

Changing the Statistics Doctorate to create Broader Careers

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For most people, research training has historically focused on completing a PhD and then continuing a research career in a university or in a research institution with a similar role. However, there is a growing demand for research-trained people in industry and government and this is encouraging a reconsideration of how to best develop research students for their future careers. The issues being considered include:

- General concerns about the relevance of PhD training
- Greater need for PhD trained statisticians in business, industry and government and for these people to have extra skills (for example, skills in leading interdisciplinary teams and in commercialisation)
- A push for more industryready mathematicians working in academia as well as industry
- Increasing recognition of the value mathematicians and statisticians add to the research in interdisciplinary teams as co-researchers, not just consultants
- Needs for statisticians to have a broader range of technical skills (mathematics, computing, knowledge in the application domain of relevance).
- Employers may prefer in-house development of research-capable people with an outstanding undergraduate record rather than employing a PhD graduate whose specialisation is not directly relevant to the employer.

Some changes have been introduced into PhD programs and aspects of these will be described. In particular, some experiences of an Industry Doctoral Training Centre in Australia that is a collaboration among 5 universities will be described.

Keywords: PhD; research training; industry.