

Instruction: Step-by-Step Guide

(i) Identification of School Data Zone

The Data Zone (DZ) is a statistical output geography and a new geography specific to the 2021 Census data. There are on average 500 people in a data zone, and it is the lowest geography for which statistics can be generated (<u>Appendix 1</u>).

ILLUSTRATIVE MAP - Data Zones in NI (n=3780)



Data Zones (Census 2021) | Northern Ireland Statistics and Research Agency (nisra.gov.uk)

Each school sits within **one** Data Zone (DZ). Knowing the DZ within which the school of interest is located is essential in generating statistics to build a Community Profile using NISRA's Flexible Table Builder (FTB). The DZ is the smallest NISRA geography and each DZ has a unique identifier code. The Data Zone code can be identified without the need for GIS technology, using readily available online tools including <u>Schools Plus</u>, <u>Google Maps</u>, and <u>NISRA Area Explorer</u>. The steps in the following pages will demonstrate exactly how to do this using both a *location services* option and a *manual* option. The school randomly selected for illustration purposes in the *manual* STEP-BY-STEP process is:

ABBEY PRIMARY SCHOOL, 90 Movilla Road, Newtownards, Co Down, BT23 8RQ

In identifying the school's DZ you will also identify the Super Data Zone (SDZ) and District Electoral Area (DEA). These are higher geographies, the specifics of which are also needed to generate related statistics using NISRA's FTB. The SDZ, as a larger statistical geography, combines multiple DZs, while the DEA is an important administrative geography designed for governance. In NI there are 3780 DZs, 850 SDZs and 80 DEAs (<u>Appendix 1</u>).

Once you know the DEA, SDZ, and DZ for your school, this won't change, unless your school location does, or the administrative or statistical boundaries are redefined! So, essentially, the process to ID the School Data Zone (and related geography) is a one-off activity. You can then simply feed the school's DEA, and SDZ and DZ codes into NISRA's Flexible Table Builder (FTB), as detailed in the <u>FTB</u> <u>Community Profiling</u> module of this instructional series, to get relevant data for your school locality across a wide range of variables.

Guidance is also provided in this instruction on using DZs to capture the school catchment area, as it is likely that this extends beyond the singular data zone within which the school is located.

Options

There are two options in identifying your school's DZ and related geography.

OPTION 1 – Location Services (pg 3)

Criteria:

- Location services enabled on laptop/desktop
- Present (or laptop present) at the school's location

OPTION 2 - Manual (pg 16)

Manual identification provides an option for Principals, Governors, and school staff who do not meet criteria under option 1. It also provides an option for researchers and school support staff interested in data for a wide range of schools where they are not present to use location services or when they do not have location services enabled.

OPTION 1 – Location Services

1. Access Interactive Map and related content

(a) Open the <u>NISRA Area Explorer</u> application and *click* on school's Local Government District (LGD) or council area. In this example it is Armagh City, Banbridge, and Craigavon.

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(b) The following screen will be displayed, showing population and number of households for your selected LGD, and an interactive map.

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(c) Scroll down to fully display interactive map onscreen.



Note: Information about your selected geography (in this case Armagh City, Banbridge, and Craigavon LGD) is shown to the right of the map. It includes the geography *above* is parent, and the geography *below* is District Electoral Areas (DEA).

2. Find your location

(a) *Click* on the compass-like icon at the top right-hand corner of the interactive map. A small 'darker' blue dot will appear at your current location (which should be at your school), within a much larger 'lighter' blue circle.

Note: When you hover the cursor over the compass-like icon, a Find my location label will be displayed onscreen.



3. Identify District Electoral Area (DEA)

Hover the cursor over the darker blue dot. A bordered area of the map around the dark blue dot will appear darker and a label will appear onscreen – this is the **District Electoral Area (DEA)**, and in this case it is CUSHER. Now *Click* on darker blue dot.



4. Identify Super Data Zone (SDZ)

Hover the cursor near the blue dot. The bordered area around the blue dot will appear darkened and a label will appear onscreen – this is the **Super Data Zone**, and in this case, it is Cusher_E. *Click* on blue dot again.



