

Tackling Disposable Coffee Cups

Key facts

Disposable cups present a growing environmental issue, including the cup and lid litter reported by Coastwatch surveyors on the shores around Ireland. The use is associated with a change of life style in urban areas, with 'coffee on the go' as visible sign and a new coffee culture at the seashore and events.

- After only a few minutes of use, the consumer is holding an empty container to put into a general waste or recycling bin.
- Single use coffee cups are hard to recycle because most are composite material of paper outer and an inner layer of plastic. (Picture 1)
- Compostable cups may seem attractive, but conditions¹ needed to compost these are onerous. Added to that -while both compostable and non-compostable cups are in use, both are thrown into the same bins, thus blocking composting.
- The latest Allegra coffee market report² (2015) predicted that the Irish branded coffee shop market would continue to grow. 'Ireland is becoming a nation of coffee drinkers'.
- Starbucks use disposable cups. Ireland has the largest number of Starbucks per inhabitant³ in Europe (15.3 Starbucks per 1 million)
- There is a lack of data on single use drinks packaging waste in Ireland. The '2 million disposable coffee cups sent to landfill sites in Ireland every day'⁴ is widely used but the base is unclear and one would assume that much of it is sent to the new incinerators. Requests for information on disposal yielded little information.



Picture 1: After soaking the single use cup which looked papery... one can rub off the paper and see the plastic.



Picture 2: Public bin content

Coastwatch Street Observations of Drinks Habits in Dublin

Coastwatchers therefore decided to gather some factual data in a pilot survey on cup use. A project team was formed and volunteers⁵ observed 4290 passers-by and the various drinks containers they were carrying, at entrances to Trinity College Dublin and in O'Connell street.

When: Feb 5th – 9th Feb 2018, morning on O'Connell Street, lunch time at Trinity College Dublin.

How: volunteers working in pairs took up their position in well walked areas, at entrances to TCD – see pic 3. They recorded time and using clip boards to jot down numbers, counted:

- The number of people walking past
- The number of these people carrying a disposable cup
- The number of people carrying a plastic bottle or can
- The number of people carrying a flask or a reusable cup

Picture 3: count station Nassau street entrance

Count Accuracy: On two occasions volunteers were joined by a third to carry out a parallel count for 200 and 400 passers-by. No difference in single use cup counts was seen, but 4-5% difference in bottles and flasks, with the new volunteer seeing less than the experienced counter. We deduce that our single-use cup count is accurate because they are easily noticeable with people carrying them in their hands, while the count of both plastic bottles and flasks is likely to be an underestimate,



¹ They need >60°C, the right humidity (>80%), the right micro-organisms not standard compost heap biota.

² <https://www.dublininquirer.com/wp-content/uploads/2016/06/PC2015Ireland-Press-release-WCP-Final.pdf>

³ <https://www.silverdoorapartments.com/blog/which-country-has-the-most-starbucks-per-1000000-inhabitants/>

⁴ <https://www.irishtimes.com/news/ireland/irish-news/cork-city-becomes-first-council-to-stop-using-disposable-cups-1.3351827>

⁵ Roslyn Shaw, Michael Walsh, Karin Dubsky and Antoine Warrant



as people can have them tucked into their bags and either not visible, or barely visible. Bearing in mind these limitations, results of the pilot survey are summarised overleaf.

Drinks container usage on the streets and outdoors in TCD

In a Coastwatch survey of drink container use, a total of **4290** people were observed over 5 days (5th-9th of February 2018) in Dublin. Of these **236 (5.5%)** were carrying a disposable cup, **217 (5.1%)** were seen carrying single use plastic bottles or cans and only **124 (2.9 %)** were seen carrying reusable cups or flasks.

So more than **2/3rd** of people seen carrying a drinks container had a disposable one - see fig 1.

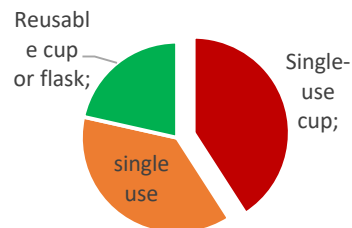


Figure 1: Number of people carrying different drink containers ; N=4290

In Trinity College Dublin:

Volunteers counted **3249** people passing them at Nassau Street, Science Gallery and 'Moyné Institute entrances, **4.9%** of these were carrying disposable cups, **5.9%** were carrying plastic bottles and **3.1%** a flask or a reusable cup - see Figure 2. The number of people entering varied greatly between entrances, the average flow rate was 37 people/min.

In O'Connell Street:

Volunteers counted **1041** people passing on 5 mornings between 9 and 10am. Out of this total, **7.4%** were carrying disposable cups, **2.4%** were carrying plastic bottles and **2.2%** a flask or a reusable cup – see fig 3. The average flow was 12 people passing per minute.

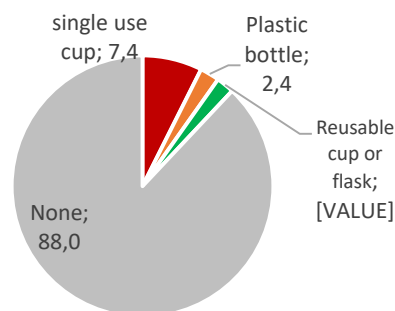
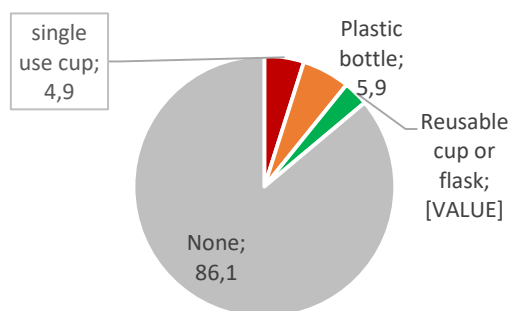


Figure 2: Percentage of people walking with/without drink containers: TCD (left), O'Connell St. (right)

In all sample sites within TCD and in O Connell street, single use cups outnumbered reusable cups and flasks combined. A break down by location showed that people using the TCD Science Gallery Entrance (N = 730) carried the most single use drinks containers (9.1 % carried single use plastic bottles, 6.1% carried disposable coffee cups) but also carried the most reusable cup/flasks (5.5%). Difference between TCD and O Connell street may be due to time of day and/or location and should be borne in mind in future surveys.

Recommendations and Measuring Progress:

- **Government:** introduce a '**latte levy**' this year- i.e. a charge on single use cups and lids which the consumer pays when buying a beverage in one. The money collected goes into the Environment Fund like the plastic bag levy. The tax encourages the consumer to bring their own reusable cup and supports shops which offer their drinks in traditional long life cups.
- **Shops/cafes** use **traditional cups** and/or offer a **discount** to those bringing their own mugs. Conscious cup campaign⁶ lists where discount is offered. In TCD 'the Perch' offers the best discount 40c/cup.
- **You and people you can persuade,** get and show off your **reusable cup/flask** if you need coffee on the go. There is a super selection out. Think of material, function and design - including leak proof.

Set Goals and Measure Progress: e.g. can the TCD community invert its cup use ratio over 2 months:

⁶ <https://consciouscup.ie/map/>



5 single use cups: 3 reusable cups/flasks → 3 single use cups : 5 reusable cups/flasks.

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