

EDP02 Analysis Examples

UCAS

Introduction

In this document are various examples of how the data in the EXACT outputs, contained in EXACT Data Pack 02 (EDP02), could be used. This includes information about any data manipulation required. Please note that the apply centre data included in these examples (for Apply Centre A, Apply Centre B etc.) has been created using random sampling to ensure the data is anonymised. Therefore, exactly recreating the associated figures for these would not be possible, but the methods used can be replicated to produce similar results. The apply centre data contained in EDP02 is designed to provide information about where applicants come from, and the following analysis examples provide an in depth view on how to analyse the data depending on specific research requirements or criteria. Each example explains the primary aim or outcome of the analysis, and has been approached as though a provider is using the EDP02 outputs to use data as a useful tool in their decision making processes, such as for strategic planning or recruitment decisions.

This approach has been chosen to demonstrate how it is possible to use multiple data sets to obtain the required information, and as much analytical value as possible. This is only one of many potential methods. For example, you may want to group multiple apply centres to be examined together as a single group, or use some of the data to provide a single statistic or observation. Of course, all outputs can be freely examined as you see fit, and these examples are used to demonstrate potential uses, rather than UCAS' interpretation of your required uses. This document will examine how this data pack could be used with regard to:

- Which apply centres have the highest number of high achieving (ABB+) applicants from areas with a low level of young participation rates in Higher Education?
- Where do applicants of a desired academic strength come from, and does this change for different qualification types?
- Which apply centres have the highest (and/or lowest) proportion of applicants applying to providers in a certain UK region?

Example 1 – EDP02_06_POLAR_ABB Equality – POLAR3 Quintile

Suppose you wish to examine; **which apply centres have had the highest number of ABB+ applicants, from a POLAR3 Quintile 1 or 2 background?** Initially, those in the area local to you as a provider, located in Yorkshire and The Humber in this case, will be considered, as these applicants are under-represented at your provider. First of all, EDP02_AGG_06_POLAR_ABB is filtered to POLAR3 quintile 1 and quintile 2 applicants only, and sorted by the number of these applicants over the previous five aggregated application cycles. Then, the output is also filtered to consider apply centres which you have determined to be in your local catchment area. Figure 1 shows the four apply centres with the largest number of POLAR3 quintile 1 or quintile 2 ABB+ applicants, and the number of applications, applicants, and acceptances for this cohort, from each apply centre

| Apply Centre | ABB+ Applicant | Total number of applicants | Total number of applications | Total number of acceptances |
|----------------|----------------|----------------------------|------------------------------|-----------------------------|
| Apply Centre A | ABB+ applicant | 485 | 2250 | 425 |
| Apply Centre B | ABB+ applicant | 360 | 1665 | 320 |
| Apply Centre C | ABB+ applicant | 450 | 2025 | 390 |
| Apply Centre D | ABB+ applicant | 385 | 1695 | 330 |

Figure 1. POLAR3 Quintile 1 and 2, UK domiciled, ABB+ applicants, applications and acceptances by apply centre (Year 1 - Year 5).

The above information is then used to define the scope for further analysis, selecting the appropriate four apply centres. Using EDP02_06_POLAR_ABB, and subsetting to include these apply centres, POLAR3 quintile 1 or 2, ABB+ applicants, and application cycles from Year 1 onwards allows Figure 2, showing the number of applications by apply centre for the last five application cycles, to be produced.