5. Identify Data Zone (DZ)

Hover the cursor near the blue dot. The bordered area around the blue dot will appear darkened and a label will appear onscreen – this is the **Data Zone**, and in this example, it is Cusher_E3.



Note: You have now identified all the geographies (LGD, DEA, SDZ, and DZ). <u>Take a note of these</u>. You will need them to feed into NISRA's Flexible Table tool to generate a community profile for your school.

Search Tip: Once you know the DEA, SDZ, and DZ within which your school is located, you can:

(a) *click* on the *hyperlinks* to the right of the map for quick access to your geography of interest *or* (b) use the *search* facility 'Search for your area' at the top right of screen (LGD, DEA only).

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School Catchment Area: It is highly likely that the **catchment area** of a school will extend beyond the immediate local community or data zone within which the school is located, with extent related to school phase ie primary or post-primary. A school's catchment may also be directionally skewed if the school sits at the boundary of a data zone. It can therefore be useful to understand the **current** school catchment area and related demographics, as well as **potential** opportunities using the data zone statistical geography. An ability to identify data zones such as those surrounding the school (general) and those which refine the school's local community or catchment area based on local intelligence can help build current and future statistical profiles, supporting vision, and ultimately school sustainability. **Steps 6** and **7** will show you how to identify and map data zones around your school, and **Step 8** will show you how to build a catchment area profile, using the interactive map in NISRA's area explorer.

6. Identify Data Zones around School Data Zone

(a) *Hover the cursor* over any of the DZs adjacent to the school's data zone of Cusher_E3 (bordered in pink). In this example, the first data zone selected is Cusher_E4.



Note: Zoom in and out using+ and – toggles on top right-hand corner of map. Zoom in (+ toggle) to see more map detail or zoom out (- toggle) to see more of the map at any one time.

(b) Continue to *hover* the cursor in each of the DZs adjacent to the border of the school's DZ of Cusher_E3. The next DZ in this example, moving in a clockwise direction, is Cusher_E5.



(c) Work your way round the DZs bordering the school data zone until you have identified them all. The next DZ is Armagh_B2.



(d) Then Armagh_A6



(e) The final DZ bordering the school DZ is Portadown_J5.



7. Map adjacent DZs

Mapping the DZ geography for your school can be useful in contextualising the generated data as part of the community profile.

(a) In <u>NISRA Area Explorer</u> take a *Screenshot* (press *fn* and *prt sc* keys simultaneously) of interactive map with school DZ selected (in this case Cusher_E3), *right click* in Word document or PowerPoint and *paste* using picture format option.

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(b) *Activate* screenshot by *clicking* on it, then *click* on Picture Format (in blue) on the text ribbon at top of screen.



(c) *Click* on Crop on the formatting ribbon to the right of the screen.



(d) Resize handles will appear. *Hold left click* and *drag* handles to crop the map, removing the unwanted surrounding areas from the screenshot.

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Page 11 of 28 1912 words 🛛 Text Predictions: On	🔀 Accessibility: Investigate		(b) Focus

(e) *Annotate* the map with DZ labels by *inserting* text boxes and labelling each DZ with a number (and legend) or full label text (eg Portadown_J5).



The adjacent DZs to our example of Cusher_E3 are: ¹Cusher_E4, ²Cusher_E5, ³Armagh_B2, ⁴Armagh_A6, and ⁵Portadown_J5.

8. Identify and profile current/potential catchment area

The school's current and/or potential catchment area can be mapped by identifying DZs beyond the school's data zone and bordering DZs using **Step 5** and **Step 6** of this instruction, and <u>NISRA Area</u> <u>Explorer</u>. It is anticipated that the inclusion of DZs to refine the school's community border to one which is more reflective of the school's catchment area will be based on your school's intelligence both in terms of where your pupils are drawn and/or from where you would like pupils to be drawn.

