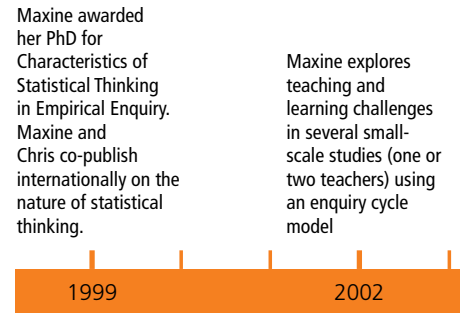
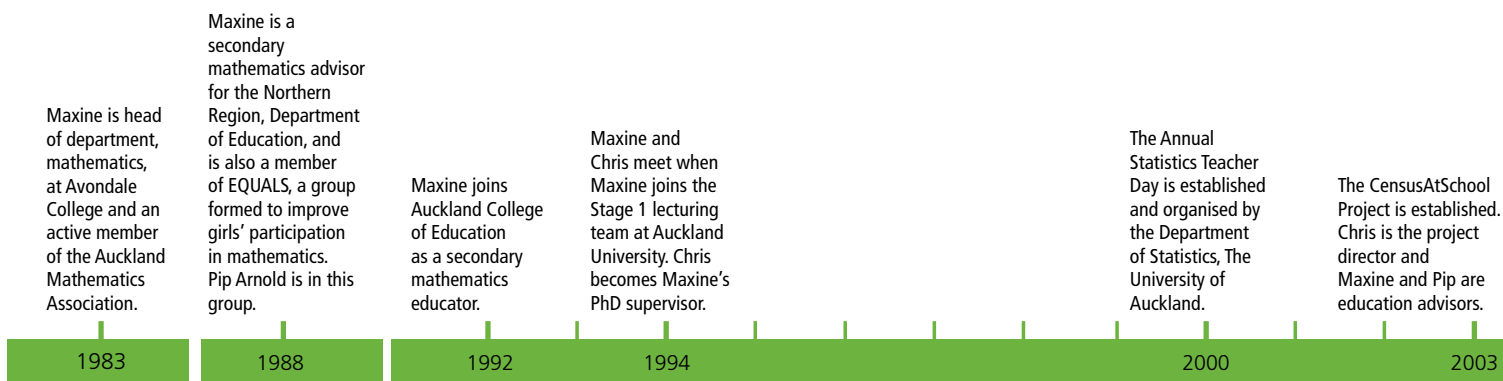


# Timelines



## Research timeline



## National networking timeline



## Policy timeline

Maxine explores sampling variability in small-scale classroom studies and builds a picture of the problems teachers are facing. Ideas about visual representations have their genesis in simple whiteboard experiments.

Both Maxine and Chris attend the International Statistical Forum. The Forum identifies a lack of attention being paid to inference as an area for international research.

The next International Statistical Forum has a focus on making inferences.

The first 2-year TLRI project begins, with a focus on taking account of sampling variability.

The second TLRI project begins in January, with a 2-year time frame to completion. The first TLRI report is published on the TLRI website.

The second TLRI report, which includes the teaching and learning of bootstrapping, is published on the TLRI website.

2005 2006–8 2007 2008

Maxine and Chris give a keynote presentation at the National Numeracy Conference in Auckland. At the Annual Statistics Teacher Day, Maxine, Pip and a key member of the TLRI team give a keynote presentation, and all the TLRI team give workshops, which are put on the CensusAtSchool website.

Pip gives a plenary and runs workshops in conjunction with another TLRI member at the Bay of Plenty Mathematics Association Teachers Day. She also runs workshops at the Wellington Mathematics Association, Taranaki Mathematics Association and Manawatu Mathematics Association Teacher Days.

Maxine and Pip each give a workshop at the New Zealand Association of Mathematics Teacher Conference in Palmerston North. Maxine gives a presentation at the Annual New Zealand Statistical Association Conference in Wellington, and also to the Victoria University Mathematics Education Research Symposium in Wellington. nd at the Annual Statistics Teacher Day.