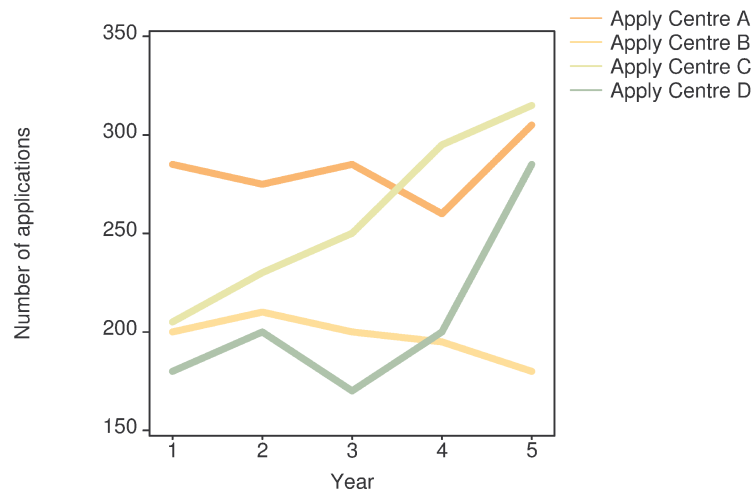


Figure 2. Number of applications by apply centre for ABB+ Quintile 1 or 2 applicants

Figure 2 shows that Apply Centres A, C, and D have all had an increase in applications from the relevant cohort of applicants, compared to Year 1. Although Apply Centre B has seen a fall in applications since Year 1, the decrease is relatively small.

Following this, Figure 3 is produced in the same manner, but replacing the number of applications with the number of applicants to indicate the size of the potential cohort. This allows the following analysis to be more relevant as it relates specifically to the number of applicants in the appropriate cohort and, therefore, provides an indication of the number of similar applicants which may apply in future application cycles, not allowing for any changes to the cycle such as overall variations in the number of total acceptances, or other external factors. Figure 3 shows similar trends as those in Figure 2.

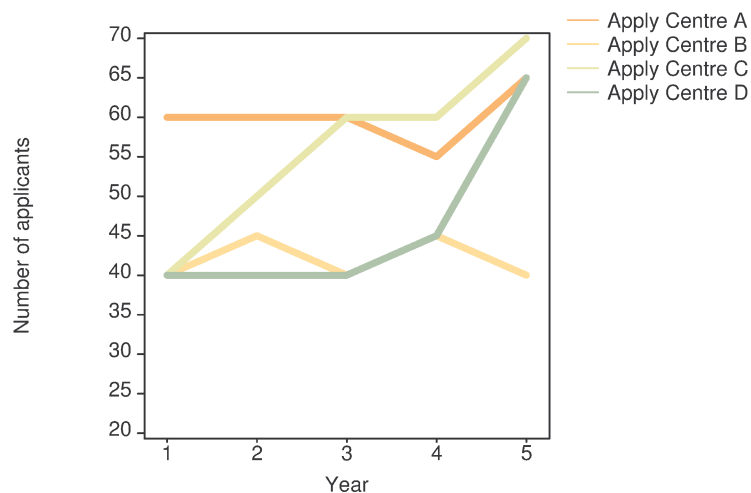


Figure 3. Number of applicants split by apply centre for ABB+ Quintile 1 or 2 applicants

To this point, the apply centres have been determined by the number of applicants over the previous five application cycles, and considering those within a local area. This approach, although helpful due to the relevancy of local recruitment, may only provide part of the required information. The filtering to this subset of apply centres can be removed to broaden the scope of this analysis.

Using the same technique as above, EDP02_AGG_06_POLAR_ABB is filtered to POLAR3 quintile 1 and quintile 2 applicants only, and sorted by the number of applicants over the previous five aggregated application cycles. Including apply centres A to D, for reference, it is then possible to plot Figure 4 which includes Apply Centre E and Apply Centre F, the two apply centres with the largest number of applicants for the relevant cohort, using the same criteria as that for Figure 3. Of course this is possible for any number of apply centres, as you see fit.

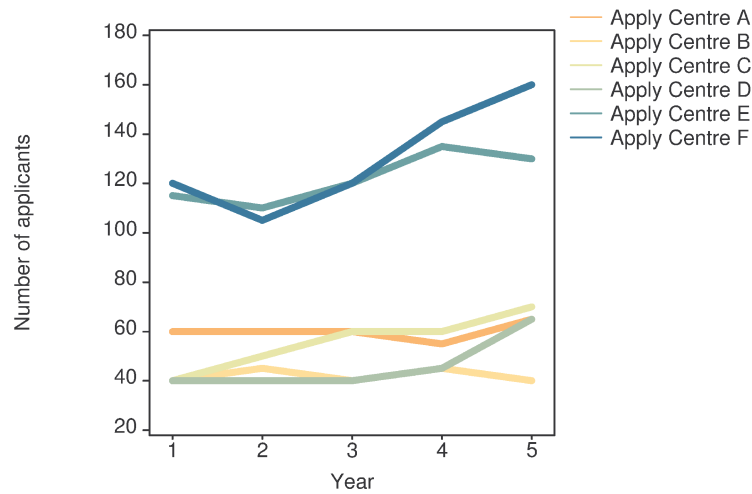


Figure 4. Number of applicants split by apply centre for ABB+ Quintile 1 or 2 applicants

Figure 4 shows that Apply Centre E and Apply Centre F have both had an overall increase in the number of applicants from the relevant cohort, compared to Year 1, which is the case for total figures at a national level. This graph indicates a much larger number of potential applicants within the targeted cohort. The location of each apply centre is also important, as decisions about planning, recruitment, outreach, and other areas could be affected not just based on the potential gain in applications from targeted applicants, but also in the viability of the activity itself. In this case, one way of examining the potential benefit versus additional expense could be in terms of the location of the apply centres, as outreach activities may be more resource intensive for those which are a further distance from you, as a provider. The above data can then be used in combination with the school address lookup file to obtain a geographical view of where the larger apply centres are located.

Figure 5 displays each of the above apply centres by location to allow a more visual view of the data. The method used for doing this will vary depending on the analysis software being used. In most cases, this can be accomplished by using the supplied school address lookup in combination with the output data file to obtain the necessary values such as the apply centre name and apply centre postcode to allow apply centres to be plotted by location. In addition to this, your chosen analysis software will require some method of producing maps, such as the one in Figure 5, to allow the data to be overlaid as appropriate. Depending on certain functionality, it may be relevant to also include statistics, such as the number of acceptances, in the combined data set which includes both apply centre name and postcode, for example, as you may wish to plot by apply centre size (in terms of the statistic used), as below.

To produce Figure 5, a data set was constructed to replicate the data contained in the supplied school address lookup file. This was then combined with the data set containing the anonymised data for the mock apply centres A–F. In this case, the size of the star for each provider depends on the number of applicants from that apply centre for POLAR3 quintile 1 or 2 ABB+ applicants in Year 1 (as indicated in Figure 4, the star for Apply Centre F is the largest in size).

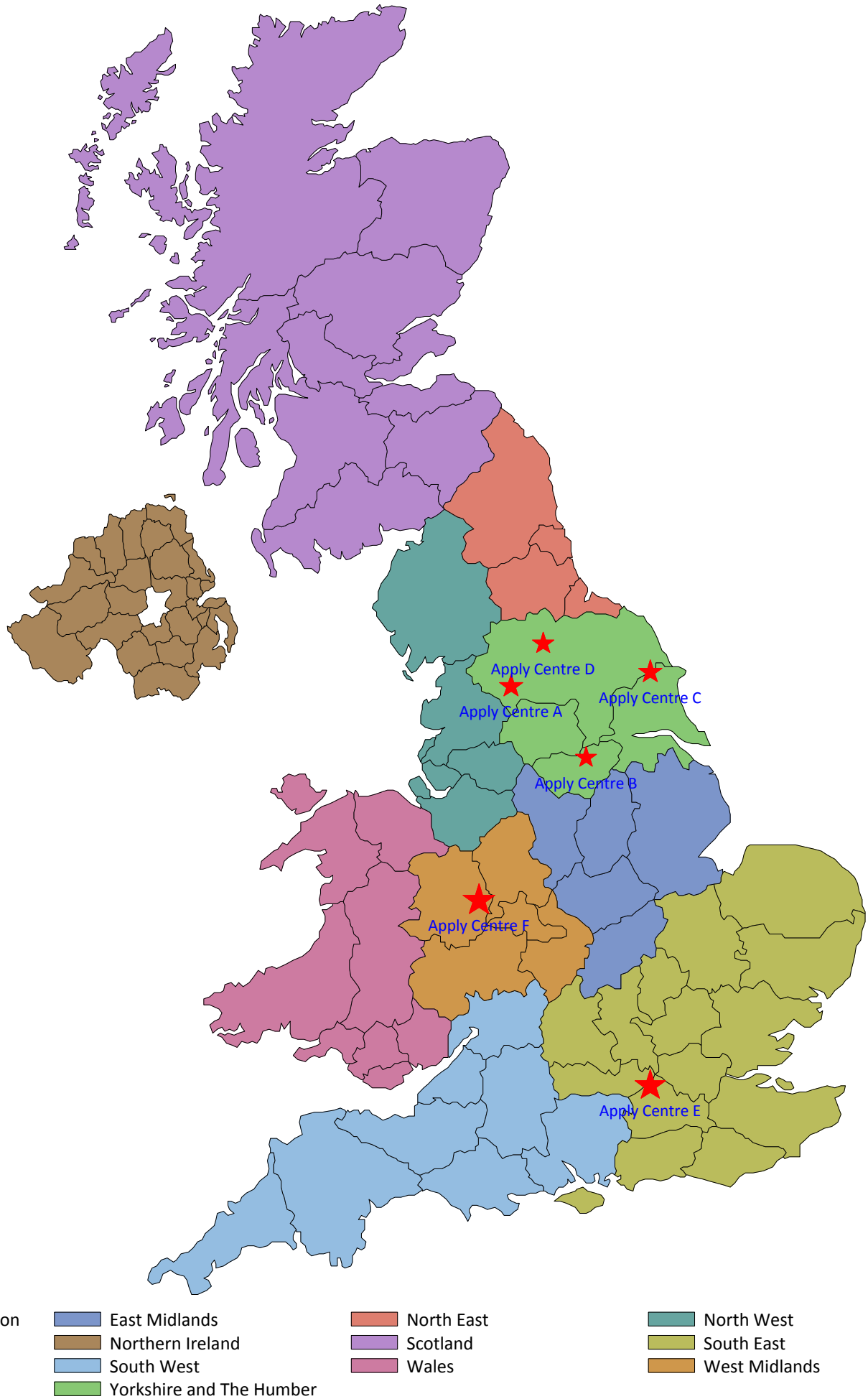


Figure 5. Apply centre by geographic location (UK only) and size of relevant cohort (Q1 and Q2 ABB+, Year 1).

This approach becomes much more useful when considering numerous apply centres or criteria, as it would be possible to identify particular target areas based on where the largest possible recruitment cohort exists. For example, Apply Centre E and Apply Centre F had a similar number of ABB+ applicants from POLAR3 quintile 1 or quintile 2, but Apply Centre F is much closer to the modelled provider in the Yorkshire and the Humber. This information could be important for decision making or planning. Further examination, such as broadening the scope of analysis to include the top ten or fifteen apply centres for the relevant cohort of applicants, could be useful to determine if there are additional apply centres in the vicinity of Apply Centre E or F which also provide a recruitment opportunity and a larger total potential cohort of applicants.

Example 2 – EDP02_15_PRED_PTS Applicant quality – A level points

With the vast majority of applications currently resulting in an offer, it is important to ensure that resources are best spent to encourage applications from desired applicants, depending on criteria specific to you at any given time. This example looks to consider **where do applicants of a specific quality or academic strength come from?** To start, it is important to define the original scope for analysis, which in this case is applicants that have been predicted twelve or more A level points, equivalent to BBB or above. EDP02_15_PRED_PTS is filtered to include only these values, and the most recent application cycle (Year 5). Note that the following could also be carried out for achieved A level points, the difference in achieved and predicted A level point score, or achieved BTEC grade in place of predicted A level point score.

The above filtering combined with the inherent filtering applied to the output allows Figure 6 to be produced by plotting the number of applicants against predicted A level point score for each apply centre, filtered to applicants aged 18 years old, predicted twelve or more A level points, domiciled in England, Northern Ireland, or Wales, and to Year 5. When producing a similar graph as below, but using the EDP02 outputs, it would also be recommended to sort the data as necessary. For example, by sorting the data by the number of applicants or acceptances for the relevant cohort, you can specifically analyse apply centres with the highest number of (accepted) applicants, historically, within this cohort. For the purposes of this example, the apply centres used previously will be analysed.

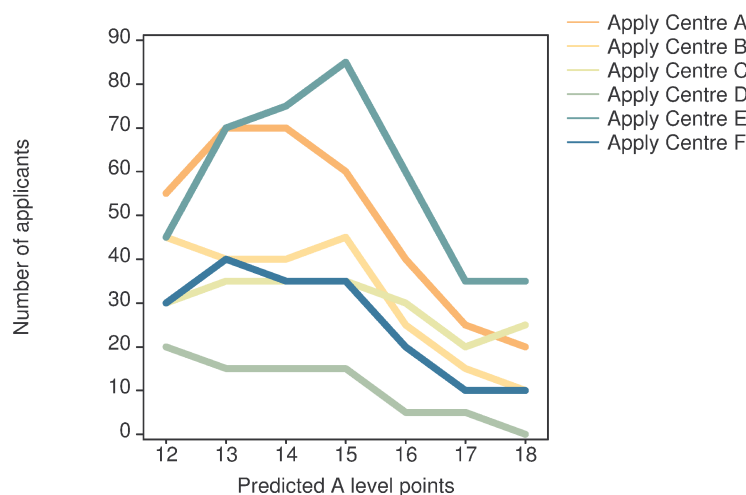


Figure 6. Number of applicants by apply centre for 18 year old applicants domiciled in England, Northern Ireland, or Wales, predicted 12 or more A level points (Year 5)

Figure 6 indicates that Apply Centre A and Apply Centre E had the largest number of applicants, within the specified cohort, in Year 5. Apply centres B, C, and F appear to have had a similar number of applicants for the same cohort in Year 5, and Apply Centre D had a much smaller number of those applicants. This analysis could be combined with analysis carried out on other outputs to examine if apply centres with a large number of applicants with high predicted A level points also have a large number of applicants to a certain subject area.

Example 3 – EDP02_18_BTEC_GRADE Applicant quality – Achieved BTEC grade

This example has the same broad aim as the previous example, looking to answer **where do applicants of a specific quality or academic strength come from?** However, achieved BTEC grade will be analysed in place of predicted A level point score, with particular interest in 18 or 19 year old applicants that have achieved DDM or above. EDP02_18_BTEC_GRADE is filtered to include only these applicants, as well as the filtering already applied to the output file (to applicants domiciled in England, Northern Ireland, or Wales), and the most recent (Year 5) application cycle.

The above filtering combined with the previously applied filtering, to applicants domiciled in England, Northern Ireland, or Wales, allows Figure 11 to be produced by plotting the number of acceptances against achieved BTEC grade for each apply centre, filtered to applicants aged 18 or 19 years old, achieving a BTEC grade of DDM or above, and Year 5.

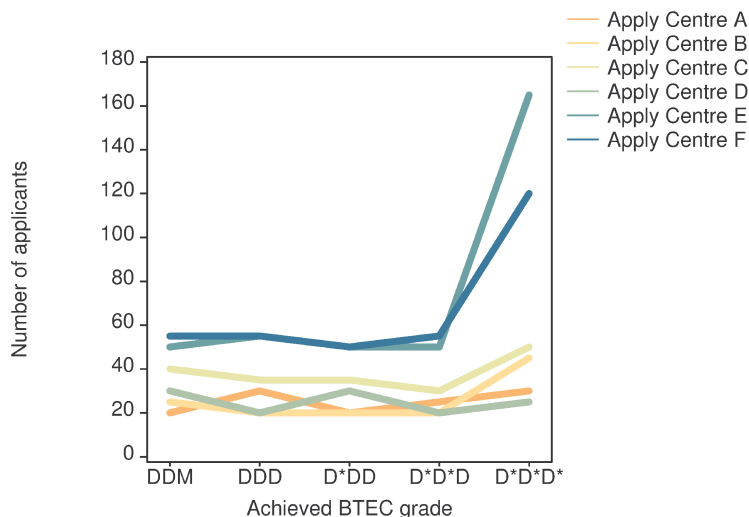


Figure 11. Number of applicants by apply centre for 18 or 19 year old applicants domiciled in England, Northern Ireland, or Wales, achieving BTEC grade DDM or above (Year 5)

