

THE TOWN WITH NO POVERTY:  
A history of the North American Guaranteed Annual Income  
Social Experiments<sup>1</sup>

(Draft 12 May 2008. Please do not cite without permission.)

Evelyn L. Forget  
Community Health Sciences  
Faculty of Medicine  
University of Manitoba  
750 Bannatyne Ave.  
Winnipeg MB R3E 0W3  
CANADA

[forget@cc.umanitoba.ca](mailto:forget@cc.umanitoba.ca)

204.789.3772

---

<sup>1</sup> I'm grateful to the Canadian Institutes for Health Research (CIHR) which funded this project. The results and conclusions are those of the author; I am indebted to Health Information Services, Manitoba Health, for providing data. No official endorsement by Manitoba Health is intended or implied.

## I: Introduction

Between 1968 and 1980, the American government conducted four Negative Income Tax (NIT) social experiments and the Canadian government, one. Their main purpose was to gauge labour market response to a Guaranteed Annual Income (GAI); that is, how much will work effort decline under such a scheme? As the experiments unfolded, a number of other issues were examined: how does the scheme affect fertility decisions, or investment in human or other forms of capital, or family formation and dissolution?

The projects, however, were also important for other reasons. They were the first large-scale social experiments ever undertaken and, as a result, became a model for other social experiments. They used a method drawn from the natural sciences: they randomly assigned subjects to experimental and control groups in order to draw inferences about causation. One unique feature of the Canadian project, dubbed *MINCOME*, unwittingly set the stage for a re-examination of one of the fundamental assumptions of the social sciences: is the appropriate analytical unit the individual, the family or some larger aggregation?

This essay examines the history of these five experiments, both in the political and social contexts of the period and as one chapter in the historical evolution of the social sciences. It emphasizes the mixture of planning and coincidence that characterized GAI experimentation. The next section places these experiments at the centre of an ambivalence towards poverty elimination schemes that has dogged political economy almost from its inception. Section III considers the political and social contexts of the period and explores the ways in which these experiments were both generated by, and a challenge to, these deeper currents. Section IV looks at the Canadian political experience, while section V examines the unique methodological twist offered by the Canadian experiment. The final section exploits that methodological quirk and offers some preliminary results from a current attempt to look at the long-term consequences of participation in the Canadian experiment.

## II: “For Ye Have the Poor Always With You”<sup>2</sup>

There is, perhaps, no deeper ambivalence in social science than the question of how best to offer relief for the impoverished. On the one hand, there is a notion that the minimum income anyone ought to have access to need not be zero – or less. Simply existing as a member of any society ought, from this perspective, to guarantee an individual the right to a minimal living. On the other hand, there is the widespread and fundamental fear that we human beings are deeply flawed; without the fear of hardship to motivate us, why would we toil? This ambivalence was the motivation for the GAI experiments and is as old as recorded history. As political and social contexts shift over time, one or the other of these perspectives gains ascendance, but never universally and never for very long.

---

<sup>2</sup> *King James Bible*: Matthew 26:11.

The GAI experiments of the 1960s and 1970s were structured as negative income tax experiments. While the negative income tax is very much a twentieth century idea, first named in the mid-40s in the work of British civil servant Juliet Rhys Williams, the idea that any member of society ought to have access to at least a minimum guarantee is much older (Williams 1943, 1953).

Advocates for a minimum guaranteed income write from many perspectives<sup>3</sup>:  
The utopian socialist Charles Fourier writes of the *minimum*, an idea that permeates his writing, for the first time in *Letter to the High Judge* (1803):

Such will be universal harmony which will produce at least triple – yes, without exaggeration – at least triple the yield of the civilized system in a well-cultivated empire. Accordingly, while Harmony will greatly increase the wealth of the well-to-do, it will bring about an excessive increase in that of the people, to whom it will guarantee a salary or in old age a decent *minimum* below which they cannot fall. This beneficence will be all the more simple in that humanity will reproduce much less in Harmony than in civilization. (Fourier [1803] 1983: 87-89)

Even earlier Thomas Paine, who played such significant roles in both the American and French revolutions, advocated in *Agrarian Justice* (1797) that everyone might begin life with an equal inheritance:

Having thus in a few words, opened the merits of the case, I shall now proceed to the plan...:

To create a national fund, out of which there shall be paid to every person, when arrived at the age of twenty-one years, the sum of fifteen pounds sterling, as a compensation in part, for the loss of his or her natural inheritance, by the introduction of the system of landed property:

And also, the sum of ten pounds per annum, during life, to every person now living, of the age of fifty years, and to all others as they shall arrive at that age. (Cunliffe and Erreygers 1988: 6)

Some early advocates, like the American Quaker Cornelius Blatchly, wrote in 1817 from an avowedly Christian perspective:

Suppose we were a nation of seven millions of inhabitants, and that each person (if the whole property in the union was equally divided) would be entitled to a dividend worth 3000 dollars; and suppose (of the men and women who are adult, and hold property,) one seventieth of the whole population, or 100,000, die annually, these would have a property of three hundred million of dollars and more. As about 100,000 young people might annually arrive to the legal state of inheriting, each of these, would be justly entitled (according to this statement) to about three thousand dollars, as their just inheritance. This portion is due to each,

---

<sup>3</sup> John Cunliffe and Guido Erreygers have published an anthology of pieces on “basic capital” and “basic income” in *the Origins of Universal Grants* (2004) from which the Skidmore, Blatchly, Paine and Fourier examples are drawn.

as a member of the whole family, of whom God should be the head, as he is the author and donor of every good thing we enjoy. (Cunliffe and Erreygers 1988: 21)

Sometimes the title of the pamphlet is sufficient to tell us the gist: Thomas Skidmore: *the Rights of man to Property! Being a Proposition to make it Equal among the Adults of the Present Generation: and to Provide for its Equal Transmission to Every Individual of Each Succeeding Generation, on Arriving at Maturity* (1829).

The right of the poor to basic relief was the foundation of the “Speenhamland system” that motivated so much of the narrative of classical political economy. Speenhamland is a town in Berkshire County, England that decreed in May, 1795 that the poor shall be entitled to assistance based upon the price of bread and the size of the family. When the price of bread rose, poor relief funds were used to subsidize the working poor. This policy spread among the parishes, and was considered precedent-setting because relief was not limited to the elderly or infirm, but was extended to the able-bodied. In the wake of the decision, poor rates rose dramatically and a series of parliamentary reports, culminating in the Royal Commission Report of 1834 that set the stage for the New Poor Law, argued that the system impeded labour mobility and led to an increase in pauperization as indolence, sloth and immorality engulfed the working classes. This side of the story also has a lengthy history.

Since the Canadian *MINCOME* project will play such a significant role in this story, it is worth reporting that then-Prime Minister Jean Chretien, in 2000, began an exploration of the possibility of introducing comprehensive antipoverty legislation modeled on a guaranteed annual income. He went so far as to have the system costed which caused some alarm among political opponents.<sup>4</sup> There was significant media attention and the *National Post*, a newspaper with conservative sympathies, published an article that explicitly referred to the Speenhamland system:

The first enactment of a guaranteed annual income may have been in 1795 in England, where the Speenhamland system extended subsidies for the infirm to include able-bodied workers.... The system revealed the challenge inherent in designing such a policy; the supplement served as a subsidy that allowed employers to hire workers at below-subsistence wages, and allowed landlords to raise rents. Meanwhile, some workers found themselves better off collecting benefits than working. (Chialkowska 12 December 2000: A6)

The controversy surrounding the Speenhamland system, from the eighteenth century until the twenty-first, allows us a glimpse of the alternative perspective. The Royal Commission Report of 1834 is far from the only critique the system attracted, but it is the best known. Harriet Martineau was recruited as popularizer for the ideas embedded in the Report, and supplied with private papers by her publisher. She published the first volume of *Illustrations of Political Economy* in 1832, and is widely credited with helping to establish popular support for the New Poor Law of 1834.

---

<sup>4</sup> Ron Hikel interview, reports that Lloyd Axworthy was asked to cost a GAI as an “add-on” social programme. We are planning an interview with Axworthy to confirm.

Martineau's *Illustrations* come down firmly on the side of individual responsibility. Her figurative language and cavalier attitude towards what she represents as "fact" make us immediately aware that she is writing fiction. She created fictional families and fictional individuals that, no matter how well or how badly they conformed to the social "facts", were designed to underscore the agency of the individual. If individual circumstances are to change, then individuals have to change and, perhaps more importantly, individuals have it within their capacity to change. But Martineau's *Illustrations* tell precisely the same narrative as the Royal Commission Report of 1834. Individuals are poor because they are make bad decisions. They reproduce without the capacity to support their families and the necessary consequence of individual inadequacy is poverty. The role of social reformers is certainly not to prevent the poor from experiencing the necessary consequences of bad decisions, but rather to educate the poor to make better decisions. That education would be accomplished in two ways: first, didactic tales such as her *Illustrations* would act as warnings, and second, the Poor Laws should ensure that people do experience quickly and completely the consequences of bad decisions and are made to understand that these experiences are, in fact, the necessary consequences of their own decisions.

