

AirBnb & Homelessness in Ireland

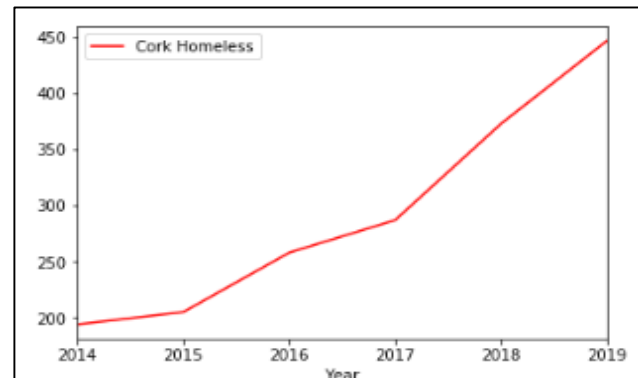
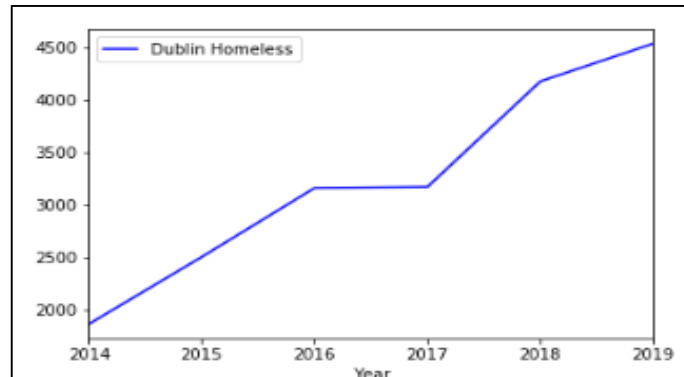
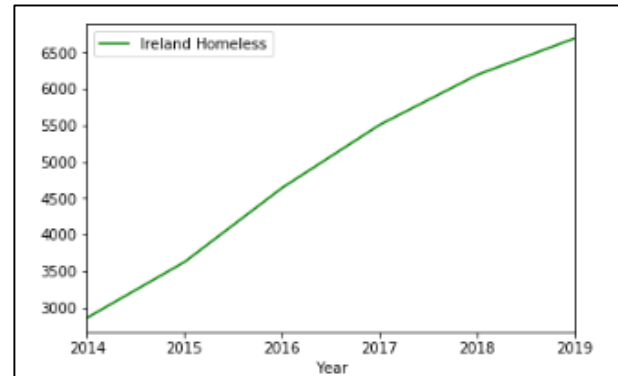
Michael O'Donohoe
Coursera Capstone Project
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Introduction

- ▶ In the last number of years, the topic of homelessness has become a political and news topic in Ireland
- ▶ The charity Focus Ireland says that there were 10,448 people homeless across Ireland at the end of 2019, and that the number of homeless families has increased by over 300% since November 2014.
- ▶ In the early 2000's Ireland experienced a property bubble during the so called “Celtic Tiger” era, followed by a property crash in the 2008 global economic downturn
- ▶ Since then the economy has recovered however rate of new house builds have not kept up with the demand resulting in fewer available rental properties.
- ▶ One of the many factors cited as influencing the availability of rental properties (and as a result homelessness) is the rise in the number of properties being used for short term rental on Airbnb. In mid 2019 the Irish government enacted the Residential and Tenancies Act 2019 place restrictions to short-term letting in Rent Pressure Zones. Registrations are limited properties rented out for 90 days or less per year.
- ▶ In this study I will analyse Airbnb rentals and homelessness in two Irish cities: (1) Dublin which is the capital and largest city in Ireland and the city in which I was born. (2) Cork which is the second largest city in Ireland and the city in which I currently live and work.
- ▶ The analysis will be used to determine if any insights linking Airbnb to levels of homelessness can be found and to understand if any properties in Rent Pressure Zones for more than 90 days per year. In addition, the foursquare API will be used to investigate venues close to the areas of high density of Airbnb listings to try to understand why these areas are popular.
- ▶ This analysis may be of interest to social scientists, local government and charities involved in providing aid to the homeless.

Number of Homeless People has doubled in Ireland 2004-2019

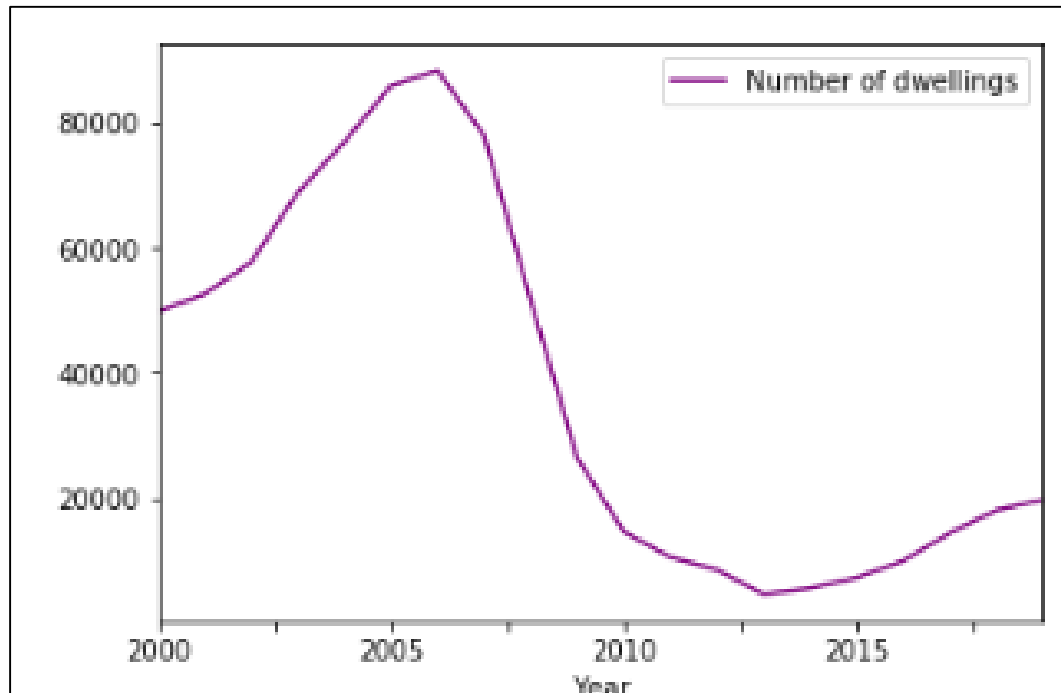
	Year	Ireland Homeless	Dublin Homeless	Cork Homeless
0	2014	2858	1868	194
1	2015	3625	2506	205
2	2016	4643	3162	258
3	2017	5508	3172	287
4	2018	6194	4175	373
5	2019	6696	4534	447



- The level of homelessness in the Republic of Ireland is about 0.14%
- there are currently 6,696 homeless people in Ireland (most of these in the capital city of Dublin)
- Number of homeless has increased by 134% between 2014 and 2019
- This increase is replicated in both Dublin and Cork Cities

New Dwelling Builds 2000-2019

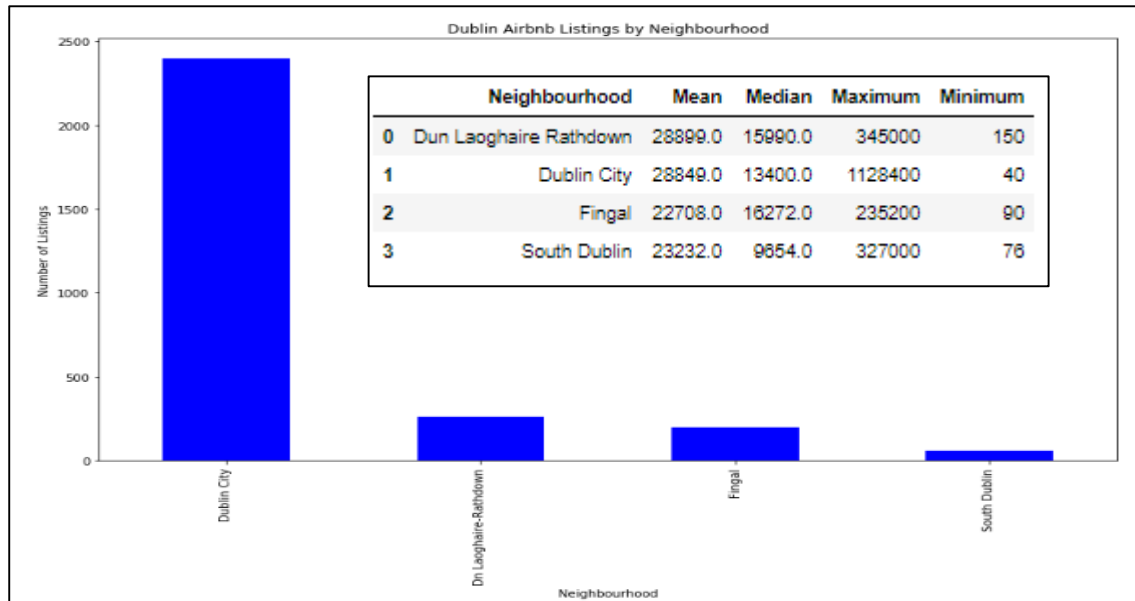
	Year	Number of dwellings
0	2000	49812.0
1	2001	52602.0
2	2002	57695.0
3	2003	68819.0
4	2004	76954.0
5	2005	85957.0
6	2006	88419.0
7	2007	78027.0
8	2008	51724.0
9	2009	26420.0
10	2010	14602.0
11	2011	10480.0
12	2012	8488.0
13	2013	4575.0
14	2014	5518.0
15	2015	7219.0
16	2016	9892.0
17	2017	14368.0
18	2018	17995.0
19	2019	19685.0



- Ireland experienced a property bubble in the early 2000's peaking in 2006
- After the global economic crash of 2008/2009, Ireland experienced a property crash and the number of new dwellings completed fell sharply reaching a low point in 2013.
- From 2014 the level of new dwelling completions began to rise slowly but supply is still insufficient to meet demand