Figure 11 shows that Apply Centre E had the highest number of relevant applicants achieving BTEC grade DDM or above, closely followed by Apply Centre F.

Another approach that could be used when the aim is to target a certain quality of applicants by subject would be to use EDP02_19_DERIVED_STATS to determine which apply centres would be relevant based on their average predicted A level point score for applicants, then use EDP02_10_SUBJECT_SUMMARY or EDP02_11_DET_SUBJ_07_12/EDP02_11_DET_SUBJ_13_17, filtered to relevant subject groups, to select apply centres with the highest number of acceptances to those subjects. You could then create a data set combining the results in order to view the apply centres with the most acceptances to the relevant subjects that also meet the criteria for your defined (minimum) average predicted A level points.

Example 4 – EDP02_13_PROVIDER_REGION - Provider region

This example requires the use of both EDP02_01_APPLY_CENTRE, and EDP02_13_PROVIDER_REGION to determine **which apply centres have the highest proportion of applicants making at least one application to providers in Yorkshire and The Humber?** Using $P = (\text{number of unique applicants to provider region} / \text{total number of applicants}) \times 100$, where P equals the proportion of applicants making at least one application to a given provider region for an apply centre. Calculating this for Year 1 and Year 5 then allows the increase in proportion of these applicants over the previous five cycles to be calculated ($P[\text{Year 5}] - P[\text{Year 1}]$).

First of all, the EDPO2_13_PROVIDER_REGION CSV file is filtered to the relevant apply centres, provider region Yorkshire and The Humber, and Year 1 and Year 5 only. EDPO2_01_APPLY_CENTRE is also filtered to the relevant apply centres and application cycles to obtain the total number of applicants from each apply centre. Using this data, a new table can be produced using the above formula for both Year 1 and Year 5, also allowing calculation of the increase, or difference, in proportion of applicants making at least one choice to a provider in the selected region from Year 1 – Year 5.

| Apply Centre | Provider Region | Proportion of applicants 2015 | Proportion of applicants 2011 | Proportion difference (percentage points) |
|----------------|--------------------------|-------------------------------|-------------------------------|---|
| Apply Centre A | Yorkshire and The Humber | 32.47% | 34.25% | -1.8% |
| Apply Centre B | Yorkshire and The Humber | 45.22% | 53.45% | -8.2% |
| Apply Centre C | Yorkshire and The Humber | 33.07% | 34.48% | -1.4% |
| Apply Centre D | Yorkshire and The Humber | 17.35% | 16.28% | 1.1% |
| Apply Centre E | Yorkshire and The Humber | 33.51% | 34.52% | -1.0% |
| Apply Centre F | Yorkshire and The Humber | 38.26% | 37.93% | 0.3% |

Figure 12. Proportion of applicants making at least one application to a provider in Yorkshire and The Humber by apply centre.

Figure 12 shows that, for Year 5, Apply Centre B has the largest proportion of applicants making at least one choice to a provider in Yorkshire and The Humber, with 45.22% of all applicants doing so. However, this has been a significant decrease in overall proportion since Year 1. Apply Centres A, C, and E all have with similar proportions (approximately one in three applicants), and finally Apply Centre D has by far the lowest proportion of applicants with fewer than one in six applicants making a choice to a provider in Yorkshire and The Humber. The above table also shows that only Apply Centres D and F have had an increase in this proportion over the previous five application cycles, with Apply Centre D having the largest proportional increase of 1.1%.