Pensions dashboards – Using fuzzy matching for clear results

> **Now that the pensions dashboards has been 'reset', Ross Milligan explains how best to use this extra time to prepare**

So, the pensions dashboards reset has given us more time to prepare – let's not waste it! We must ensure that this time is spent getting our data and processes in a position to facilitate both onboarding to dashboards and day-to-day delivery. An essential part of compliant delivery is matching, which involves identifying if dashboard users have entitlements in a specific pension scheme by matching scheme records to the details that users provide to dashboards.

Following on from Pension Fusion's matching research report in September last year [1], we have developed our thinking on 'fuzzy field matching'. This is a process where various techniques are applied to check whether two almost identical data items are similar enough to be considered a reasonable match. This application can sometimes be obvious – matching 'Smith' to 'Smyth' and 'Nick' to 'Nicholas'. However, it can involve more complex techniques – comparing '09/03/1978' to '03/09/1978' or picking up where surname and forename are held the wrong way around.

To demonstrate the importance of fuzzy matching, let's look at the results from tracing exercises we ran on a test population of real schemes' data for 190,000 members. Whilst tracing is generally performed to obtain updated addresses, it can also provide updated or corrected names and dates of birth. The charts below show the breakdown of three key data items where the traced data differed from the data held on the administration system *[see figure A]*.

figure A
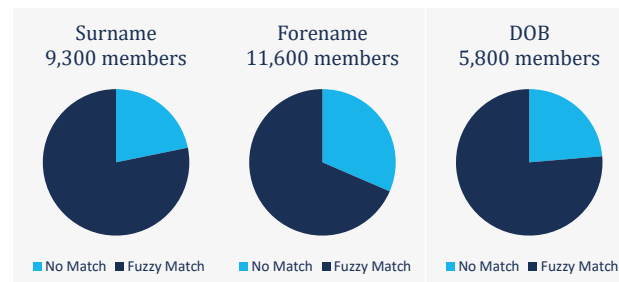
In these figures, you can see that the matching logic picked up that the differences were close enough to be a fuzzy match in around 75 per cent of the cases. In the majority of cases, the other two data items were an exact match, though this still leaves over 2,000 members with at least two data items impacted.

This shows the value of using fuzzy matching as part of a scheme's 'matching criteria' – the set of data elements that schemes use to compare against the user data received from dashboards.

Bear in mind that this analysis does not include NI numbers, as there was no secondary source available to verify against, so the findings probably underestimate the number of members who could be matched by applying fuzzy matching logic. Unlike the other data items shown, NI numbers will not be verified or required when the member submits their data to dashboards. So, errors can originate on either side of the matching process, meaning matching criteria that include a fuzzy field match on NI number can be particularly helpful.

The recently released additional PASA Data Matching Convention guidance on Possible Matching [2] gives examples of how fuzzy field matching is particularly well suited for Possible Match responses. This guidance also shows the importance of the three data items used in our analysis (surname, forename and DOB) for matching, not least because these are all expected to be verified when provided by dashboards for matching.

The PASA guidance also discusses the key considerations that need to be applied when considering how well matching criteria will operate, and how to use fuzzy matching together with exact matches to ensure our matching policies are neither too lax nor too restrictive. Applying fuzzy matching logic in a safe, measured manner, will improve member experience of pensions dashboards dramatically.

> **Written by ITM technology innovation analyst, Ross Milligan**

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1: Pension Fusion – Pensions Dashboards: Getting to the heart of matching -
https://www.pensionfusion.com/news/pension-fusion-release-large-scale-pensions-dashboards-research-matching
2: Pensions Administration Standards Association – Pensions Dashboards Working Group – Addendum: Data Matching Convention (DMC) Guidance -
https://www.pasa-uk.com/guidance-2/pasa-dmc-guidance-matching-without-a-nino-and-possible-matching-final-formatted/