Airbnb Listings Dublin

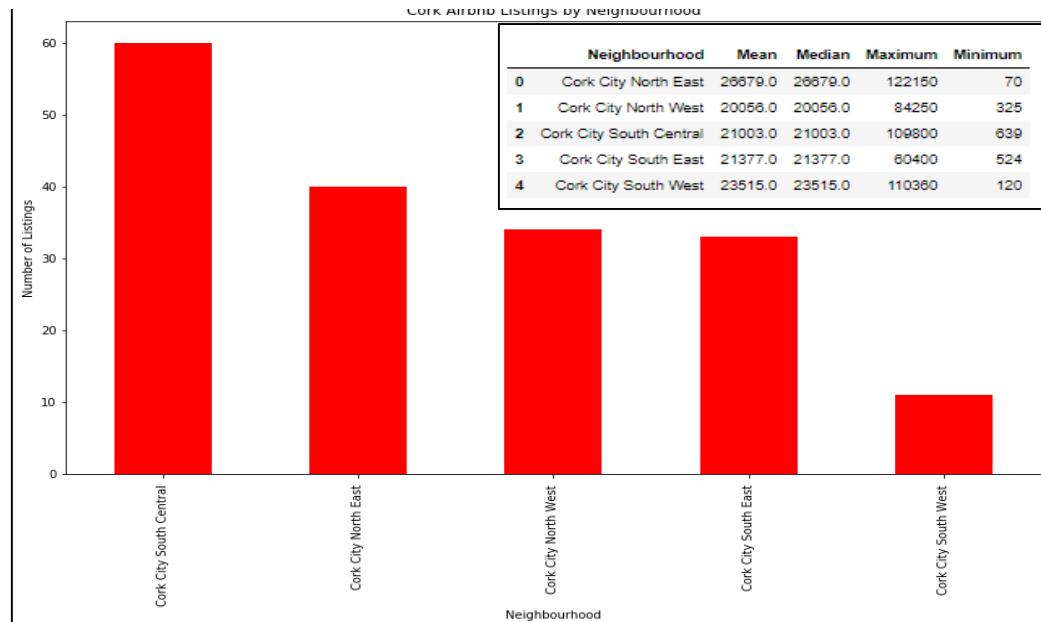
	id	name	host_id	neighbourhood	latitude	longitude	room_type	price	availability_365
0	165828	Pádraig Pearse apt. Kilmainham	790801	Dublin City	53.33830	-6.32439	Entire home/apt	147	280
1	165829	The "Michael Collins" apartment	790801	Dublin City	53.33811	-6.32259	Entire home/apt	135	267
2	200979	"The Lodge, Dalkey Avenue ."	982970	Dn Laoghaire-Rathdown	53.27420	-6.10917	Entire home/apt	220	232
3	237485	Cozy warm Annexe 10 mins to airport. total pri...	1245198	Dublin City	53.39815	-6.17458	Entire home/apt	55	225
4	275425	Luxury family home with all amenities (6 persons)	1357428	Dublin City	53.32870	-6.20921	Entire home/apt	248	33
5	292757	Old World Converted Stableyard with Swimming Pool	1515549	Fingal	53.36958	-6.34959	Entire home/apt	120	144
6	302554	Peaceful retreat for 5 - excellent location	1557844	Dublin City	53.35628	-6.28981	Entire home/apt	180	325
7	302834	Studio sleeps 2 city ctr 10 mins - Molly Malone	1557844	Dublin City	53.35581	-6.29149	Entire home/apt	100	277
8	385854	Boutique Cosy Centre Apartment	1847391	Dublin City	53.35305	-6.25708	Entire home/apt	85	178
9	374792	'Grace Gifford' cottage, Kilmainham	790801	Dublin City	53.33880	-6.32410	Entire home/apt	135	277



- There are 9,437 Airbnb property listings in Dublin.
- 2,912 would possibly be suitable for homeless people as they are full properties rather than a room in someone's home.
- The majority of these properties (2,397, 82%) are located in Dublin City neighbourhood.
- The median property earnings in this neighbourhood are €13,400
- Only 1,450 of the 2,912 properties (49.7%) appear to be complying with the new legislation of a no more than 90 days in rent pressure zones.

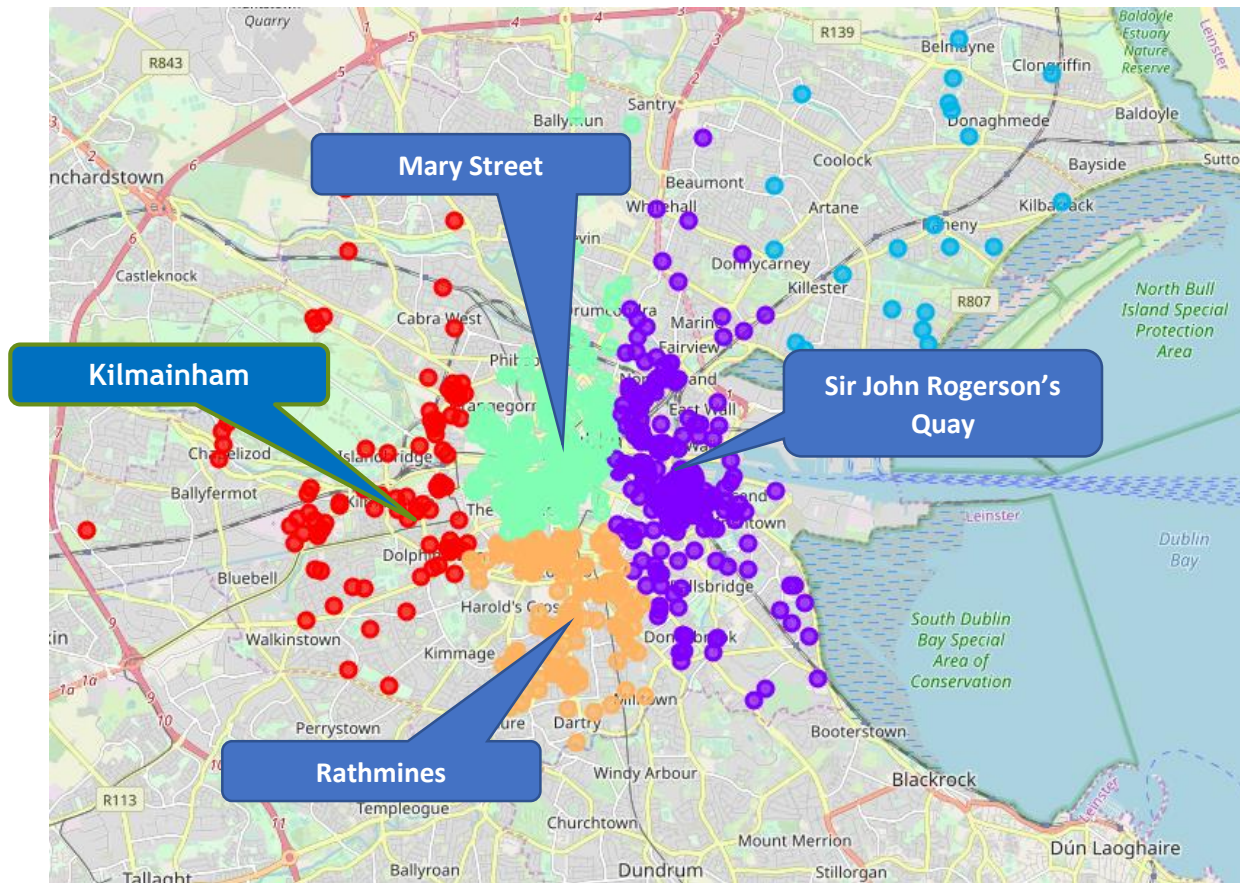
Airbnb Listings & Max Earnings Cork

	id	name	host_id	neighbourhood	latitude	longitude	room_type	price	availability_365
0	9548704	modern open plan 2 bed house	49447447	Cork City South Central	51.89126	-8.46324	Entire home/apt	125	342
1	13344373	House in Cork City centre - 3 rooms	58764063	Cork City South Central	51.88995	-8.47027	Entire home/apt	125	168
2	27196730	City centre 1 bedroom apartment own door un...	107437226	Cork City South Central	51.89633	-8.48818	Entire home/apt	85	160
3	3088179	Private Double Room Apartment in the heart of ...	193834	Cork City South Central	51.89269	-8.47284	Entire home/apt	49	184
4	24804603	One bedroom flat in listed Georgian house	907742	Cork City South Central	51.88932	-8.46825	Entire home/apt	52	90
5	38741027	Newly Built 5 Bedroom City Center Apartment	296266292	Cork City South Central	51.89623	-8.47748	Entire home/apt	400	90
6	15388361	9 Magazine rd cork city	56311866	Cork City South Central	51.88914	-8.50054	Entire home/apt	175	37
7	36666968	Gems Place - Modern Apartment.	42822025	Cork City South Central	51.88630	-8.46725	Entire home/apt	76	287
8	17311815	Cork City Centre Bright & Airy 2 Bedroom Duplex	116823097	Cork City South Central	51.89624	-8.46968	Entire home/apt	120	60
9	19499792	Self catering 'Luxury' 1, 2 or 3 bedroom Suite	136913954	Cork City South Central	51.89426	-8.49226	Entire home/apt	188	355



