1. What is(are) the research question(s)?
   1. Identify ways in which the teaching of 'home' science was shaped by assumptions about gender?
   2. How did the teaching of science to girls change? To what extent does this mirror developments and trends in the US?
   3. How did women graduates of the Home Science School negotiate their constraints and opportunities as science academics and educators?
   4. Critically appraise the interrelationships between science as a field of knowledge and issues of power and gender

2. Rationale
Historians of education face important questions about the relationship between 'science', gender and power, the way knowledge of science has been shaped in particular historical contexts, the construction of scientists and why women operated "at the margins" of science teaching and academic life? These questions have been raised by Heap (1999) in her examination of women scientists at Toronto, but similar work has not been done in NZ. This research project sought to address this gap in knowledge by examining the professional lives of selected leading women academics and professionals who graduated from the Home Science School in the years 1911-1961. It examined ways in which the women negotiated their lives as professionals, academics and educators, and the interrelationships between higher education, science as a field of knowledge and gender

3. Methodology
This project utilised a feminist lens and a multi-method historical approach including documentary, archival and photographic sources. This study utilised a qualitative methodology including a “situated reading” of relevant documentary, archival, visual and oral accounts.

This research employed an approach called “analysis of narratives”. In this approach a data base consisting of archival, documentary and life history texts was examined to discover themes that appear across the sources. The model for data analysis that was used involved the development of concepts from the data rather than the imposition of previous theoretically derived concepts. A process of inductive analysis moved from identified commonalities in the data to the development of categories and concepts. Through a recursive process, the concepts were reshaped until they reached a “best fit”. In this way new knowledge was generated from a wide range of oral, documentary, visual and archival evidence. The research process included a preliminary scoping exercise, data collection from archival, documentary and oral
sources followed by a situated “reading” of the written, oral and visual texts and narratives.

Phase one (2007) (funded by a research grant from Unitec Research Committee - URC)
- Archival discovery searches
- A search for prospective interview subjects
- Initial interview
- Transcription of interview
- Initial document and interview analysis

Phase two (funded by a new research grant from URC)
- Archival searches in Dunedin, Wellington and New York (Carnegie Corporation Archives)
- Seven interviews
- Transcription of interviews
- Document and interview analysis
- The focus of my data gathering in Dunedin, Wellington and New York was the period 1936 to 1961 and the scholarships provided by foundations such as the Carnegie and international links made by graduates.
- Data analysis is ongoing

4. Outcomes / findings

Phase one: 

Home Science as a gendered field of higher education

International developments in the field of household science helped to create favourable conditions in New Zealand for the growth of home science as an area of academic ‘women’s work’. University administrators responded to increasing numbers of women students entering higher education by establishing a women’s enclave of academia at the School of Home Science, University of Otago. Struggles over the nature of the home science curriculum, ongoing conflicts with inflexible university administrators and tensions between the commitment to high academic standards and the expectations of the public, university administrators and the Department of Education that students would become technically proficient in the practical household arts, shaped the development of household science as an academic field in New Zealand. Nevertheless, numbers of women inside and outside the university saw a home science education as a springboard to professional and employment opportunities and as a way of reshaping the field of science to improve social and economic conditions in wider society. By expanding the definition of the home to encompass the larger social, political and educational stage, home scientists were able to broaden women’s sphere without directly challenging the doctrine of domesticity.

The academic and professional lives of Home Science graduates:

The majority of women who graduated with a home science qualification were white, middle class and among the educated elite. Many of them, shared with political and social reformers of the era, an ethnocentrism that uncritically promoted prevailing assumptions about the superiority of contemporary western middle-class culture and social values. One problem with this criticism is that it demonizes reformers for attitudes pervasive in the culture, ignoring the agency of women like Emere Kaa and Neige Todhunter who came from non-traditional backgrounds and who drew on contemporary understandings about health and nutrition to promote the wellbeing of Maori in remote communities and the children of the poor. An examination of the careers of these two women illustrates the importance of investigating the scientific, professional and socio-cultural dimensions of the lives of women home science graduates. Neither Neige nor Emere envisaged the School of Home Science as primarily a training school for glorified housekeepers or as a vocational institute for
school teachers. At a time when, conservative discourses about the role of women were increasingly dominant and the advances of the first wave of feminism were seen to threaten the integrity of the family, these enterprising women created career opportunities for themselves and by doing so helped to open new avenues of professional employment for home science graduates in the expanding fields of household science in academic, educational and health settings. As Sarah Stage (1997) notes, while household scientists have themselves grown more introspective and self-critical about their contributions, historians of women, still experiencing firsthand in the 2000s the frustrations and excitement of creating women’s enclaves within and outside university walls, have grown less dismissive of the women who struggled against difficulties to create professional and academic opportunities in a previous century.

