

Getting the most out of NQF statistics: A guide for users

Do not put your faith in what statistics say until you have carefully considered what they do not say.

~William W. Watt

Statistics can be made to prove anything - even the truth.

~Anon.

Part 1 – Aims of this guide

The aims of this guide are to:

- 1 assist staff in schools in thinking about the kinds of analyses of NQF data that might be appropriate for their purposes¹.
- 2 assist staff in carrying out and presenting analyses.
- 3 Inform staff of important points and potential pitfalls to take into account when interpreting analyses for the purpose of improving educational delivery.

This guide is designed to be as accessible as possible to those who do not have statistical knowledge and expertise. It is not necessary to have such knowledge to make good use of NQF data. Useful information can be gained quite easily by plotting graphs or making tables of percentages (for example, of students gaining a particular qualification). Any technical terms that are used are explained.

The guide will also help people with some statistical knowledge to extend their analyses of NQF / NCEA data. 'Part 5 – Elementary concepts in data analysis' contains some important concepts in data analysis including percentage data, plotting histograms, means and medians (measures of central tendency), the standard deviation (a measure of spread), methods and applications of aggregating data, measurement error/ confidence intervals and a statistical test (chi-square) that can be used to compare distributions of results.

We welcome your feedback about this guide. Please feel free to send any feedback to monitoring-research@nzqa.govt.nz.

¹ It is not the intention or the role of the NZQA to instruct schools and the wider public on what these purposes should be. There are many possible analyses that will vary in usefulness and relevance between schools and between staff within a school.