CEA 2002- CWEN lunch talk - Barbara J. Spencer.

"**Trying to Follow the Yellow Brick Road**: My early experiences as a women economist in Australia, Canada and the United States".

**1. Background from Australia.**

Thank you very much for inviting me here to talk to you today. I would like to start by giving a little of my background. I grew up in Canberra, which is even more of a Public Service town than its counterpart, Ottawa, in Canada. In 1947 at the age of 30, my father, Trevor Swan, had been appointed as the founding Head of the Department of Economics in the Research School of Social Sciences at the Australian National University or ANU. He was also very active as an economic advisor to successive governments. On leaving high school, I did an undergraduate degree at the ANU. My father had strongly advised me not to do economics on the basis that it would be exceedingly difficult for a woman to get a job in that field. Most of the jobs for economists were in the Public Service and prior to 1972, the law in Australia required that any woman who married must resign from the public service, unless she were a secretary and could be placed in the typing pool. Also, it was required that for all public service jobs, women be paid significantly less than a man doing the same work.

In high school, I had decided not to learn to type so as to commit myself to never being relegated to a typing pool even for a temporary summer job. In keeping with this, I was very happy while at university to get a summer job in the Department of Treasury, where I suspect I was the first female employee that was not a typist. There were two tea rooms, one for regular staff, who mostly had backgrounds in economics, and one for the secretaries. I decided to brave the tea room for regular staff. As I walked in there was a complete silence as the roughly 40 men, all in grey suits and white shirts, turned to stare at me. My recollection is that no one spoke for the five minutes it took me to get my tea in a leisurely manner. One of the men there told me afterwards that it is inhibiting for men to have to talk with a woman present. To show that I was not intimidated, I again went to the tea room the next day, but I admit that I subsequently just stayed at my desk. I also became friendly with one of the secretaries, who had a much worse problem than where to take tea. She confided that, every day, she lived in fear that it would be discovered that she was married with two children.

As for my undergraduate education, I agreed to follow my father's advice, deciding that I would not focus on economics, but instead would become a statistician. Statisticians had a broader range of job possibilities, including jobs in the private sector. Since economics was useful training for a statistician, I went ahead and majored in Economics anyway, also taking as many courses as possible in Statistics and Mathematics.

A number of my women friends at the Australian National University were planning to be teachers, mostly due to very generous teachers' scholarships that fully paid their living expenses. Those accepting teachers scholarships were expected to work for five years as teachers after completing, often in remote rural areas. However, there was a very useful clause for women. If a women married, she was excused from this five year obligation. It is therefore not surprising that virtually all of my friends on teacher scholarships married at age 20 or 21, just after completing their undergraduate degrees. I think this is a good example of the power of economic incentives that economists always emphasise, but which government bureaucrats often ignore, with the result that many government programmes do not achieve their objectives.

I was the only woman majoring in economics at the ANU in my year. This may have been partly a reflection of the fact that economics was not a teaching subject. However, I was encouraged by the fact that one woman, two years ahead of me, was also doing economics.

In second year, I decided to take a course in Mathematical Economics. Although the course was open to second year students, all the other students in the course were 4th year honours or master's students. One of the main books we were expected to master was Paul Samuelson's *Foundations of Economic Analysis*, which is the Nobel Prize winning work that Samuelson developed from his Ph.D thesis. I really struggled in this course. In order to read the book, I had to first teach myself matrix algebra and fairly advanced multivariate calculus, which I had not yet studied in my mathematics courses. Having finally worked my way in painstaking detail through every equation, I felt very disillusioned with economics. I found Samuelson's notation to be excessively complicated and wondered, no doubt unfairly, whether the notation had been designed to confuse readers so they would think the work was deeper than it actually was. More importantly, I felt the monumental effort on my part to understand the work gained me very little perspective on real world economic problems. As I saw it, the main result was to prove from first principles that demand curves typically slope downwards, but that this is not always the case.

**2. Abandoning Economics for Genetics**

It was about that time I decided that I would give up economics and move into a study of genetics, which I felt had some real practical relevance, with its promise of improving our understanding of environmental and health issues. However, since I like to finish what I start, I wisely decided to spend the next year finishing my degree in Economics. Although this went well and I was awarded the prize for the top student in Economics, I did in fact drop economics so as to spend a fourth year doing all the courses necessary for a major in genetics as well as completing the work for majors in statistics and mathematics.

Towards the end of the year, I made an appointment with a senior administrator in the Genetics unit at the CSIRO (Commonwealth Scientific Research Organization), in order to check on my job prospects supposing in the future that I obtained a Ph.D in genetics. Much applied research in science was and is carried out by the CSIRO, which is a Federal Government organization. I felt that an academic job, possibly associated with the CSIRO would be O.K. because the universities were exempted from laws against women working. It was at this interview that I encountered the bathroom problem. The administrator first asked me if I wanted to eventually do field work. I replied enthusiastically, that I expected I would enjoy it. At the time I was an avid bushwalker and had spent many nights camped in wild places. He then explained that departmental regulations concerning the need for adequate bathroom facilities meant that women were not allowed on field trips. I argued with him, saying how silly I felt this regulation was, but agreed that if these were the regulations, I could do without field trips. He then looked at me sternly and explained that field trips were a requirement to work at the CSIRO. But, I stammered, this seems to imply that no female researchers can be hired by the CSIRO.  Yes, he said. That is indeed the case. There are no jobs for women here.

I felt shocked and defeated. I seemed to have been transported to the land of Yossarian and Major Major, where catch 22 ruled the day. I had never previously heard of the bathroom problem, but, whether economics had real world relevance or not, it seemed prudent to return to economics where the nature of bathroom facilities was not an issue. I also thought it possible that I had encountered a particularly prejudiced individual. However, just this year, I learned that the bathroom problem was indeed endemic in the science disciplines until at least the mid 1970s. A friend, who is currently a professor at the ANU in Social Welfare, was told in the mid 1970s by the career guidance councilor at her high school in Canberra not to do science because of the lack of appropriate bathroom facilities. Needless to say, the laws and practices have now totally changed in Australia and opportunities for women are catching up to those in Canada. Since1972, there have been no laws restricting work by married women and women have a legal right to equal pay.

**2. Return to Economics and a move to Winnipeg**

Consequently in 1966, I moved to Monash University to do a Master's degree in Economics, specializing in Econometrics. I also got married. My husband at the time (not Jim Brander) was having trouble with his studies and, since he was admitted as a Ph.D student in Neurophysiology at the University of Manitoba, we decided to move to Winnipeg. I knew very little about Canada except that it was rumoured to be cold and that it produced lots of logs and beavers. Arriving at Winnipeg just before Christmas was a shock. It was so cold and desolate looking that I thought I had arrived on the moon by mistake. I had no boots, only sandals, and my feet nearly got frostbite as I got off the plane at 30 below zero on the open tarmac.

However, it may surprise you that over my years in Winnipeg, I gradually grew to appreciate the stark beauty in flatness and endless white. I remember going out into the country side and realizing that the white snowy ground stretches, basically unchanged, for hundreds of miles. I never grew to appreciate the cold.

I arrived at Manitoba with a job as a part time lecturer in the Economics Department, starting January 1970. For my first course, I took over Principles of Economics from Cy Gonick, a well known marxist or New Left economist, as he called himself, who had recently been elected to the Legislature as part of the NDP sweep into power. Taking over from Cy Gonick was a memorable experience. His version of microeconomic theory had mostly been a diatribe against the role of U.S. multinational corporations in suppressing Canadian independence. Most of the students were taking the course solely because Cy Gonick was teaching it, including a group of about 10 Maoists, who were there to heckle him. Cy neglected to tell the students that he would not be teaching in the second term and, in addition, he promised that there would be no final examination, something that was contrary to the rules of the University. Not surprisingly, the students were quite upset and angry when they learned that I would be teaching the macroeconomics part of the course and that

I would make heavy use of algebra, which would be tested on the exam. Despite being given a half eaten apple as a present by a student and no doubt receiving dreadful teaching evaluations, somehow I survived and was actually rehired by the then Chair, Clarence Barber, to teach Mathematical Economics and Intermediate Microeconomics the next year.

Coming to Canada was a breath of fresh air. There were no laws against women working and I personally encountered no discrimination at the University of Manitoba. Clarence Barber had built up quite a good department in the 1960s, which included hiring a couple of women. I enjoyed teaching, particularly Mathematical Economics, where I had a number of excellent students, including Ellie Applebaum, who was a master's student at the time and is now at York.

Although my master's degree, which included all the course work for a Ph.D as well as a minor thesis, was sufficient for an academic job in Australia, this was not the case in Canada. Clarence Barber was very helpful, suggesting that, even without a Ph.D, if I could publish a few papers, I would likely be hired as an Assistant Professor at Manitoba. This is not to say it was easy. Since I was trying to do research, I only took on a 2-2 load of teaching, which paid me no more than a graduate student. I economized by eating a lot of beans and making granola from oats, which I bought from a farmer's coop. The oats, which came in 60 lb bags were particularly cheap, no doubt because they were meant for horses.

However, although I felt I was treated fairly, the question of equal pay for academic women was an issue in the 1970s. There was talk of the need for an enquiry as to whether women faculty at Manitoba were treated fairly as to pay and promotion. Then as now, women tended to be concentrated in the lower paying ranks, particularly as Lecturers and Assistant Professors. One of the faculty members in Economics, who shall be nameless, wrote a letter to the student newspaper arguing that since women in Canada were generally paid less than men, this represented a market differential, which must reflect a difference in marginal productivity. Thus, it was right to pay women less than men. If women faculty at Manitoba had lower pay, this was because they had lower outside opportunities, due to their lower productivity. Although this argument is somewhat more subtle than the bathroom facilities excuse for not hiring women, I was quite upset that a colleague would present such an overly simplistic argument. Indeed, I sent a letter to the newspaper pointing out the obvious faults.