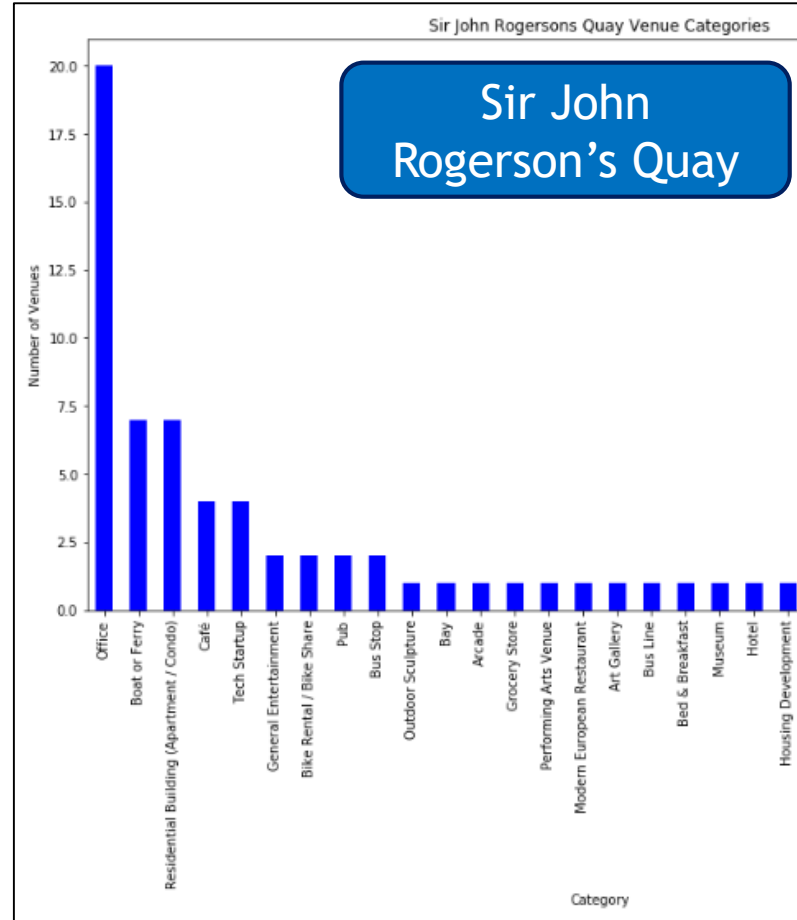
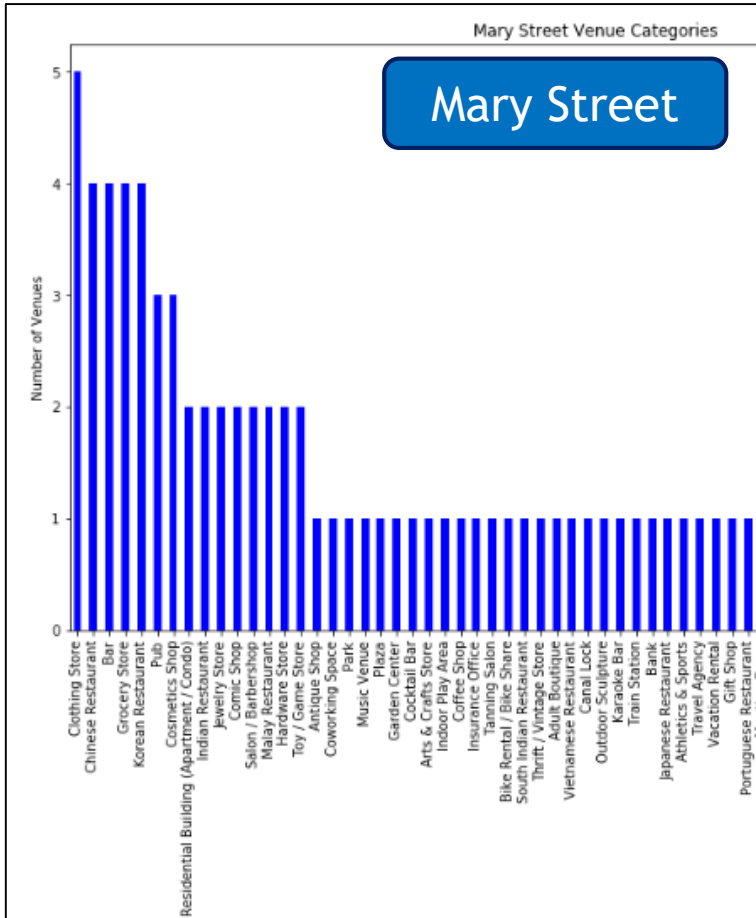
- There are 539 Airbnb property listings in Cork.
- Only 178 would possibly be suitable for homeless people as they are full properties rather than a room in someone's home.
- A slight majority of the properties are located in the Cork City South Central neighbourhood.
- The median annual earnings for a property in this neighbourhood is €21,003 if the property is fully occupied
- Only 59 of the 178 properties (33.1%) appear to be complying with the new legislation of a no more than 90 days in rent pressure zones.

Airbnb Listings Centred around four clusters in Dublin

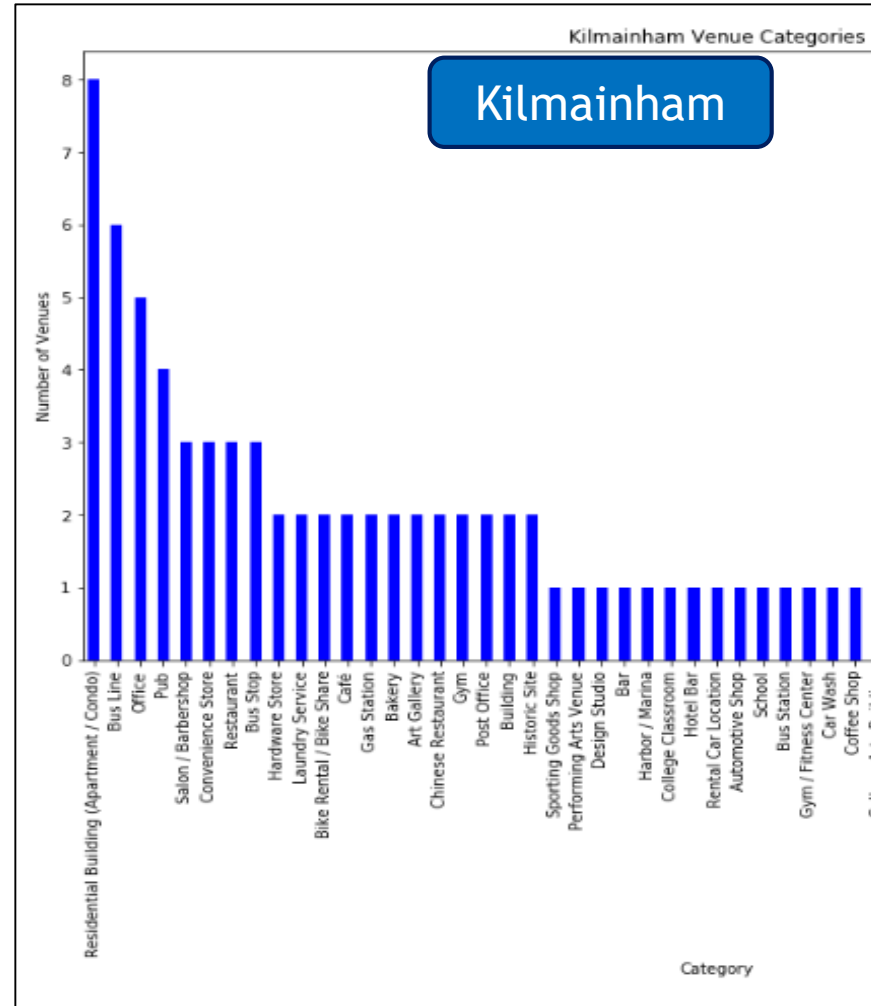
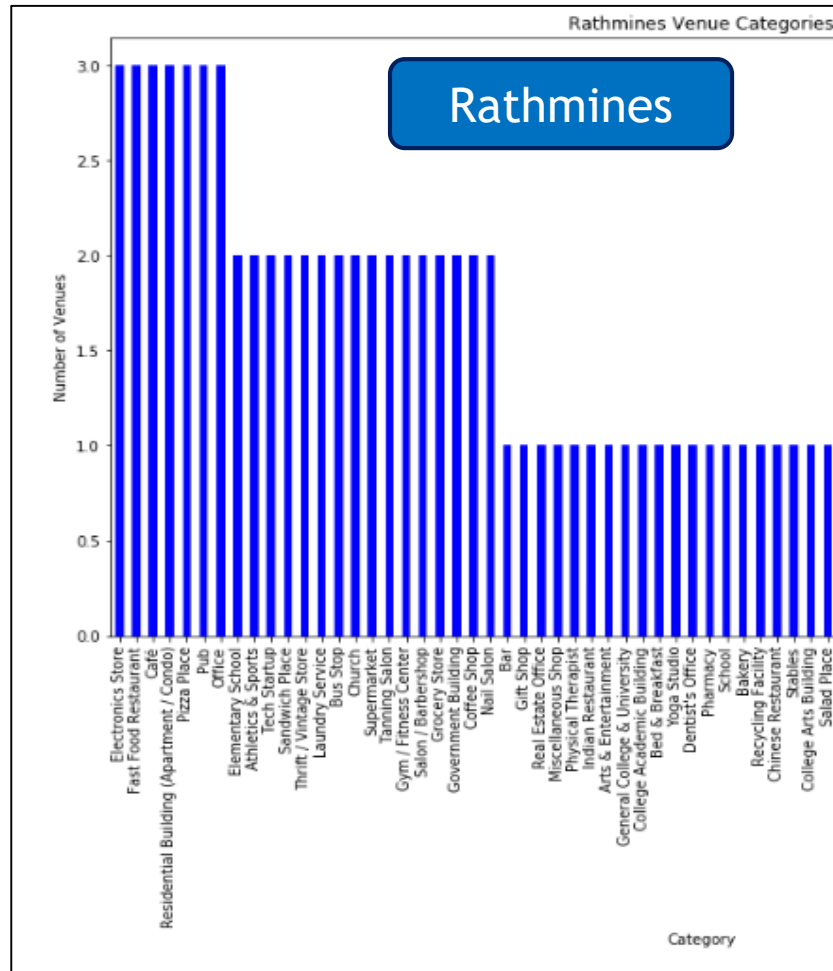