In North America before the Great Depression, the development of social assistance programmes was a piecemeal affair. Since the beginning, welfare policy in Canada and the US always concerned itself with the incentive issue central to the Royal Commission Report of 1834. The unemployable found relief through a set of uncoordinated private charities and local programmes, but the employable were not generously treated. For those not eligible for particular programmes, the labour market was the main source of support. If earnings were inadequate, families sometimes received unreliable support from charities and, more often, went without. In both Canada and the United States, the Great Depression heralded a set of social problems not before seen and encouraged the beginnings of some national welfare policies in both countries. Until the 1980s, these programmes were supported, or at least tolerated, by the majority of citizens.

In the wake of the Great Depression, welfare policy in both the US and Canada was based on a shared vision of how the economy ought to function. Individuals deemed capable of working should be able to find a job that paid a wage adequate to support a family. This would be ensured by minimum wage legislation. During downturns, the government would stimulate private employment and, if necessary, directly finance public employment and public works. Over time, new programs and insurance schemes for particular issues and problems emerged in both countries without coordination and without challenging the vision of welfare policy created during the 1930s.

Long-term support would be made available only to those who were unemployable – lone mothers with dependent children, the aged and the disabled. To the extent possible, social insurance would be the basis of such support through pensions of various types and workers' compensation for those injured on the job. Unemployment insurance would support the temporarily unemployed. For those without insurance coverage, means-tested support may be made available on a temporary or emergency basis. For those deemed

employable, the expectation was always that they would earn their support in the labour market and any income support in either country was doled out on a temporary basis. Notwithstanding the changes and refinements to the systems in both countries, that basic system brought into place by the Great Depression remained largely intact until the 1960s.

In the 1960s, activists in both the US and Canada began to question the *status quo*. In the US, newly elected Democrats ushered in a series of new programmes. In 1961, Aid to Families with Dependent Children was amended to offer assistance to the unemployed. Food stamps were introduced in 1964, and the programme expanded in 1971 and 1974. Social Security amendments of 1962 and 1965 introduced federally funded social services and health care programmes for welfare recipients and the retired. The Office of Economic Opportunity was created in 1964 to fight President Johnson's "war on poverty".

In Canada, there were parallel developments. After WWII, family allowances were introduced. Canada is a federal country, and many social welfare policies remain the responsibility of the provinces although the federal government began to take leadership to ensure similar programmes across the country. The Canada Pension Plan, designed to augment Old Age Security and private pensions, was introduced by the federal government in 1966, although planning began in the late 1950s. Quebec had objected to a national scheme, and the system was only implemented after negotiations that culminated in a separate, parallel system in Quebec. Throughout the 1960s, debates about universal health insurance similar to a scheme introduced in Saskatchewan in 1961, culminated in a series of policy changes that saw all provinces with fully complying plans in place by 1972. Income support schemes remained the responsibility of the provinces, but the federal government increased its support of provincial plans throughout the 1960s.

By the 1960s, debate about income support schemes emerged in both countries. In the US, the old liberal-conservative debate about the appropriate level of generosity was complicated by a new set of controversies emerging in the Office of Economic Opportunity. Some began to question the basic vision of New Deal policies, wondering whether all the reforms envisioned would be sufficient to eliminate poverty. This set the stage for the emergence of Guaranteed Annual Income debates.

The distinguishing feature of the North American Guaranteed Annual Income experiments is that they were based on the idea of a negative income tax. Lady Juliet Rhys Williams (1898 – 1964), a British civil servant, is credited with inventing the phrase "negative income tax". She began her career as private secretary to the Director of Training and Staff Duties at the Admiralty in 1918, and became private secretary to the Parliamentary Secretary, Ministry of Transport, 1919-1920. A member of the Liberal Party, she contested Pontypridd (1938) and Ilford North (1945), and was Honorary Secretary of the Women's Liberal Federation in 1943.

Her ideas on income tax reform were adopted by the Liberal Party and published as a Liberal Party Yellow book. The first scheme that she produced was in 1944 for the

reform of income tax. This was taken up by the Liberal Party and adopted as party policy and a pamphlet describing it produced. She refined the scheme in 1950 so that income tax and social security were both dealt with. She gave evidence before a Royal Commission on Taxation of Profits and Incomes on the reform of income tax. In 1945, she left the Liberals and joined the conservative Party where she later became an influential member of the Monday Club. She maintained a large and active correspondence with politicians and economists (including Harold Macmillan and Sir Roy Harrod and JE Meade) related to her economic ideas.<sup>5,6</sup>

The most well-known advocate of the negative income tax in North America was Milton Friedman who championed the idea in *Capitalism and Freedom* (1962). Advocates of the negative income tax saw it addressing several problems simultaneously. It would eliminate the need for a minimum wage, which could be characterized as an inefficient incursion into the labour market. It would eliminate the “welfare trap” in which individuals moving off welfare and into the labour market face a strong disincentive in the form of very high marginal tax rates. Gaps in social programmes would be reduced, as the system was reformed into a seamless whole. Moreover, using a single bureaucracy to administer an income tax/social security scheme in the form of a negative income tax was bound to be more efficient than a set of parallel bureaucracies administering inconsistent and overlapping programmes. Critics responded that the potential for fraud under a negative income tax scheme would exceed that of the income tax, because the monetary returns to fraud could potentially exceed an individual’s total tax liability. This would, they argued, soon require expensive policing that would wipe out any administrative savings. More significantly, critics of the schemes worried that labour markets would suffer under a negative income tax scheme, because individuals, who would receive a minimum payout even if they chose not to work, would react to the disincentive. This last concern set the stage for the negative income tax experiments of the 1960s and 1970s.

### III: Welfare Reform in the 1960s and the Guaranteed Annual Income

The US war on poverty was declared by the Johnson administration in 1964. At that time, there were 36 million people living in poverty (Harris 2005: 77). During the next decade, existing programmes were modified and expanded. Large new expenditures were targeted towards education, health care and housing. The GAI movement grew in the excitement of massive policy expansion. But after twelve years of significant expenditure growth, the number of people living in poverty still stood at 26 million, because most of the new money went to social insurance programmes, particularly Social Security. Direct transfers to education and health care may have improved the quality of life for many people, but had little effect on employability or incomes of the poorest.

---

<sup>5</sup> Seventy-six boxes of Rhys-Williams’ papers are at the British Library of Political and Economic Science, described at <http://library-2.lse.ac.uk/archives/handlists/RhysWilliamsJ/RhysWilliamsJ.html>.

<sup>6</sup> After World War II, Rhys Williams served as Honorary Secretary of the Economic Section, Congress of Europe and the Hague in 1948, Honorary Secretary of the United Europe Movement, 1947 - 1958, and Chairman from 1958. She was a governor of the BBC from 1952 to 1956, and served on many boards and committees related to health and health care delivery. She wrote pamphlets, articles and books on politics, economics, philosophy and religion and had novels and plays published.

During the early and mid-1960s, a large number of plans and proposals to improve the welfare scheme circulated both within and outside government. By the end of the Johnson administration, most of these proposals had been discarded as too costly. The debate was not cast simply between liberals and conservatives, or even between Republicans and Democrats. Everyone agreed that the existing system, which had grown slowly and haphazardly, needed reform. It was costly to administer, inequitable and, most damning, it seemed not to do very much to eliminate poverty.

The first antipoverty plan was introduced to the White House by Sargent Shriver, director of the Office of Economic Opportunity from 1964 to 1969. There were three components to the plan: large-scale public employment, community action and a negative income tax. In each subsequent year of his term, as part of the budget cycle, he introduced a new plan which met with a similar fate. The details differ, but all contained a negative income tax, and all were accompanied by a vast number of reports and memoranda with detailed plans for implementation. These reports took a fundamentally different position than traditional welfare advocates in the US. They included studies on the characteristics of the poor, and argued that the only way to increase income was to provide a system of supplements. They damned the piecemeal nature of the existing schemes, which introduced vast inequities between families that qualified under different programmes and excluded, in most cases, the working poor. They focused on work incentives, and documented the operation of the welfare trap. And, most significantly, they argued that the costs of a negative income tax scheme would be contained if the government maintained full employment and noted that, if the government failed at that task, the costs of the failure would (and should) be borne by the budget rather than by the poor.

