What are the institutional uses to which quantitative psychology can be put? What do you consider to be its strengths and limitations?

Quantitative psychologists use psychological science to determine the impact of programs at the federal, state and local government levels. They serve as experts in**measurement, statistics, research methodology and program evaluation at research centres at major universities and colleges across the nation.**

Quantitative methodology in particular as well as mathematical psychology in general, is useless for answering questions about structures and processes that underlie observed behaviours.

Quantitative psychology is a field of scientific study that focuses on the [mathematical modelling](https://en.wikipedia.org/wiki/Mathematical_modeling), research design and methodology, and [statistical analysis](https://en.wikipedia.org/wiki/Statistics) of psychological processes. It includes tests and other devices for measuring cognitive abilities. Quantitative psychologists develop and analyse a wide variety of research methods, including those of [psychometrics](https://en.wikipedia.org/wiki/Psychometrics), a field concerned with the theory and technique of psychological measurement.

Psychologists have long contributed to statistical and mathematical analysis, and quantitative psychology is now a specialty recognized by the [American Psychological Association](https://en.wikipedia.org/wiki/American_Psychological_Association). Doctoral degrees are awarded in this field in a number of universities in Europe and North America, and quantitative psychologists have been in high demand in industry, government, and academia. Their training in both [social science](https://en.wikipedia.org/wiki/Social_science) and quantitative methodology provides a unique skill set for solving both applied and theoretical problems in a variety of areas.

In 1990, an influential paper titled "Graduate Training in Statistics, Methodology, and Measurement in Psychology" was published in the American Psychologist journal. This article discussed the need for increased and up-to-date training in quantitative methods for psychology graduate programs in the United States.

Quantitative strengths and weaknesses are below:

Strengths – they are easy to collect and are easy to analyse and make comparisons.

The main advantage of quantitative data for psychologists is that it is objective - numbers mean the same thing to everyone and you don't need to interpret them personally; this makes quantitative data very reliable and highly scientific. Another advantage is that quantitative data is good for making comparisons.

Weaknesses – They can be lacking in detail and they are simply recording numbers of behaviours and does not address what motivates behaviour

The main drawback with quantitative data is that it is reductionist. This means it simplifies too much. A lot of detail and meaning is lost when human experience is presented quantitatively. Two participants may get the same scores, even if they got those scores by doing very different things.