FourSquare API venues near Dublin

Airbnb Clusters



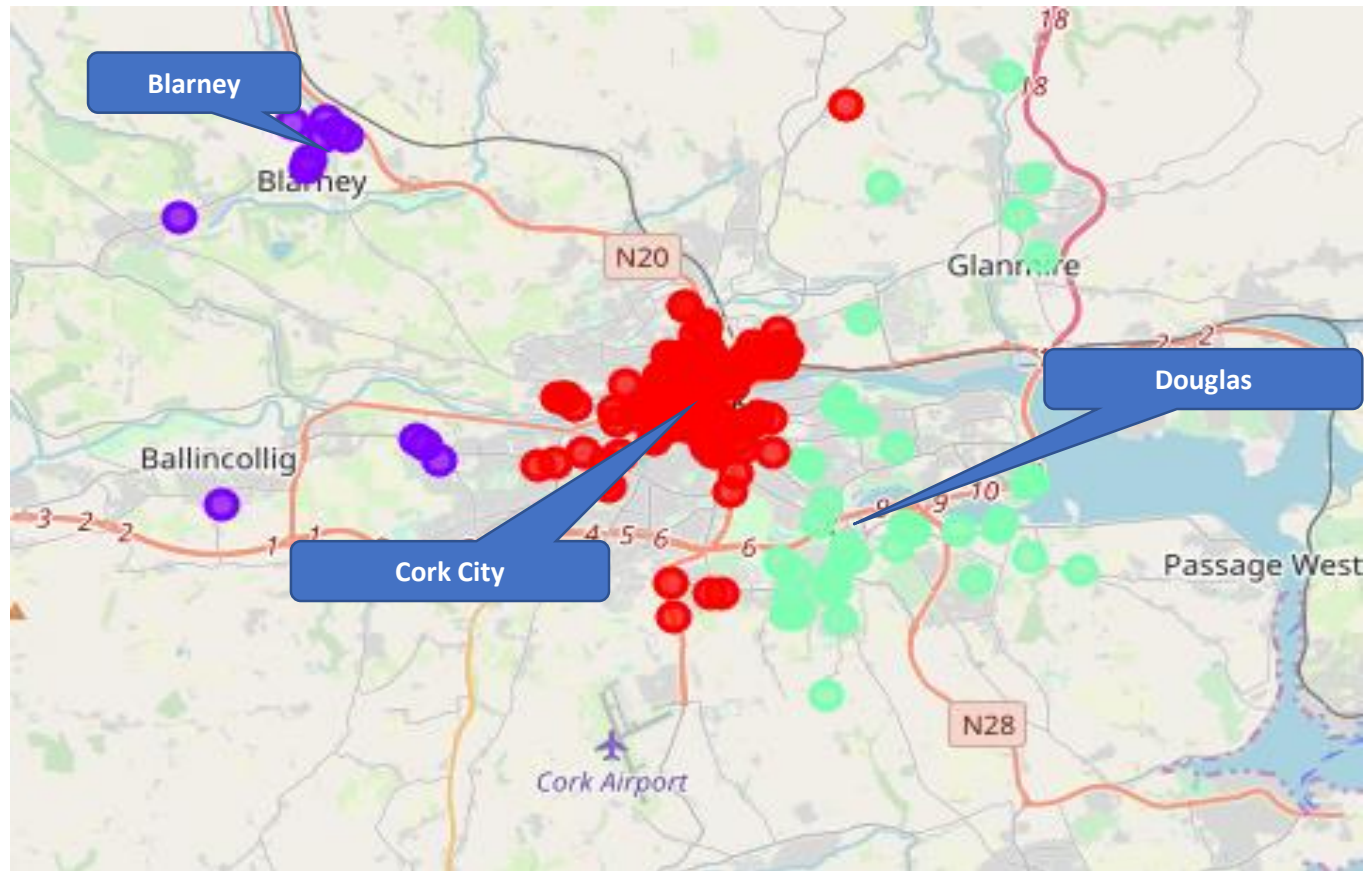
FourSquare API venues near Dublin Airbnb Clusters Cont.)