Maxine and Chris run a 'roadshow', which includes other TLRI members, for Wellington, Christchurch and Dunedin teachers.

Auckland teachers access professional learning sessions each term and at the Annual Statistics Teacher Day, where TLRI team members give presentations.

Some members of the TLRI team give presentations and run regional workshops, whereas others give presentations at the AMA Saturday Morning Workshops and in their schools.

Maxine and three key TLRI members give a presentation at the Annual New Zealand Statistical Association Conference in Dunedin. Maxine is a guest speaker at the Waikato Mathematics Association AGM in Hamilton. She also gives a presentation to New Zealand mathematics and statistics professional development facilitators in Auckland.

Pip gives a keynote presentation at the New Zealand Association of Mathematics Teachers conference in Dunedin.

Saturday morning AMA workshops for Auckland-based maths teachers are established and organised once a term by Pip.

Maxine becomes Pip's PhD supervisor. Chris gives a keynote presentation at the AMA Saturday morning workshops while Maxine gives workshops at these and at the Annual Statistics Teacher Day.

At the Annual Statistics Teacher Day, Maxine, Pip and the TLRI team give a keynote presentation and run workshops, which are put on the CensusAtSchool website. Some members of the team present at the AMA Saturday Morning Workshops and Chris gives a keynote presentation. Other TLRI members give workshops to teachers in their schools and in their region.

At the Annual Statistics Teacher Day, Chris gives a keynote presentation and the TLRI team give workshops.

Pip is a plenary speaker at the New Zealand Association of Mathematics Teacher Conference in Dunedin and gives the keynote address at the AMA Saturday Morning Workshops. She also runs a day-workshop for Gisborne teachers and workshops for Christchurch and Otago mathematics teachers.

Maxine and a key TLRI member give a presentation at the Annual New Zealand Statistical Association Conference in Auckland. Some members of the TLRI team give keynote presentations and run workshops for the Mathematics Associations in their regions and run workshops for teachers in their schools, while others present at the AMA Saturday morning workshops.

Chris is a plenary speaker at the New Zealand Association of Mathematics Teachers Conference in Wellington. Chris and some TLRI members give workshops at this conference. Maxine presents at the Annual New Zealand Statistical Association Conference and Chris gives a keynote presentation in Hamilton.

2005 2008 2009 2010 2011 2012 2013

New Level 2 and 3 NCEA standards in statistics are published (AS90288, AS90642). The focus is new and they don't take sampling variability into account, nor are criteria for making judgments as clear as desirable.

Development of The New Zealand Curriculum (NZC) begins. Maxine and Pip become part of the statistics writing group. With Chris, they gather a large group for consultation and support. The NZSA Education Committee expands to include this larger group. The NZSA Education Committee group endeavours to be forward-looking and anticipate future learning needs.

A draft NZC is published for consultation and feedback.

The final version of NZC is published, to be mandatory by 2010. The advisory group begin discussing teaching and learning challenges for the new statistics achievement objectives. This leads to the first TLRI proposal.

Development of senior secondary curriculum guides begins. Pip leads the writing group. A new level 1 achievement standard on making inferences is published (AS91035) after extensive feedback from the NZSA Education Committee.

A new level 2 achievement standard on making inferences is published (AS91264) after extensive feedback from the NZSA Education Committee.

The CensusAtSchool website is redesigned to also become a repository for statistics resources for teaching the statistics curriculum. (All TLRI presentations to teachers, workshops, resources and some publications are put on the website.)

New level 3 achievement standards on making inferences are published (AS91582 and AS91583) after extensive feedback from the NZSA Education Committee. The standards assess knowledge of new statistical techniques—bootstrapping and the randomisation test, respectively.

The senior secondary curriculum guide for statistics is updated to address gaps in the knowledge presented.

2004 2006 2007 2010 2011 2012 2013