**3. Carnegie and Getting a Ph.D**

After four years as a part-time lecturer, I had four papers accepted and was appointed as an Assistant Professor. This actually made research more difficult, because the teaching load at Manitoba was then 3-3. I gained tenure after a couple of years, based on the argument that my (then six) publications were equivalent to a Ph.D. However, I still felt that I was something of a second class citizen. Together with the fact that my husband and I had broken up, this lead me to enrol in the Doctoral Program at GSIA, the Business School at Carnegie Mellon University, in the fall of 1976. Ed Prescott agreed to be my supervisor. Somehow I passed the comprehensives, known as the qualifying examination, at the end of the first term. Unfortunately, I was only able to get one year's leave from Manitoba to do my Ph.D, so I had to really hurry to get my thesis proposal accepted by May 1977. I returned to Manitoba for a year, but managed to get leave for the fall of 1978 so as to complete my thesis that year. The thesis itself was a big departure for me since it was entirely theoretical and involved a move into the field of Public Choice. Public Choice was a strong area at Carnegie, with influential work being done by Tom Romer and Howard Rosenthal among others. My thesis involved the application of what were then new theories of asymmetric information to Public Choice. Artur Raviv and Milton Harris, both pioneers in the study of asymmetric information were also at Carnegie.

It turned out that I was only the second women to get a Ph.D in Economics from GSIA. The first was my friend, Therese Flaherty, now at Wharton. The program was difficult because of its very large emphasis on mathematics. However, my fellow students were helpful and friendly and I learned a lot, particularly from Ed Prescott as to the nature of modelling and the importance of a real world motivation for research. I will forever be grateful for the very considerable time (about two, two hour meetings a week for 6 weeks) that he spent with me when I was trying to find a suitable thesis topic. Ed's only requirement was that I write two pages outlining possibilities for each meeting.

I returned to Manitoba in January 1979 to find it in turmoil, with Cy Gonick, the leader of the left wing faction, newly appointed as Head and many of the faculty attempting to move the location of their offices to Colleges on campus, as far from the main department as possible. I did manage to get promoted to Associate Professor that year, but it was obvious that I had to leave. When I failed to find a job on the market, I was very grateful to accept a Visiting Associate Professor position at Queens University in the fall of 1979. This was particularly significant, since I met Jim Brander, who had just moved to Queens after finishing his Ph.D at Stanford. Applying from Queen's, I was much more successful in the market and received a number of very attractive offers. I decided to accept an offer as an untenured Associate Professor at Boston College, where I was extremely happy and was treated tremendously well. I was given tenure after a couple of years, had very rapid salary increases and had just been promoted to full professor in 1985, when I left for UBC where Jim Brander had just been hired the year before. We were married that year.

## 4. Canada vs. the U.S.

Comparing my impressions as to the treatment of women economists in Canada and the U.S. at the time, the real difference is that the departments in the U.S. were actively looking to hire women. The U.S. economics departments were under some pressure from new affirmative action laws, both to increase the proportion of women that they interviewed and to at least make some offers to women. In addition, from what I observed both at Carnegie and Boston, there was (and is) a strong belief in meritocracy. As for Canada, I felt that there was no direct opposition to women (in contrast to Australia) but the ”Old Boy” network was still in operation. To be fair, in subsequently talking to people, I learned that my difficulty in obtaining a job in Canada was partly due to my unusual career path and to my publishing record, which showed some major swings in subject matter. My research ranged from the mostly empirical analysis I did at Manitoba in the fields of demography and economic history to the highly mathematical work on asymmetric information and public choice in my Ph.D thesis. Having started work with Jim Brander during that year at Queens, I was also developing some working papers in International Trade. My feeling is that in the U.S., Economics Departments were less concerned with what I had done in the past and more willing to consider the strength of current work, including listening to me as to what I planned to do in the future. Gaining tenure was generally tougher in the better schools in the U.S. than in Canada, so Departments had the luxury of later being able to fire people who did not work out.

By the mid 1990s, I believe that Canada had mostly caught up with the U.S. with respect to the hiring of women economists. There seems very little or no difference in the treatment of men and women with respect to hiring and pay. However, a number of schools, including the Faculty of Commerce at UBC, still have too few women. From the time I was hired in 1985 and for the next ten years, Commerce had only two women with tenure, myself and Frieda Granot in Management Science. As of today, this number has now been built up to 6 out of about 70 regular faculty. As this suggests, some significant problems remain. As I see it, the main current problem for women attempting an academic career is the need to balance family and work. When I arrived at UBC in 1985, there was no formal policy as to maternity leave. When Jim and I had a child the next year, I was at the Dean’s mercy as to the arrangements. The Dean did agree to reduce my teaching load by one course for the year after the birth, but there was no requirement for UBC to give any concession for childbirth at all. Fortunately, most schools, including UBC, now have formal agreements with respect to maternity leave, which allow women to take a term off and to stop the tenure clock for one year. Nevertheless, any academic woman who has a young child knows how difficult it is to find time for anything, let alone to find the time to achieve the sustained level of concentration necessary for research.

Finally, I must thank you for listening to these personal experiences. I would like to conclude by saying that, particularly given my circuitous career path, I am amazed and delighted to find myself in line to be the second female president of the Canadian Economics Association (after Alice Nakamura). I hope that you all are gaining as much joy as I have from teaching and doing research in economics over all these years.