Traditional welfare advocates, located largely in the AFL-CIO, the Department of Health, Education, and Welfare (HEW) and the Department of Labor, countered that the basic scheme put into place in the 1930s had never been fully implemented and never been given the opportunity to eliminate poverty. They advocated incremental changes in existing programmes, specifically increased minimum wages, unemployment insurance, the expansion of the AFDC, increased Social Security benefits, better manpower training, and full employment policies. They opposed, in principle, treating the employable the same as those who are deemed incapable of work, and many argued that the government ought to be the employer of last resort. Many of these traditionalists had played significant roles in introducing and advocating for existing programmes, and saw the criticism from the negative income tax advocates as unfair; their own schemes had never been adequately funded or fully implemented.

The OEO plan was debated from 1965 until 1969 when Johnson left office. Each year the latest plan was considered by a White House task force. In 1965, Otto Eckstein of the Council of Economic Advisors chaired one of the task forces; he was cautiously supportive and considered a number of variants. A 1966 task force recommended that a presidential commission review plans for a negative income tax. While supportive of the radical schemes, these task forces feared political opposition. A commission, chaired by Ben Heineman, was established in 1968. It reported in 1969, after Johnson had left office,



and recommended that the existing welfare scheme should be replaced by a negative income tax. By then, however, the new president – Richard Nixon – had already declared support for a more limited form of welfare reform.

Nixon's proposal began with a pre-election study prepared by Richard Nathan of the Brookings Institute. That report fit the traditionalist view. It advocated maintaining the existing programs, making benefits more generous, and increasing federal support. It continued to exclude the working poor. This proposal was debated for nearly a year, and split the new Republican administration much as earlier proposals had split the Johnson Democrats. Planners from the Department of Health, Education and Welfare argued that the Nathan plan would perpetuate existing inequities because it excluded those not categorically eligible for welfare. They proposed an alternative that would raise benefit levels for existing programmes for the aged and disabled, but would replace the AFDC programme with a negative income tax. This would make male-headed families eligible for support. Daniel Patrick Moynihan, former Democratic official then Domestic Affairs Advisor to Nixon, became a champion of the HEW plan.

The HEW plan, however, ran into opposition from administration conservatives, led by Arthur Burns, Counselor to the President. He not only opposed extending the plan to include "employables" but argued that existing eligibility should be curtailed. While he argued that existing benefit levels for the unemployable should be raised to a national minimum in all states, he argued that day care centres and training programmes should be expanded to put welfare mothers to work. Ultimately, the HEW plan was announced in 1969 as the Family Assistance Plan (FAP).

At the same time, the Food Stamp programme was expanded in 1969 to become a universal programme that mandated a minimum guarantee, in the form of coupons, to all Americans which would be reduced by 30% of earnings. In effect, this is another form of negative income tax. The two plans together would have guaranteed a minimum of \$2,400 a year for a family of four with no other income, with a tax-back rate of 65% -- significantly higher than negative income tax advocates would have preferred. The childless would have received food stamps alone.

The FAP ultimately failed in the Senate. Some have argued that, although the proposal came from Nixon himself, he did not want the plan to be adopted and failed to try to gain the votes necessary for passage. HR Haldeman, Nixon's chief of staff, published his diaries in 1994. For 13 July 1970, he notes:

About Family Assistance Plan, wants to be sure it's killed by Democrats and that we make a big play for it, but don't let it pass, can't afford it.

The administration supported FAP and it passed the House in 1970, with some modifications. Then the Senate Finance Committee held hearings, and the attack was led by Republican Senators. They garnered support from traditional liberals who felt the plan not generous enough.

In 1971, a similar plan was introduced by the administration, with one significant difference. Employables would be segregated into the “Opportunities for Families” programme run by the Department of Labor, required to participate in training and job search programmes, but ultimately still guaranteed support when unemployed. This time, the Senate Finance Committee not only defeated the bill, but substituted its own plan in the form of a “Guaranteed Job Opportunity for Families”. Supported by Senator Long, this plan was designed to infuriate both liberals and conservatives. Those who could work would be guaranteed work by the government, who would pay only \$1.50 per hour up to 32 hours a week, which would generate \$2,400 per year or the same income that the FAP would guarantee a family of four. It also provided wage supplements to people employed in the private sector, and a rebate of Social Security taxes. Senator Ribicoff developed a more generous version of the original FAP, hoping to win liberal support, and it was offered as an amendment to the Finance Committee bill. The amendment was rejected, and Long’s version adopted.

The House and Senate had passed inconsistent amendments to the AFDC, and both were dropped in conference. As a consequence, AFDC remained unchanged by the Social Security Act Amendments of 1972. The rest of the system, however, was radically liberalized. Federally supported but state-run programmes for the disabled were replaced by a federally operated income assistance programme structured as a negative income tax.

The American GAI experiments began under the OEO and continued within the Department of Health, Education and Welfare after the Nixon administration abolished the OEO. The money came from the Community Action Demonstration Program, which existed from the foundation of the OEO. This fund had been used to pay for a number of somewhat radical community programs, and critics charged that the government was funding political dissent. It was easy, therefore, to divert the funding to a scheme proposed by mainstream labour economists, and supported by a government Department (Levine et al.: 97). The main goal of the experiments was to establish the size of the labour supply response to a GAI. As the data began to emerge, investigators began to ask other questions. How does a GAI affect human and other capital accumulation? What is the effect on family formation and fertility? How is health affected?

The first experiment was conducted on an urban population in New Jersey and Pennsylvania between 1968 and 1972. A second experiment was conducted in Gary, Indiana to examine the effect of a GAI on single parents. A third experiment was conducted in North Carolina and Iowa to look at the effects on rural populations. The final experiment was the Seattle-Denver Income Maintenance Experiment (SIME-DIME) which had access to a much larger experimental population. These experiments were the first large-scale social experiments and consciously modeled on techniques from the natural sciences: “we wanted to try *science* to find out something very specific” (Levine et al.: 97). The researchers used a randomly selected experimental population, and matched controls. They collected quantitative and qualitative data from both subjects and controls to determine the effect of the GAI on a wide variety of social behaviours.

The results of the experiments were debated in policy circles and in the media at two different times. In 1970, when the FAP was being debated in the House and Senate, the administration encouraged researchers to release results. These preliminary results showed very modest labour market responses, but were dismissed by critics as premature. In the late 1970s, during the discussion of Jimmy Carter's Program for Better Jobs and Income, the results again attracted attention. This time, the very modest labour market responses did not attract nearly as much attention as another finding: researchers found a significant increase in the divorce rate. Apparently, only some choices are desirable. Critics also pounced on the small labour market responses, arguing that any response at all is a fatal flaw.

Criticism from the left focused on the "culture of poverty" – the idea that poverty did not have very much to do with income or, to put it in more modern guise, "throwing money at the problem will not fix it". The reaction from the right dismissed the GAI as politically impossible anyway, and therefore the experiments were a waste of time. When Nixon came to office, he appointed Donald Rumsfeld to head the poverty programme, and Rumsfeld brought along an assistant named Dick Cheney. Robert Levine, one of the original experimenters who went on to work for the Rand Corporation, credits Rumsfeld for saving the poverty programme by shifting them in a republican direction, towards "experimentation rather than action" (Levine et al. 2005: 98).

The experiments generally found a 13% reduction in work effort from the family as a whole, with one-third of the response coming from the primary earner, one-third from the secondary earner and the final third coming from additional earners in the family (Levine et al. 2005: 99). Since the primary earner generally worked many more hours than the secondary and tertiary earners, this implied a relative small reduction in the number of hours on the part of the primary earner. Female spouses reduced their hours and re-entered the workforce less quickly after a break. Tertiary earners tended to enter the workforce later, which implies that they stayed in school longer. The biggest effects, that is, could be spun as either an economic cost in the form of work disincentives, or an economic benefit in the form of human capital accumulation. The general result that secondary earners tend to take some part of the increased family income in the form of more time for household production, particularly staying home with newborns, was found in all the experiments.

The most damning result came in the form of family dissolution rates in the SIME-DIME experiment. These results seemed to imply that black experimental families had a divorce rate 57% greater than the controls, and white experimental families had a divorce rate 53% greater than the controls. This finding caused Senator Moynihan to withdraw his support for the GAI and was largely responsible for the failure of Jimmy Carter's welfare reform scheme. Further analysis of the data, published in 1990, rejected these findings as a statistical error, and no other experiment found any effect on marital stability (Cain 1990).

In North Carolina, children in experimental families showed positive results on elementary school test scores. In New Jersey, data on test scores was not collected, but a

positive effect on school continuation rates was found. In SIME-DIME there were positive effects on adult continuing education (Levine et al. 2005: 100). These results are all the more remarkable when juxtaposed to the academic literature that shows it is almost impossible to affect test scores, dropout rates or educational decisions by direct intervention.

Inconsistent attempts were made to collect health data, specifically on issues such as low birth weight which can be associated with significant deficits in later life. The Gary, Indiana study found positive effects on birth weight in the most at-risk groups (Levine et al. 2005: 100).