**Phase two:**

**Locating women in educational leadership:**

A study of women’s experiences in the academy illuminates both the origins of contemporary struggles and the range of strategies adopted as they attempted to expand the range of their academic and leadership activities. As a researcher and practitioner Catherine Landreth’s career exemplifies many of the key developments in the field of child development and early childhood education. At a time when progressive educators increasingly turned to science to enhance their knowledge of children and their needs, she was at the forefront of attempts to improve understandings of children’s development and the conditions of infant and child care services. Landreth’s professional life is emblematic of the opportunities available to a new generation of women educational leaders, the inequities facing them and of the strategies they adopted to carve out a location for themselves in the university.

An examination of her absence from the historical record exposes some of the mechanisms by which women’s academic and research achievements were suppressed. Located in the low status enclaves of household science and early childhood education, Catherine faced difficulties gaining credibility as an academic and access to research funding. Nevertheless, she managed to carve a niche for herself as a researcher, academic and professional, undertaking seminal work in early childhood education, social attitudes, the place of the preschool in public education and the architecture of learning and play. With the grace typical of her generation, she remained optimistic about the challenges of university life and pragmatic in her responses to the difficulties she faced.

Through a study of one woman’s professional and academic life, this research has presented an historic perspective on some of the deeply entrenched inequities in the academy. An examination of the emergence of the pre-eminently gendered fields of child development and early childhood education has highlighted key struggles over the location and status of women in the university and the way women attempted to address the issues facing them. Contemporary scholars, concerned by the ongoing inequities in higher education and the continued location of women in low status positions would do well to turn to history to illuminate some of the current challenges facing women in the academy.

**Creating educational work in the academy and beyond: Carnegie connections**

This phase of my research also explored the significance of Carnegie Corporation philanthropic grants for the work of educators in Australia, South Africa and New Zealand. It detailed how the expansion of philanthropic foundations in the late nineteenth and early twentieth centuries led to the growth of the new ‘experts’ and how access to the new professions, ostensibly via ‘merit’ was determined by social and cultural networks and assumptions about race, culture, social class and gender. Under the presidency of Frederick Paul Keppel, the Corporation, through its
Dominion and Colonies Fund, utilised key contacts to internationalise American educational theories and practices including progressive models of ‘new education’ in the fields of administration, the academy and the professions. While most contacts were men, small numbers of women served as key contacts, acting as conduits into universities and government policymaking, and as gate keepers for Carnegie grant and travel programmes. While the system of grants for travel overseas can be seen as helping to breaking down New Zealand’s intellectual isolation, Corporation grants for scientific research, library and museum development, adult education programmes, grants in aid for scholars, support for the New Education Conferences and the financing of visits by leaders in the educational field provided a vehicle for the spread of ‘new’ educational ideas and a crucial catalyst for the reform of education in South Africa, Australia and New Zealand. While grants to women were limited in number and reflected prevailing assumptions about the superiority of western middle-class culture and values, they highlighted women’s public and professional expertise as social reformers and helped to expand highly feminised fields of educational work such as home science, library work, adult education and child health. In a world where debates about the politics of knowledge were intensifying, the Carnegie Corporation helped to define, develop and distribute the work of educators in the academy and beyond, and to exercise influence and power well beyond that inherent in its wealth.

5. Publications and dissemination

Accepted and forthcoming in 2009
Collins, J. (2009). Glorified housekeepers or pioneering professionals? The professional lives of Home Science graduates from the University of New Zealand, 1911-1935. *Journal of Educational Administration and History,*

Publications

In Preparation
Fitzgerald, T & Collins, J. ‘Struggles and strategies: An historical analysis of the first generation of academic women at the University of New Zealand, 1909-1949’ (book manuscript for University of Winchester Press)
Fitzgerald, T & Collins, J. Gendering the ivory tower: The first generation of academic women at the University of New Zealand 1907-1949 (AERA 2009)
Collins, J. ‘Creating educational work in the academy and beyond: Carnegie connections (under review)

Conference presentations
Collins, J ‘Outsider at work? Imagining woman in the academy’ (ANZHES 2008)