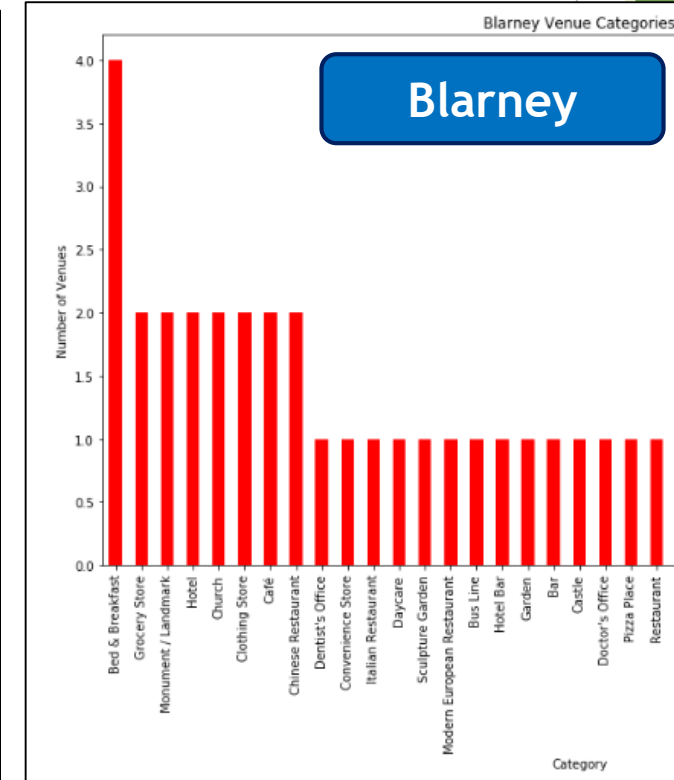
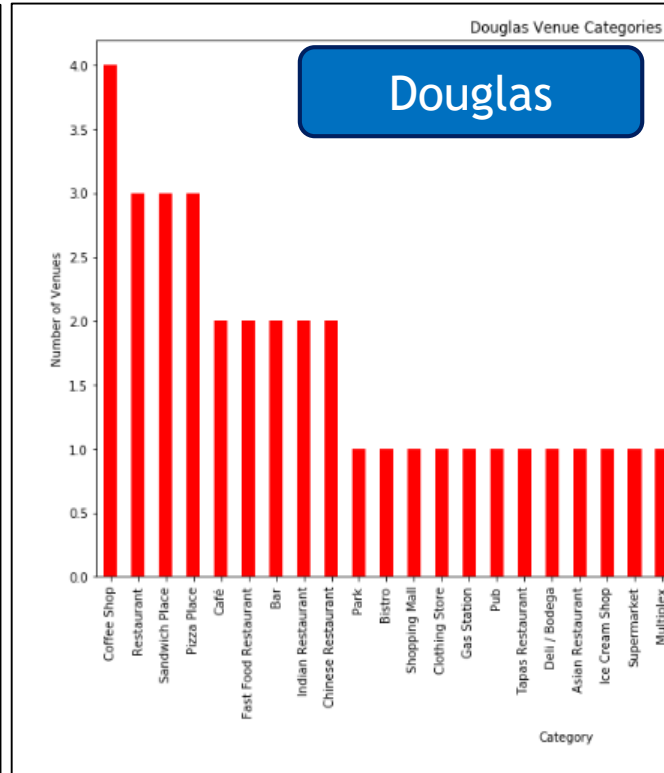
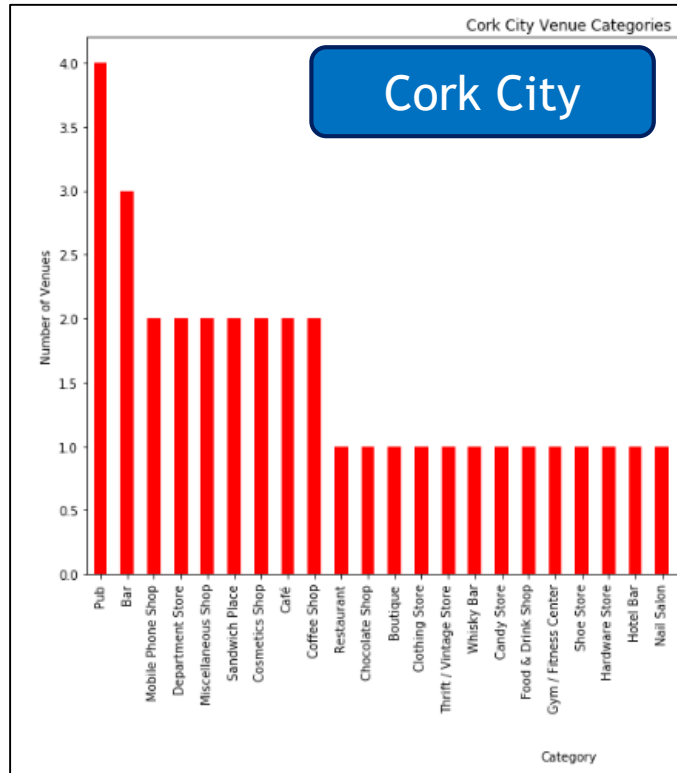
FourSquare API venues near Dublin Airbnb Clusters