For a moment, it looked as though the war on poverty might take a new twist. The political right, however, mobilized. Opponents of welfare reform seized upon the results of the experiment to prove that a GAI was impossible. By the late 1970s, results showing very modest effects on work effort were portrayed as disastrous for the labour market. Senator Moynihan, who was initially a strong political advocate for the scheme, dropped his support when the initial (erroneous) effects on family dissolution came in. More extreme reactions came from Senator Williams from New Jersey, an opponent of the FAP, who argued that the experimental families were “double-dipping” and should be prosecuted for welfare fraud. David Kershaw, who was then running the experiments, went to great lengths to protect the confidentiality agreement experimenters had with subjects and prevent the congressional investigators unleashed by the General Accounting Office from seizing the files. Whatever the scientific merit of the experiments, the political moment for a general GAI in the US had passed.

#### IV: The Canadian Experiment

The Canadian experiment came into play in a slightly different way than the US experiments. Poverty was equally a concern in Canada and the centerpiece of Canadian antipoverty legislation was the Canada Assistance Plan, inaugurated in 1967. In 1970, the Department of National Health and Welfare published a report entitled *Income Security for Canadians* (the White Paper) that proposed to reform family allowances by introducing the Family Income Security Plan. In 1971, a Senate Committee report, *Poverty in Canada*, called for a universal GAI based on the negative income tax principle. At the same time, the Quebec Commission of Inquiry on Health and Social Welfare (the Castonguay-Nepveu Commission, 1971) recommended major restructuring of social programmes in Quebec. The federal government, without provincial consultation, made major enhancements to the Unemployment Insurance Program in 1971. socialist

This was a period of significant social spending, enhanced by the political situation. The Trudeau Liberals were in a minority government position and the (social democrat) New Democratic Party held the balance of power. The Liberals were pressured by the NDP to consider social programmes in return for political support. The NDP had been vocal in support of a GAI.

This being Canada, nothing is quite so simple. The real impetus for a GAI came from a totally unexpected quarter. In 1971, a federal-provincial conference held in Victoria attempted to rewrite and patriate the constitution. On the edge of agreement, Quebec declared it could not support the “Victoria Charter” because “it failed to provide for a jurisdictional settlement in the field of social policy” and “no patriation of the constitution would be possible until those concerns were satisfied” (Van Loon 1979: 474).

Disappointment was profound. Discontent at the 1972 conference of Provincial Welfare Ministers focused on the federal government’s unilateral changes to unemployment insurance in 1971 and its proposed reform of family allowances. Several provinces demanded that the federal government hand over to them the jurisdiction and resources to fund the family allowance programme, and the Conference called for a joint review to rationalize the social security system in Canada (Johnson 1975: 457).

The Throne Speech of 4 January 1973 called for such a review and the *Working Paper on Social Security in Canada* (the Orange Paper) appeared in April of the same year and set the stage for the discussions. The GAI attracted policy attention, and policymakers were intrigued by the US negative income tax experiments. The 1971 White Paper had explicitly drawn attention to these experiments:

An overall guaranteed income program for the whole population that is worthy of consideration is one that offers a substantial level of benefit to people who are normally in the labour market. Therefore, a great deal of further study and investigation, like the experiments now under way in New Jersey and Seattle in the United States, is needed to find out what effects such a program would have on people’s motivation, on their incentives to work and save. Until these questions are answered, the fear of its impact on productivity will be the main deterrent to the introduction of a general overall guaranteed income plan. (41).

This interest at the federal level had a counterpart in the province of Manitoba, which had just elected its first NDP government under Premier Ed Schreyer. Manitoba had declared its interest in an administrative test of the GAI as early as 1971. In March 1973, Manitoba submitted a proposal for funding of a full experiment (rather than an administrative test or pilot project) to the federal Department of National Health and Welfare. It contemplated a budget of \$17 million and contemplated enrolling well over 1,000 families, with Ottawa paying 75% of the costs. On 4 June 1973, Manitoba and Canada formally signed an Agreement Concerning a Basic Annual Income Experiment Project covering cost-sharing and jurisdictional issues. The joint news release announcing final approval claimed:

The Manitoba experiment is expected to make an important contribution to the review of Canada’s social security system launched last April by all ten provinces and the federal government. (22 February 1974)

The design of the project selected families from three sites: Winnipeg, the rural community of Dauphin and a number of small rural communities. The Winnipeg sample was designed along the same lines as the US experiments: subjects were randomly selected from Winnipeg, and paired with matched controls from the same community. Even though the data were collected and compiled by “family”, individuals were the subjects of the experiment. The sample was dispersed. The major advantage of this design was that subject families were isolated from one another, which made it possible to vary the parameters of the negative income tax between families. The randomly drawn dispersed sample, and the use of controls, also made it possible to isolate the effects of the GAI and to draw conclusions about causation. The main goal was to gauge work response, and therefore the disabled, the institutionalized and the retired were excluded. This is the only part of the experiment that received research attention, and ultimately the findings were very similar to US findings: secondary and tertiary wage-earners tended to have a moderate labour market response, while primary earners showed little reaction.

The Canadian experiment, however, had one unique feature. It is the only experiment that contained a “saturation” site. Every family in Dauphin and its rural municipality, with a population of approximately 10,000, was eligible to participate in a GAI programme. This time, the elderly and the disabled were not excluded. The justification at the time was that the isolation of the treatment sample in the classic experiments would put families in a highly unrealistic situation, quite unlike the conditions that would attend a universal programme. The Dauphin site was explained as an attempt to answer questions about administrative and community issues in a less artificial environment (Hum and Simpson 1991: 45). The second research director, Derek Hum, reiterates the scientific mindset of the US researchers, writing:

The notion of an experiment is exemplified by the research approach commonly employed in the natural or physical sciences. Generally speaking, the procedures entail special actions to support or falsify hypotheses under controlled conditions, where control is effected by the experimenter either by actually fixing certain conditions or statistically by randomization. The term “experiment” therefore strictly excludes “demonstrations”.... The final design of *MINCOME* may be described then as a hybrid. It conformed to the format of the “classic” experiment (the Winnipeg portion), but it also included “demonstration” aspects (Dauphin). (Hum and Simpson, 1991: 45)

Michael Laub, the first research director of *MINCOME*, explained that he had also imagined a universal programme might have macroeconomic consequences that the classic design could not answer.<sup>7</sup>

How do you introduce controls into a saturation site? The experimenters decided to create a “shadow” Dauphin by choosing families in a number of nearby, similar communities. The Dauphin sample received the treatment, but their counterparts in these other communities answered the same set of questionnaires and participated in the interviews and data collection.

---

<sup>7</sup> Email correspondence with Michael Laub (October 2005).

The question of why Dauphin was selected as the saturation site has no simple answer. Researchers sought a community of about 10,000 people, near enough to Winnipeg that it could be easily administered, but isolated enough that it could be seen as a self-contained site. A number of other towns were considered, but all rejected because they were too close to Winnipeg and too much in the nature of bedroom communities. Dauphin was an agricultural community, isolated by roadways and geography.

The actual conduct of the experiment ran into difficulties fairly quickly.<sup>8</sup> It was understood from the outset that “research” would be a joint responsibility, but Manitoba would be responsible for administration. Midway through the experiment, with the social security review disintegrating and political support for the GAI waning, the project was altered in two ways. First, research veered away from the original focus on work incentives towards administrative issues. Second, the project was directed to adopt an “archive” strategy. That is, researchers would collect and archive data, but not engage in analysis.

The main reason for this change was financial (Hum and Simpson 1991: 43 – 47). The original budget of \$17 million was never more than a wild guess and, in the event, proved far inadequate. The inflationary price increases of the 1970s, coupled with a larger than anticipated unemployment rate, meant that the proportion of the total going to programme expenses exceeded estimates and was not under the control of the researchers. The payments to families were inflation-adjusted, but the budget was not. Moreover, these were statutory expenses. Costs for data collection would also have spiraled out of control, because wages paid to staff were not entirely under the control of researchers. Analysis was the last claim on the budget, and it was funded from an ever diminishing residual.

