This paper aims to discover how the measures that improve aircraft structural safety compare with each other in terms of effectiveness. The safety measures we include here are a load safety factor of 1.5, conservative material properties, redundancy, certification tests, error reduction and variability reduction. We find that error reduction is more effective than certification testing, which is more effective than using an extra load safety factor. Variability reduction is found to be a very effective way of reducing the probability of failure (more effective than error reduction), but it should be accompanied with an increased B-basis value. In addition, certification testing is found to be effective when errors are large, while structural redundancy is found to be more effective when errors are low.

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