Neighbourhood	Top 5 categories of Venue	Commentary
Mary Street	<ul style="list-style-type: none"> (1) Clothing Store (2) Chinese Restaurant (3) Bar (4) Grocery Store (5) Korean Restaurant 	Mary Street is located on Dublin's Northside. At Liffey Street, the street becomes Henry Street. Henry Street and Mary Street are often considered as one. This street is one of the two main shopping streets in Dublin
Sir John Rogerson's Quay	<ul style="list-style-type: none"> (1) Office (2) Boat/Ferry (3) Residential (Apartment/Condo) (4) Café (5) Tech Start-Up 	As of the early 21st century, the previously functional maritime buildings and features of Sir John Rogerson's Quay have been redeveloped for heritage tourism, and newer office buildings built on the quay. Many global technology and finance companies have offices located in this area.
Rathmines	<ul style="list-style-type: none"> (1) Electronics Store (2) Fast Food Restaurant (3) Café (4) Residential (Apartment/Condo) (5) Pizza Place 	Rathmines has a thriving commercial and civil activity and is well known across Ireland as part of a traditional "flatland" - providing rented accommodation to newly arrived junior civil servants and third level students coming from outside the city.
Kilmainham	<ul style="list-style-type: none"> (1) Residential (Apartment/Condo) (2) Bus Line (3) Office (4) Pub (5) Salon / Barber Shop 	Up-and-coming Kilmainham is a laid-back neighbourhood with trendy eating spots, traditional pubs and several popular cultural attractions. These include the Irish Museum of Modern Art, in a grand 17th-century hospital, and the Victorian prison museum, at Kilmainham Gaol.

Airbnb Listings Centred around three clusters in Cork



FourSquare API venues near Cork Airbnb Clusters



FourSquare API venues near Cork Airbnb Clusters

Neighbourhood	Top 5 categories of Venue	Commentary
Cork City	<ul style="list-style-type: none">(1) Pub(2) Bar(3) Mobile Phone Shop(4) Department Store(5) Miscellaneous Shop	Cork's compact city centre is a busy shopping district with mainstream boutiques and the 18th-century indoor English Market for organic cheese and meat. Dining options include upscale Atlantic seafood bistros and long-standing pubs that serve classic Irish lamb stew and host live folk music sessions.
Douglas	<ul style="list-style-type: none">(1) Coffee Shop(2) Restaurant(3) Sandwich Place(4) Pizza Place(5) Cafe	The sprawling suburb of Douglas is centred on a compact village with mainstream shopping malls, eclectic eateries, and pubs serving traditional Sunday lunches of roast meats.
Blarney	<ul style="list-style-type: none">(1) Bed & Breakfast(2) Clothing Store(3) Monument/Landmark(4) Chinese Restaurants(5) Grocery Store	Blarney is a village just outside the city of Cork, in southwestern Ireland. Its 15th-century Blarney Castle is home to the legendary Blarney Stone, said to give the "gift of the gab" (i.e. eloquence) to those who kiss it. Extensive parkland surrounding the castle features a network of trails, themed gardens and the large, turreted Blarney House. A 19th-century building in the village centre houses the former Blarney Woollen Mills.

Conclusion

- ▶ The cause of increased homelessness in Ireland is driven by a gap between supply of and demand for new dwellings.
- ▶ This is a legacy of a slow-down in new dwelling completions after the global economic downturn in 2008 with a low point in 2013.
- ▶ Homelessness in Ireland began to increase significantly from 2014 onwards due to a lack of supply of dwellings.
- ▶ As of 2019, the supply has not kept up with demand and the number of homeless has continued to rise. In December 2019, the Irish Prime Minister Leo Varadkar pledged to build 25,000 new homes in 2020, which seems to indicate that this is the desired target number required to keep up with demand
- ▶ Based on the analysis carried out, Airbnb listings may have a very small role to play in the number of dwellings available, however they are not the major factor as most Airbnb properties are not suitable or available for long term rentals.
- ▶ It should be noted that the cap of 90 days introduced by the Irish Government in mid-2019 was strictly enforced, then it is likely that some small number additional properties would be made available to house homeless families. It would not fix the problem.
- ▶ There appears to be a significant number of listings which do not comply with the new legislation capping short term rental properties to no more than 90 days in rent pressure zones. This may be because the dataset used preceded the implementation of the legislation.
- ▶ Further analysis of the revised 2020 datasets should be carried out to assess Airbnb compliance with the legislation, number of new dwellings and impact on the numbers of homeless people