The first response was to cut secondary research programmes. Originally, there were to be four foci: an economic programme that centred on work incentives; a sociological programme that looked at family formation, community cohesiveness and attitudes, mobility and the like; an administrative programme and a statistical programme. The sociological programme was the first to go. The researchers used ethnographic methods that were highly suspicious to quantitatively-oriented senior research staff – open-ended interviews, participant-observer methodologies and so on. Press accounts of this research were disparaging, claiming that all privacy must be foregone by participants in exchange for a little money. Research on the farm labour supply was the next to go. It had always been seen as a concession to Manitoba agricultural interests, but of no real importance. When it became clear that no more money would be forthcoming and that the original budget would not even allow a reasonable estimate of labour response, the primary motivation of the experiments, the researchers declared the research project a “success”,

---

<sup>8</sup> The details of the *MINCOME* experiment and the way it operated come from working papers and articles, when cited, but most come from formal and informal conversations with Ron Hikel (the senior Manitoba civil servant charged with overseeing the experiment, Michael Laub (founding research director), Derek Hum (second research director) and Wayne Simpson (a labour economist who, with Derek Hum, has published some work on the Winnipeg sample).

shut it down, and spent the rest of the life of the project focusing on administrative issues which would be both cheap to undertake and necessary since the money still flowed to participants. The project was told to archive whatever data had already been collected for later analysis.

In the end, the project ran for four years concluding in 1979, but the data collection lasted for only two and virtually no analysis was done by project staff. Part of the explanation is a change in the intellectual and economic climate. The social security review was no longer a priority, and the GAI no longer a fashionable interest. There was no appetite, either in Ottawa or among the public, for the large and sweeping reforms that had been talked about at the beginning of the decade. The changes in government, both federally and provincially, reflected the changing mood. Neither the Progressive Conservative government of Joe Clark in Ottawa, nor Sterling Lyon's Tories in Manitoba, were interested in continuing the GAI experiments.

The fate of the original data themselves – boxes and boxes of paper files on families containing questionnaires related to all aspects of social and economic functioning – was unclear. They were stored in an unpublicized location by the Department of National Health and Welfare. In 1981, The Institute for Social and Economic Research was created at the University of Manitoba, with funding from the federal government and a mandate to prepare the data for research. The Institute inherited a poorly organized collection with no finding guide. The *MINCOME* project staff, with no expertise in archival techniques, had simply packed up the contents of the file cabinets, copied whatever data tapes existed, and locked the doors. The federal government apparently paid rent on a downtown office suite until 1981 when, in some desperation, they convinced the University of Manitoba to take over the files. In the end, only the Winnipeg sample, and only the labour market aspects of that sample, was ever made available. I have recently discovered the original paper data archive, 1800 cubic feet of it, still in cardboard boxes and still with no finding guide, in a warehouse in Winnipeg maintained as part of the National Archives. The Dauphin data, collected at great expense and some controversy from participants in the first social experiment ever conducted in Canada, were never examined.

#### V: Reconsidering Dauphin

The Dauphin saturation site is important for several reasons. The researchers believed themselves to be using a saturation site to gather data on programme administration and agricultural labour supply. Michael Laub, more prescient than most, imagined that a universal GAI might impact aggregate demand, and a saturation site might provide evidence of that effect. A saturation site, however, is a very different kind of social experiment than the dispersed samples of the other experiments, and can in principle provide a different kind of insight more amenable to sociology than to economics. Without their necessarily being aware of it, the researchers set in motion a process that can cast some light on a controversy that has characterized the social sciences since their inception. What is the appropriate unit of analysis – the individual, the family, or some larger aggregate that we might term a community? Even the dispersed samples of the



original experiments were somewhat inconsistent. Data were collected and compiled by “family”, but the locus of interest was the labour market behaviour of individuals. In the Dauphin sample, this issue came to the fore.

Imagine that you are a sixteen-year old boy in Dauphin in 1974, trying to decide whether to register for grade 12. Your family will come from one of three informal social classes (Rhyne 1979)<sup>9</sup>. You might be “English”. If so, your family probably belongs to the economic elite of Dauphin – professionals, some business owners, large landowners and many of the civil servants employed in Dauphin fell into this category. You are probably going to grade 12 and, later, to college or university in Winnipeg or Brandon. You might be Métis. Your family may well be living on the other side of the river, in a community dubbed “little Chicago”, with a much lower family income. Your parents may be seasonal farm workers who experience regular bouts of unemployment. You probably do not plan to continue high school. Most likely, however, you will be “Ukrainian”. Your family will probably attend one of the two large Ukrainian cathedrals in town – the Orthodox or the Catholic. Your father will probably be a tradesman or work for the railway, and your mother will be a homemaker, a nurse in the large regional hospital, an elementary school teacher or a retail clerk. Your parents may own a small business that services the agricultural community. For you, the decision about whether to continue to grade 12 will be difficult. There are good jobs for strong boys without a high school diploma in Dauphin in 1974; you could work for the railway, in the trucking industry or in the trades like your father, and expect a decent lifetime income. You may experience considerable family pressure to contribute to family income. Grade 12, and ultimately university, will not be a foregone conclusion.

To make your decision, you (and your parents) will take into account the probable income your family will receive next year from all sources, including the GAI. Your decision, even in the classic experiments, would be useful because researchers could know how the extra income security associated with the GAI would affect incentives for human capital formation. In Winnipeg, however, you would be making that decision in isolation from other young people whose families could also benefit from the GAI. In Dauphin, not only would your decision be affected directly by the expected income associated with the GAI, but also by the fact that all your friends would be making a similar decision and all could expect to benefit from the GAI if family income warranted it. That interaction effect would show up in Dauphin, but not in the classic experiments. Analysts could, in principle, determine the full effect of the GAI in Dauphin, which would work both directly and indirectly through changes in social attitudes. But the price they pay for knowing the full effect is that they cannot get a precise estimate of the direct effect of the money on human capital formation. The two parts of the experiment, therefore, yield two different kinds of evidence. The classic experiment, in Winnipeg, yields good data for labour economists. The Dauphin experiment yields fascinating data for sociologists.

---

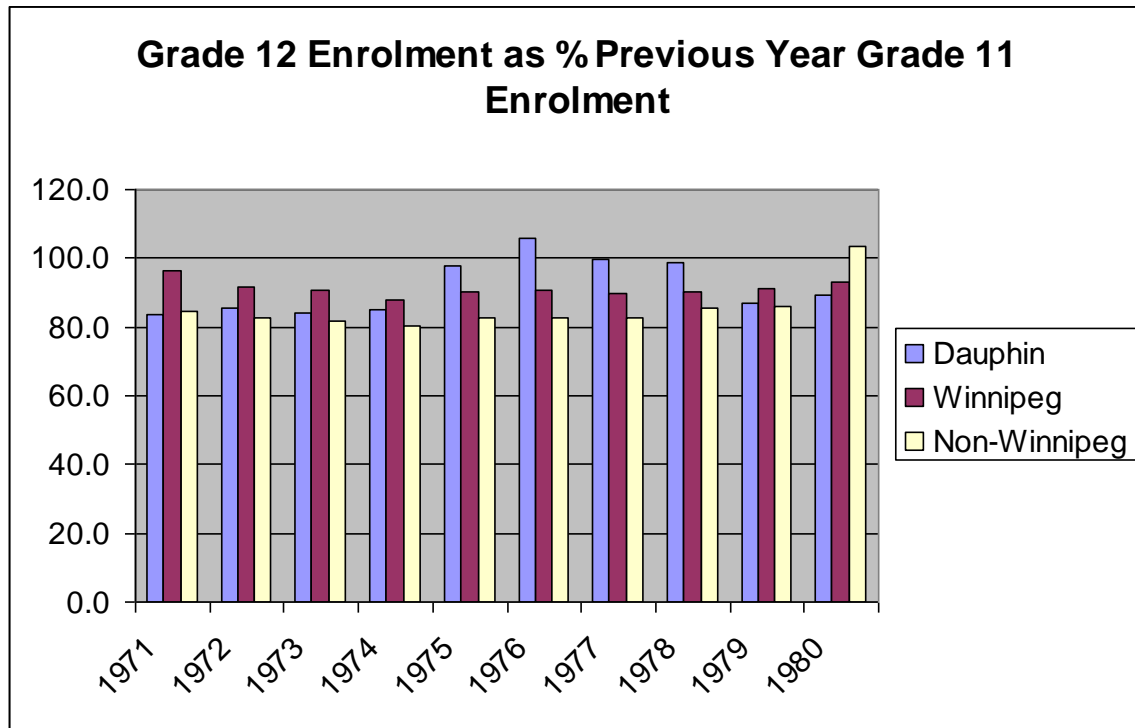
<sup>9</sup> Darla Rhyne completed a sociology thesis at the University of Toronto in 1979, under the supervision of James Turk, on class and ethnicity in “River City”, the pseudonym for Dauphin. She was one of the controversial ethnographers, who lived with families in Dauphin and collected data on all aspects of social life.

