

Government Statistician Briefing Note

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We received the following results from the Electoral Commission on Tuesday morning and the official letter from the Office of the Clerk arrived today.

Total number of signatures checked: 28,127 (= 27,961 + 166)

Number of unique electors found: 23,031 (= 22,865 + 166)

Number of signatures disqualified as duplicates: 166

Number of signatures disqualified as ineligible or illegible: 4,930 (The ineligible and illegible count includes 21 signers whose details weren't able to be read, and 4909 signers whose details couldn't be matched to anybody on the electoral roll)

Please note that the letter from the Office of the Clerk is based on signatories, whereas the above are signatures - this is explained further below.

As the sample taken was a systematic sample of 1 in every 14 lines on the full petition, the total number of signatures submitted is 393,778. The number of signatures required for the petition to be certified as correct is 308,753 (as indicated in the letter from the Clerk of the House).

When we put these numbers into the estimator that has been used in previous petitions, the number of valid signatures comes out as 292,291 with a standard error of 2,579. That means our 95% confidence level upper limit is 296,462 unique valid signatures. The probability of there being enough valid signatures in the full petition given the results of our sample is negligible (less than one in a billion).

This means that the lodged petition does not meet the required level of valid signatures, and therefore will not trigger a referendum.

Further Commentary / Background.

There were no notable issues or problems during the processing. The sampling method was identical to previous petitions, with minor changes in the procedural instructions to make it more practical for the Clerk's office to deal with the large number of forms. As in previous petitions, a few minor manual errors were discovered during the Office of the Clerk's sampling but these are taken into account in our calculation.

In comparison with previous petitions:

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- The sample size was about the same (the last couple have been in the 29,000 range, the couple before that were about 26,000).
- The fraction of ineligibles is higher than last time but not far out of line with the last five determinations (17% of the sample vs 13%, 12%, 12%, 16%, 18%)
- There were slightly more doubles found in the sample than in previous petitions. This caused the estimated proportion of people signing twice (estimate of doubles divided by estimate of unique signers) to be higher - 11% vs 8.7%, 5.8%, 5.1%, 7.7%, 8.8%.
- The estimate of unique signers is about 74% of the total petition size. This is lower than the last few petitions (80%, 91%, 83%, 76%, 79%) but reflects the fact that there was a smaller sample than last time with slightly more doubled and ineligible signatures found.
- The variance between the instructed sample size and the actual checked sample size is 175. This can be compared to differences of 125 in the Savill re-submission, 141 in Baldock and 40 in Withers. The higher difference could be due to a couple of factors affecting the likelihood of manual mistakes in sorting and counting: