysis uses a restricted sample, plus the mobility analysis uses different measures of socio-economic position (home area income/deprivation/earnings).