The question of the appropriate unit of analysis has a long history in social science and, particularly, in antipoverty policy. In the mid-19<sup>th</sup> century, political economists who favoured the New Poor Law emphasized the agency, and the responsibility, of the individual. If individual circumstances are to change, then individuals have to change and, perhaps more importantly, individuals have it within their capacity to change. That was not, however, the only approach of social theorists during the period. William Farr, under whose supervision the 1851 British census was conducted, was a population health expert and sanitary reformer. Farr downplayed the idea of individual agency and suggested that individuals and families are who they are and do what they do because of the circumstances that govern their lives, including where they live and how much money they have. To change the individual, one must change the environment – fix the water supply, build the sewers, clean up the housing and the streets, and provide adequate subsistence so that individuals and families can make better decisions. The central problem, in Farr’s estimation, was how one could intervene in a way that improved the capacity of families to make better choices without creating disincentives for individuals and families to work and to strive to better their own conditions. This mid-19<sup>th</sup> century debate repeated itself in the social policy debates of the next century and a half, and still continues. Quite unwittingly, the *MINCOME* researchers set the stage for an investigation of these two worldviews, by including a saturation site in Dauphin.

When I decided to investigate the Dauphin site for evidence that could illuminate this controversy, I was confronted with 1800 dusty boxes, and traces of a few obsolete data tapes. I wondered if we could examine the consequences of the *MINCOME* experiment by taking advantage of a unique population health database maintained in Manitoba. Some US experiments had gathered data on health outcomes, and we might be able to replicate some of their findings (Kerachsky 1977, Lefcowitz and Elesh 1977). Before I could justify access to that data, however, I needed some evidence that it could, in principle, work. One of the effects that we expected might occur was that more adolescents, and especially more adolescent males, might continue high school beyond the mandated age (Mallar 1977; Maynard 1977; Maynard et al. 1979; McDonald and Stephenson 1979; Rea 1977; Weiss, Hall, Dong 1980). We accessed aggregate data from the Department of Education, presented in Figure 1 below.

Grade 11 enrollments as a percentage of the previous year grade 10 enrollments show a similar pattern. We could not disaggregate by gender. This figure is based on aggregate enrollment data provided by the Department of Education and does not control for underlying population dynamics. However, the population was stable and there were no classification issues that we are aware of. Money flowed to Dauphin families from *MINCOME* between 1975 and 1978. Dauphin students seemed more likely to stay in high school than their rural or urban counterparts, during the experiment while they were less likely than their urban counterparts, and not significantly different from their rural counterparts, either before or after the experiment. We suggested that if aggregate data could pick up such an effect, the detailed individual data maintained in the population health database would be much more useful.

FIGURE 1



Intrigued, Manitoba Health allowed access to the medicare data, which extends back to 1970, and CIHR funded the project. Ethical consideration would not allow us to identify families in receipt of income assistance through *MINCOME*, so we decided to look only for the community-level consequences of *MINCOME* such as we thought we had discovered traces of in Figure 1. But we needed a theoretical justification for why we expected to find effects on population health when only some families received support under the programme.

Income security is conceptualized in many different ways in the social science literature. Sometimes it is treated in a way that makes it virtually indistinguishable from socioeconomic status or poverty (Luckhaus 2000). More often, it is conceived as periods of time on social assistance, or periods of time below some significant marker such as the Statistics Canada low-income cutoff (LICO) (Sandefur 1997, Yelowitz 1996, Harris 1996). We are using the concept in a way that is more common in the economic literature: income security exists when the future risk of falling below a particular income level is minimized (Bertola 2004). That is, the GAI is conceived as an insurance policy. In the same way that people who buy fire insurance on their houses perceive the policy to be beneficial even if they never collect, the GAI benefited everyone in the saturation site, including families that never collected payments under the scheme. The benefit to those who did collect payments is obvious, but those whose incomes exceeded the threshold and therefore did not qualify still benefited from the reduction of risk. Because this is an agricultural community and even those working in other sectors had incomes dependent

on harvests and agricultural prices, few people knew in advance whether they would qualify or not. The health benefits, including the willingness to allow potentially useful adolescent children to stay in school rather than encouraging them to work, is dependent on perceived risk and not directly on whether the family qualified for support after the fact.

Since *MINCOME*, Evans and Stoddart (1994) developed a conceptual framework that emphasizes the social determinants of health. In the tradition of William Farr, Evans and Stoddart argued that economic well-being is fundamental to the health of populations. However the precise pathways by which income influences health outcomes are less clear. Research has examined the relationship between health and each of the related concepts of mean family income, income distribution and the incidence of poverty. Our focus is on a different dimension of economic well-being: income security, which is a concept distinct from income or socioeconomic status. Income security, the guarantee that all participants can expect a basic annual income whether or not they work, gives people a longer planning horizon, allowing them to get beyond just making ends meet. Moreover, a universal program avoids targeting individuals because they are “unemployed” or “single parents”. Universality promotes social cohesion; a universal guaranteed annual income becomes a shared social experience rather than simply an individual benefit. At least some of the US researchers focused on these community aspects of the GAI (Ladinsky and Wells 1977).

For some individuals, whose families were promised income security during particularly vulnerable periods of their lives, the health and social consequences may have lasted much longer than the experiment (Brownell et al. 2004a, 2004b, Chen et al. 2002, Connor et al. 1999, Haveman et al. 1994, Hertzman 1999). Adolescents, for example, may have been able to graduate from high school, rather than entering the labour force earlier or working on family farms. Figure 1 summarizes aggregate enrollment data that seems to suggest that an unusually large “lucky cohort” of adolescents in the saturation site did continue in high school during the experiment. Their contemporaries elsewhere in rural Manitoba, by contrast, seemed to follow earlier patterns of leaving school before graduation. The life chances of adolescents in the experimental site may have been permanently altered and, although more tenuous, their own children may have benefited from the better economic outcomes of their parents (Haveman et al. 1994, Hertzman 1999). In Manitoba as elsewhere, young children in rural areas suffer higher rates of accident and injury than their urban counterparts (Brownell et al. 2002, Brownell et al. 2004). Did young children in the experimental site have better outcomes than their counterparts elsewhere because an income guarantee for their parents made it less likely that children would undertake age-inappropriate tasks during a harvest, or more likely that adult supervision would exist?

Our data allow us to revisit the experimental population more than two decades later, in order to document any lifelong health and social differences. Several other Canadian provinces have organized data in a similar fashion, but the breadth and depth of the Manitoba database with a population-based research registry offers unique opportunities. The research registry contains no names or street addresses, but it does include an

encrypted number assigned to each resident by Manitoba Health. It also contains demographic characteristics, family composition, dates of arrival and departure including births and deaths, and place of residence (a 6-digit postal code). Time-sensitive data elements (place of residence, family composition) are updated using “snapshot” registries provided every six months since 1970 (Roos and Nichol, 1999). This registry includes all Manitobans registered to receive health care, making it possible to track residence in Dauphin during *MINCOME*, as well as moves into, out of, and around the province. Births and deaths in Dauphin and elsewhere can also be tracked. The encrypted identifier allows for linkages across databases and years of data, making it ideal for both cross-sectional and longitudinal research.

The Repository is a collection of administrative databases that holds records for virtually all Manitobans’ contacts with the health care system, as well as more recent data from the education system and family services system. The health data are available from 1970 on, and the education and family services data are available for the past decade. The health data have been extensively validated for research purposes (Roos and McNicol 1999; Roos et al. 1993, Metge et al. 1999, Robinson et al. 1997).

One of the strengths of the original experiments, however, is that they used a case-control methodology. We can find everyone who lived in Dauphin during *MINCOME* and was therefore eligible for income-contingent supplementation. But we have no way of finding the original controls. We decided to use a quasi-experimental design to construct a new cohort of controls, this time correcting the ambiguity in the original design that made it unclear whether individuals or families were the primary unit. We hard-matched on geography, because we decided that living in a small rural prairie town in the mid-70s was fundamentally different than living in an urban centre. Moreover, we decided not to select controls from small towns in the north of the province, because these towns would have much higher aboriginal populations<sup>10</sup> than did Dauphin, would have very different access to health care services and would be largely devoted to resource extraction which would generate very different patterns of health care use. Our controls were selected from small towns very much like Dauphin, and rural municipalities, in south and central Manitoba. We matched each subject to three controls using propensity scores on age, sex, family size, whether or not the individual was part of a single-parent female-led family and whether the individual lived in a small town or rural area. A check of the matches showed 99% of those under 60 in 1974 matched exactly on age and sex, while more than 95% matched overall.<sup>11</sup> Then we tested subjects and controls on all community-level variables reported in the 1971 census and found significant differences between subjects and controls only on the percentage of farmland planted in oilseeds.

---

<sup>10</sup> Aboriginal Canadians have much poorer health outcomes, but the reason we excluded sites with large numbers of First Nations people is that First Nations healthcare is delivered and financed in fundamentally different ways from that of other Canadians. In particular, people who live on reserves at least part of the time will normally not access physician services for primary health care, because they will receive that health care from nursing stations or health centres.

<sup>11</sup> Since women have a greater life expectancy than men, we couldn’t find perfect 3 perfect matches for every man over 65. In that case, we selected the best match using propensity scores.

## VI: Quasi-Experimental Outcomes in Dauphin<sup>12</sup>

All reported outcomes show significant differences between people who were resident in Dauphin during *MINCOME* and controls matched by age, sex, rural or town residence, and whether or not the individual is a member of a female-led lone parent family. We have dubbed all Dauphin residents experimental subjects, whether or not their family received income support through the *MINCOME* programme because they were all eligible for income support if their other income warranted support.

We found:

1. Effects on Fertility:
  - a. Before *MINCOME*, women aged less than 25 years in Dauphin were more likely than the controls to have given birth. By the end of *MINCOME*, they were significantly less likely than the controls to have given birth.
  - b. Total number of births to women less than 25 in Dauphin was significantly higher before *MINCOME* and significantly lower by the end of *MINCOME*.
  - c. These patterns are also observed for women aged under 19, but the relatively small numbers of births make the results not significant.
2. Effects on hospitalization:
  - a. Subjects were more likely to be hospitalized, more likely to spend more days in hospital, and more likely to have longer stays than controls before *MINCOME*.
  - b. By the end of the period, the results were reversed.
3. Effects on hospitalization with mental health diagnoses:
  - a. The same patterns held for mental health hospitalizations.
4. Effects on hospitalization for “accidents and injuries”:
  - a. The same patterns held for accidents and injuries.
5. By 1985, seven years after the money stopped flowing, there were no significant differences between Dauphin and the controls on any measure.

We also modeled these results using a segmented time series model, and found that both subjects and controls had declining fertility and declining hospitalization throughout the 1970s, but the rate of decline was more rapid in Dauphin during *MINCOME*.

We attribute the fertility patterns to decisions by young women to stay in school rather than marrying young. Interviews with expert witnesses did not identify other variables specific to Dauphin that might have accounted for the observed outcomes. The social changes in the 1970s would have impacted different communities at different rates, but because we drew our controls from a number of different but similar communities, we should not find significant differences between subjects and controls.

---

<sup>12</sup> The outcomes summarized in this section are the result of statistical research jointly conducted by Evelyn Forget, Noralou Roos, Wayne Simpson and Derek Hum. Oke Ekuma and Charles Burchill were our programmers. These results will be formally released in a technical report after vetting by Manitoba Health, which is a requirement of our data access.

The fertility pattern is particularly interesting, because there was significant controversy in the US related to a perceived opposite effect (Cain 1977, 1990, Keeley 1980a, 1980d). Some researchers found, and political opponents made much of, increased fertility in the subject families.

We looked at mental health hospitalizations for non-congenital factors because these diagnoses should pick up addiction treatment and other effects of stress related to income insecurity. This was a factor that some US research tackled (Middleton and Allen 1977, Thoits and Hannen 1980)

We looked at “accidents and injuries” because this category is a catch-all that includes not only industrial and farm accidents, which would be related to working conditions and could conceivably be related to *MINCOME*, but also the effects of family violence, violence in the community, alcohol-related incidents, car accidents (often alcohol related) and attempted suicides. The coding on the hospital separation abstract is often less than forthcoming about the nature of the accident or injury, particularly when related to suicide attempts or family violence. Therefore, we did not attempt to isolate these causes.

We did not find significant differences for physician visits between subjects and controls. We attribute this to the fact that medicare was institutionalized in Manitoba in 1970, and many rural communities were still adjusting during the 1970s. Before medicare, most medical care was received from pharmacists or in hospitals.

We looked at birthweights, but found no significant differences between subjects and controls. Some of the US experiments did find differences, but mostly in urban areas (Kehrer and Wolin 1979). Dauphin is an agricultural community, and there is little evidence that nutrition was a problem for any significant portion of the population. Lack of prenatal care ought not to have been a problem, because Dauphin had a large and accessible hospital and medicare was already in place. Other measures of birth outcomes, such as Apgar scores, were not reliably available in the 1970s.

We found no evidence that family formation and dissolution is affected by the GAI, but the quality of our data on this issue is questionable. We only know of a divorce if it is reported by an individual to MB Health, which will issue a new card. If it is not reported by any family member, we have no record of it.

We are still looking at the evidence on migration and at longer term effects for children whose families participated in *MINCOME* when these children were at a vulnerable age.

## VI: Conclusion

This paper has examined the history of the GAI experiments in North America, highlighting the interaction of accident and theory, “science” and policy. One conclusion that emerges very clearly is that the original experimenters had little capacity for or interest in what has recently become known as “knowledge translation”. More

prosaically, the researchers showed little capacity for controlling the evidence that they produced as it became public. Particularly in the US, political actors managed the information flow to the detriment of policy analysis. That seems not to have happened in Canada, where the experiment simply starved under insufficient funding.

The original experiments focused on work disincentives and found very moderate effects, which were nonetheless sufficient to generate a political storm. Evidence on social outcomes from the US experiments is mixed (Baumol 1974, Baumol 1977).

The Dauphin component of the *MINCOME* experiment is uniquely interesting, particularly since it unwittingly created an opportunity to test a controversy that has characterized the social sciences since their birth: what is the appropriate unit of analysis? Building on a foundation of population health which sees communities rather than individuals or even families as units of interest, we have found some evidence that a GAI does have at least some community-level effects. Our analysis is only possible because of an accident of history; medicare emerged and with it the requirement for a large and detailed database just before *MINCOME* was undertaken. Without that database, we would have no capacity to uncover any of the effects of the Dauphin component of the experiment. That delicious irony is just the latest manifestation of the unexpected ways that “science” has brushed up against “politics” and sheer serendipity in the history of antipoverty policy in North America.



## REFERENCES

- Advisory Council on Public Welfare. 1966. *Having the Power, We Have the Duty*. Washington: Department of Health, Education and Welfare.
- Baumol, W., 1974. An overview of the results on consumption, health, and social behavior. *Journal of Human Resources* 9 (2), 253–264.
- Baumol, W., 1977. An overview of the results. In: Watts, H.W., Rees, A. (Eds.), *The New Jersey Income-Maintenance Experiment, vol. III: The Impact on Expenditures, Health, and Social Behavior, and the Quality of the Evidence*. Academic Press, New York, pp. 1–14.
- Bertola G. 2004. A Pure Theory of Job Security and Labour Income Risk. *Review of Economic Studies*. 71(1): 43.
- Bradbury, K.L., 1986. Discussion (of ‘Non-labor supply responses to the income maintenance experiments’). In: Munnell, A.H. (Ed.), *Lessons from the Income Maintenance Experiments*. Federal Reserve Bank of Boston, Boston, pp. 122–125.
- Bradbury, K.L., 1978. Income maintenance alternatives and family composition: an analysis of price effects. *Journal of Human Resources* 13 (3), 305–331.
- Brownell M, Roos N, Fransoo R, Guevremont A, Frohlich N, Kozyrskyj A, Bond R, Bodnarchuk J, Derksen S, MacWilliam L, Dahl M, Dik N, Bogdanovic B, Sirski M, Prior H. 2004a. Manitoba Child Health Atlas 2004: Inequalities in Child Health: Assessing the Roles of Family, Community, Education and Health Care.  
[http://www.umanitoba.ca/centres/mchp/repotts/child\\_inequalities/](http://www.umanitoba.ca/centres/mchp/repotts/child_inequalities/)
- Brownell M et al. 2004b. How do educational outcomes vary with socioeconomic status? Key findings from the Manitoba Child Health Atlas 2004. Winnipeg: Manitoba Centre for Health Policy.
- Brownell L, Lix L, Ekuma O, Derksen S, DeHaney S, Bond R, Fansoo R, MacWilliam L, Bodnarchuk J. 2003. Why is the Health of Some Manitobans Not Improving? The Widening Gap in the Health Status of Manitobans. Winnipeg: Manitoba Centre for Health Policy.
- Brownell M, Friesen D, Mayer T. 2002. Childhood injury rates in Manitoba: Socioeconomic influences. *Canadian Journal of Public Health* 93(supp): S50-S56.
- Burke VJ and Burke V. 1974. *Nixon’s Good Deed: Welfare Reform*. New York: Columbia University Press.
- Cain, G.C., 1977. Fertility behavior. In: Watts, H.W., Rees, A. (Eds.), *The New Jersey Income-Maintenance Experiment, vol. III: The Impact on Expenditures, Health, and*

Social Behavior, and the Quality of the Evidence. Academic Press, New York, pp. 225–250

Cain GG and Wissoker D. 1990. “A Reanalysis of Marital Stability in the Seattle-Denver Income Maintenance Experiment,” *American Journal of Sociology*, March 1990: pp. 1235–1269.

Chen E, Matthews KA, Boyce WT. 2002. Socioeconomic differences in children’s health: how and why do these relationships change with age? *Psychological Bulletin*. 128(2): 295-329.

