This talk is based on joint work with Browning and Sarapin. We will consider specific families of varieties parameterised by points on a quadric surface, and obtain upper and lower bounds for the number of the everywhere locally soluble members of these families. The Loughran-Smeets conjecture predicts the order of growth of such a counting problem if the base is projective space. We show that a naive generalisation of this conjecture does not hold for the families under consideration, and offer a possible explanation for this failure.