(a) Example

The example below identifies densely populated DZs within an urbanized area up to a half of a mile from the school, extending the school's community border to reflect the current catchment community and/or potential catchment. However, it is of note that the school in this example sits close to the border of a larger (land size not population) more rural data zone to the North of the school. The flow of pupils (actual or future) from this DZ, and those rural DZs east and west of the school therefore should also potentially be considered in refining the school's community border. This demonstrates the need to fully understand the school's geography, and the usefulness of data zones as building blocks for tailored community borders and data-driven decisions.

Religion – Urban (mean population density = 22.9/ha) (Data Zones ≤0.5mile to the west of Rowallane_A2. Includes Rowallane_A1, A3, B1, B2, B3, and B4.)



School

In our example, combining the identified DZs extends the community 'border' beyond the pinkbordered data zone of the school, building a more realistic representation of the school's current (or potential) urban community or catchment.

(b) Profile

A newly 'bordered' community based on combining DZs relevant to catchment can be profiled using the **community profiling** <u>instruction</u>. This would similarly involve capturing data from NISRA's FTB for each of the identified DZs, for the variable of interest. The data for each DZ can be summed for the variable of interest, by category. For example, for the religion variable, Catholic, Protestant, Other Christian (including Christian-related), Other Religions, and No religion/not stated would represent categories. These category totals can then be calculated as a percentage of the overall total, and charted, to provide a profile of the 'redefined' community, based on DZ combining. In the case of the variable for School Age Children, absolute numbers rather than percentage values can be used. Knowing the absolute potential numbers for school enrolment within a catchment area can help to inform realistic expectations or opportunities, and related activities.

Conversation Starter?

As seen in the <u>Community Reflection</u> worked example, a visual response to the question 'does my school reflect the local community', using religion as an example, can be gained by comparing the newly defined local community (generated by combining multiple data zones), and the school's data zone, with school census data for religion from <u>Schools Plus</u>.

(c) Application

Catchment area analysis can be particularly useful if for example, there is concern:

- (i) about the current catchment area in terms of pupil enrolment figures
- (ii) that the school reflects its community

For further illustration of utilising data for basic catchment area analysis, see the <u>Sustainable Schools</u> worked example.

9. Area Demographics

Statistical information can be explored for 13 NISRA pre-selected variables from NI to DZ geography levels within <u>NISRA Area Explorer</u>. The geography for which the data is displayed is shown at the top of the screen. Geographies can be selected by *clicking* the area of interest on the interactive map.

(a) *Scroll* down to the variables listed below the interactive map. *Click* on the down arrow (v) to the right of the grey bar for any listed variable of interest.

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Note: To create bespoke charts and visuals for a wide range of variables across geographies, including school age population, and parent qualifications, follow the step-by-step <u>instruction</u> for <u>NISRAs Flexible Table Builder (FTB)</u>.

(b) This opens a window of charts for the selected geography. Once opened, the arrow changes to an up arrow (^). *Click* on the up arrow (^) to close the chart window. Continue to explore statistics across variables and selected geographies of interest.

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OPTION 2 - Manual

1. Find full school address details

(a) Open <u>Schools Plus</u> database, *enter* school name in search facility, *scroll* down until you find school, and *click* on the Reference Code. In this example we are using Abbey Primary School.

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321-0313	Abbey Community College	NEWTOWNABBEY	Secondary	Open
401-6399	Abbey Primary School	NEWTOWNARDS	Primary	Open
301-0862	Abbots Cross Primary School	NEWTOWNABBEY	Primary	Open
501-1594	Abercorn Primary School	BANBRIDGE	Primary	Open
401-6201	Academy Primary School	SAINTFIELD	Primary	Open
306-6568	Acorn Integrated Primary School	CARRICKFERGUS	Primary	Open
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(b) The following screen will appear with the school's full address details. This page also functions as a portal or access point to *school census* Statistical Information. To view, *click* on statistical information.

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Tip: Selecting the Religion tab, for example, provides data for the academic year. This can be used to compare the school community with the local community at data zone level, as well as catchment area level by combining multiple data zones, as in the worked example <u>Community Reflection</u>.

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2. Familiarise with school location

Open <u>Google Maps</u>. Type name of school and town eg Abbey Primary School Newtownards into search facility. Close search and *click* anywhere onscreen to clear any open windows. *View map* and *familiarise* with area around the school including landmarks, street layouts, and main roads.



3. Identify Local Government District (LGD) for school

Open <u>NISRA Area Explorer</u> and *click* on the Local Government District (LGD) or council area within which the school of interest is located. In this example, the LGD is Ards and North Down.



4. Identify District Electoral Area (DEA) for school

The following screen will be displayed, showing population and number of households for your selected LGD, and an interactive map.



If you know the DEA in which the school is located, *select* it from the listing to the right of the interactive map. Alternatively, *click* on the area of the interactive map. The DEA label will appear as you *hover* the cursor over each bordered section within the pink-bordered LGD area.

The following screen will be displayed, showing the DEA (in this case Newtownards) and statistics for the area.



If you are unsure of the DEA in which the school is located, then:

(a) Identify the general location of the school within the LGD view of the interactive map, based on common knowledge of the geography.

(b) *Hover* the cursor over the selected area. A named DEA will appear. In this example, it is **Newtownards**. This is the identifier for the DEA. *Click* on the DEA in the LGD view to show the interactive map view of the DEA, as shown on pg20.

Tip To confirm your selected DEA, zoom (+), view map and identify the Road the school is on. In this example the road is Movilla Road and it can be viewed on the map by *applying 2 zooms* (+) and *moving map* to the left (*hold left click* and use mouse or trackpad to move map across to the left). You will see Movilla Road on which the school, in this example, is located. If, as in this case, the road the school is located on extends into another DEA, toggle between Google maps and NISRA's integrated map to check the landmarks and the school's location on Google maps, and locate the school on the NISRA Area Explorer integrated map (**Figure 1**). Check the school is within the boundary of the selected DEA. In the example it is seen to sit to the left of the boundary (encircled).



The zoomed views below demonstrate the usefulness of landmarks and the physical representation of the school. **Note** the distinctive school layout/shape, and street network to the left of the school.

Figure 1 – Toggle between views in Google Maps and NISRA Interactive map to identify school





Google Maps

NISRA Interactive Map

5. Identify Super Data Zone (SDZ) for school

(a) Click on DEA (Newtownards), zoom (+), view map and identify the Road the school is on. In this example the road is Movilla Road and it can be viewed on the map by *applying 2 zooms* (+) and *moving map* to the left (*hold left click* and use mouse or trackpad to move map across to the left). You will see Movilla Road on which the school is located. The school itself can be located on the interactive map by toggling between the interactive map and Google Maps (see **Figure 1**, pg 20). *Hover* the cursor in the boundaried area that contains the school – it will display darker pink and reveal the SDZ label. In this case the identifier for the SDZ is **Newtownards_H**. *Click* on the highlighted pink area labelled Newtownards_H.



(b) The interactive map will display the SDZ, Newtownards_H. Statistics related to the SDZ are also displayed on this screen.



6. Identify Data Zone (DZ) for school

(a) Locate Movilla Road and the school within the pink-coloured SDZ on the interactive map. *Hover* the cursor in the boundaried area that contains the school - it will display darker pink and reveal the DZ label. In this case the identifier for the DZ is **Newtownards_H1**. *Click* on the darker pink area labelled Newtownards_H1.



(b). The interactive map will display the DZ, Newtownards_H1. Statistics related to the DZ are also displayed on this screen.



Note: You have now identified all the geographies (LGD, DEA, SDZ, and DZ). <u>Take a note of these</u>. You will need them to feed into NISRA's Flexible Table tool to generate a community profile for your school. See **Search Tip** on pg6.

7. School Catchment Area

Follow Steps 5-8 (pgs7-14) under Option 1 Location Services to identify and profile current/potential school catchment area.

8. Area Demographics

Follow Step 9 (pg15) under Option 1 Location Services to explore NISRA pre-selected area demographics.