Chialkowska L. 2000. “Subsidies Paid in Loaves of Bread in England in 1700s” *National Post*. 12 December: A6.

Connor S, Brink S. 1999. Understanding the Early years. Community impacts on child development. Working Paper W-99-6E. Human Resources Development Canada, Ottawa, ON.

Dunliffe J and Erreygers G. (eds) 2004. *The Origins of Universal Grants*. Hampshire and New York: Palgrave Macmillan.

Evans RG, Stoddart GL. 1994. Producing Health, Consuming Health Care. In: Evans RG, ML Barer, TR Marmor (Eds.) *Why are some people healthy and Others Not? Determinants of the Health of Populations*. New York: Aldine de Gruyter: 77-63.

Friedman, Milton. 1962. *Capitalism and Freedom*. Chicago: University of Chicago Press.

Green C. 1967. *Negative Taxes and the Poverty Problem*. Washington: Brookings Institution.

Harris, K. M. 1996. Life after welfare: Women, work and repeat dependency. *American Sociological Review* 61(3): 407-426.

Harris R. 2005. “The Guaranteed Income Movement of the 1960s and 1970s”, in Widerquist et al. (2005).

Haveman R, Wolfe B. 1994. *Succeeding Generations: On the Effects of Investments in Children*. New York: Russell Sage Foundation.

Herrick JM and Stuart PH. 2004. *Encyclopedia of Social Welfare History in North America*. Sage Publications.

Hertzman C. 1999. Population health and human development. In Keating DP and Hertzman C. (Eds.) *Developmental health and the wealth of nations: Social, biological and educational dynamics*. New York: Guilford Press: 21-40.

Hum D and Simpson W. 1991. *Income Maintenance, Work Effort, and the Canadian Mincome Experiment*. A study prepared for the Economic Council of Canada. Ottawa: Canadian Communications Group.

Johnson AW. 1975. "Canada's social security review, 1973-1975: the central issues" *Canadian Public Policy*. 1(4): 456-72.

Keeley, M.C., 1980a. Demand for children. In: Robins, P.K., Spiegelman, R.G., Weiner, S., Bell, J.G. (Eds.), *A Guaranteed Annual Income: Evidence from a Social Experiment*. Academic Press, New York.

Keeley, M.C., 1980b. Migration. In: Robins, P.K., Spiegelman, R.G., Weiner, S., Bell, J.G. (Eds.), *A Guaranteed Annual Income: Evidence from a Social Experiment*. Academic Press, New York.

Keeley, M.C., 1980c. The effects of negative income tax on migration. *Journal of Human Resources* 15, 695–706.

Keeley, M.C., 1980d. The effects of negative income tax programs on fertility. *Journal of Human Resources* 15, 675–694.

Kehrer, B.H., Wolin, C.M., 1979. Impact of income maintenance on low birthweight: evidence from the Gary Experiment. *Journal of Human Resources* 14 (4), 434–462.

Kerachsky, S.H., 1977. Health and medical care utilization: a second approach. In: Watts, H.W., Rees, A. (Eds.), *The New Jersey Income-Maintenance Experiment, vol. III: The Impact on Expenditures, Health, and Social Behavior, and the Quality of the Evidence*. Academic Press, New York, pp. 129–150.

Ladinsky, J., Wells, A., 1977. Social integration, leisure activity, media exposure, and lifestyle enhancement. In: Watts, H.W., Rees, A. (Eds.), *The New Jersey Income-Maintenance Experiment, vol. III: The Impact on Expenditures, Health, and Social Behavior, and the Quality of the Evidence*. Academic Press, New York, pp. 195–224.

Lefcowitz, M.J., Elesh, D., 1977. Health and medical care utilization. In: Watts, H.W., Rees, A. (Eds.), *The New Jersey Income-Maintenance Experiment, vol. III: The Impact on Expenditures, Health, and Social Behavior, and the Quality of the Evidence*. Academic Press, New York, pp. 113–128.

Levine RA, Watts H, Hollister R, Williams W, O'Connor A, Widerquist K. 2005. "A Retrospective on the Negative Income Tax Experiments: Looking Back at the Most Innovative Field Studies in Social Policy", in Widerquist et al. (2005).

Luckhaus L. 2000. Equal Treatment, social protection and income security for women. *International Labour Review* 139(2): 149-78.

Mallar, C.D., 1977. The educational and labor-supply responses of young adults in experimental families. In: Watts, H.W., Rees, A. (Eds.), *The New Jersey Income-Maintenance Experiment*, vol. II: Labor-supply Responses. Academic Press, New York, pp. 163–184.

Martineau H. 1832-34. *Illustrations of Political Economy, Taxation, Poor Law and Paupers*, 13 volumes. London: C. Fox; reprinted with new introduction by C. Franklin. Bristol: Thoemmes, 2001.

Maynard, R., Murnane, R.J., 1979. The effects of a negative income tax on school performance: results of an experiment. *Journal of Human Resources* 14 (4), 463–476.

Maynard, R., 1977. The effects of the Rural Income Maintenance Experiment on the school performance of children. *American Economic Review* 67 (1), 370–375.

McDonald, J.F., Stephenson Jr., S.P., 1979. The effect of income maintenance on the school-enrollement and labor-supply decisions of teenagers. *Journal of Human Resources* 14 (4), 488–495.

Metge C, Black C, Peterson S, Kozyrskyj AL. 1999. The population's use of pharmaceuticals. *Medical Care* 37(supp): S42-S59.

Middleton, R., Allen, V.L., 1977. Social psychological effects. In: Watts, H.W., Rees, A. (Eds.), *The New Jersey Income-Maintenance Experiment*, vol. III: The Impact on Expenditures, Health, and Social Behavior, and the Quality of the Evidence. Academic Press, New York, pp. 151–194.

Moynihan DP. 1973. *The Politics of a Guaranteed Income: The Nixon Administration and the Family Assistance Plan*. New York: Random House.

Orshansky M. 1969. "How Poverty is Measured", *Monthly Labor Review* 92: 37-41.

President's Commission on Income Maintenance Programs. 1969. *Poverty Amid Plenty*. Washington DC: US Government Printing Office.

--- 1970. *Background Papers*. Washington DC: US Government Printing Office.

Sandefur, G. D. & Cook, S. T. (April 1997). *Duration of public assistance receipt: Is welfare a trap?*, (University of Wisconsin-Madison, Discussion paper no. 1129-97). Madison, WI: Institute for Research on Poverty.

Rea Jr., S.A., 1977. Investment in human capital under a negative income tax. *Canadian Journal of Economics* 10(4), 607–620.

Rhyne D. 1979. *Organization Life in River City: a case study of class, ethnicity, geographical mobility and status*. PhD Thesis. University of Toronto: Department of Sociology.

Robinson JR, Young TK, Roos LL, Gelskey DE. 1997. Estimating the burden of disease: comparing administrative data and self-reports. *Medical Care* 35: 932-47.

Roos LL, Mustard CA, Nicol JP, McLerran DF, Malenka DJ, Young TK, Cohen NM. 1993. Registries and administrative data: organization and accuracy. *Medical Care* 31: 201-212.

Roos LL, Nicol JP. 1999. A research registry: uses, development and accuracy. *Journal of Clinical Epidemiology* 52(1): 39-47.

Thoits, P., Hannan, M.T., 1980. Income and psychological distress. In: Robins, P.K., Spiegelman, R.G., Weiner, S., Bell, J.G. (Eds.), *A Guaranteed Annual Income: Evidence from a Social Experiment*. Academic Press, New York.

Tobin J. 1966 "The Case for an Income Guarantee", *The Public Interest* 4: 31-41.

Tobin J, Pechman JA and Mieszkowski PM. 1967. "Is a Negative Income Tax Practical?" *The Yale Law Journal* 77(1): 1-27.

Van Loon R. 1979. "Reforming welfare in Canada" *Public Policy* 27: 469-504.

Weiss, Y., Hall, A., Dong, F., 1980. The effect of price and income on investment in schooling. *Journal of Human Resources* 15, 611-640.

Widerquist K, Lewis MA and Pressman S. (eds) 2005. *The Ethics and Economics of the Basic Income Guarantee*. Hampshire UK and Burlington VT: Ashgate Publishing.

Williams, Juliette Evangeline Rhys, Lady D.B.E. 1953. *Taxation and Incentive*. London: William Hodge and Company.

--- 1943. *Something to Look Forward To: A suggestion for a new social contract*. London: MacDonald.

Wogaman P. 1968. *Guaranteed Annual Income: the moral issues*. New York: Abingdon Press.

Yelowitz, A. S. (September 1996). *Did recent Medicaid reforms cause the caseload explosion in the food stamp program?* (University of Wisconsin-Madison, Discussion paper no. 1109-96). Madison, WI: Institute for Research on Poverty.