

The Town with No Poverty: Health Effects of Guaranteed Annual Income

Summary

Guaranteed Annual Income (GAI) has been advocated and opposed in both the United States and Canada as a means to fight poverty since the 1960s, but how does GAI influence specific health and social outcomes? In examining data from a town involved in a Canadian GAI field experiment, we primarily found that a relatively modest GAI can improve population health at the community level. Considering the increasing burden of health care costs in Canada, it is possible that implementing GAI could amount to considerable savings.

Key Findings

The Canadian GAI field experiment MINCOME took place in various regions in Manitoba from 1974-1978. During MINCOME, every family in Dauphin, a rural Manitoba town, was eligible to participate in the GAI. A family with no income from other sources would receive 60 percent of the Statistics Canada low-income cut-off, which varied by family size. Every dollar received from other sources reduced benefits by 50 cents. Health administrative data from 1974-79, when the MINCOME experiment took place, showed that:

- Hospitalization rates and contact with physicians declined significantly in Dauphin, relative to a comparison group.
- In particular, there was a considerable decrease in hospitalization and physician contact for mental health diagnoses, as well as a decrease in hospitalization for accidents and injuries.

These findings broadly imply that GAI improves population health, thereby decreasing the need for health care. A policy implementing GAI could thus significantly reduce health care costs.

Additionally, contrary to prior findings on GAI, which claimed it increases fertility, improves birth outcomes, and causes divorce, Dauphin data from 1974-79 showed:

- No increase in fertility, but weak evidence of delayed childbirth
- No change in birth outcomes (based on birth weight and rate of perinatal deaths)
- No evidence of increased divorce

Since the claimed outcome of marital instability caused a large withdrawal of support for GAI in the USA in the 1970s, this last finding carries particular importance (Moynihan, 1973).

We also examined school continuation data and found that, during MINCOME, grade 11 Dauphin students were much more likely to continue to grade 12 than their rural or urban counterparts, while before and after MINCOME, they were less likely, or insignificantly more likely, to continue.





Box 1: A Brief History of Guaranteed Annual Income (GAI) Experiments in the USA and Canada

Five GAI field experiments were conducted in North America between 1968 and 1980, with the intention of investigating the impact of a GAI on the labour market. They were based on the idea of a negative income tax or refundable tax credit, for the purposes of eliminating the lack of coordination of social assistance programs and encouraging incentive to work.

In the USA, experiments began in the late 1960s as investigators began to question the effects of GAI on not only labour supply, but also aspects like health and family formation. Experiments took place in North Carolina, Iowa, and Indiana, among others. Their results generally showed that GAI participants moderately reduced family work effort, mostly from secondary and tertiary earners (Levine et al., 2005: 99). Women could finance longer maternity leaves and adolescents could stay in school longer. The school scores of children from families with income supplements increased. Results also showed higher divorce rates for GAI participants. This outcome, along with strong reactions from opponents of a GAI, caused American interest in general GAI to fade by the late 1970s.

In Canada, GAI was first recommended in 1971. MINCOME, Canada's GAI field experiment, began in 1974, and it was the only experiment to engage a town's entire population in the project. However, due to financial difficulties and waning political support, MINCOME was brought to an end in 1979. Thorough data collection and analysis were simply not done. The Macdonald Commission revived the idea of a GAI in 1986, citing the limitations and inefficiencies of the current welfare system, but nothing came of it. Social agencies and certain government departments have only recently showed renewed interest in a GAI.

Data and Method

During MINCOME, every family in Dauphin could participate in the GAI, including those who did not previously qualify for social assistance; data from this site is thus a rich resource for examining the effects of a GAI. We collected and compared health administration data from the Manitoba Population Health Research Data Repository. Data came from Dauphin residents and a comparison group during 1974-79, when MINCOME took place. Members of the comparison group were from a variety of rural Manitoba communities which did not have a GAI during MINCOME. They were closely matched to Dauphin residents, primarily by age and sex.

We foremost examined hospitalization rates as a measure of health, because patients have less control over the decision to be admitted to a hospital than to visit a physician. We then examined physician contact rates and data for other health and social outcomes. As there were uncontrolled

ethnic, religious, and systemic health care differences between the Dauphin population and comparators, we looked at whether the data gaps between subjects and comparators increased or decreased during the experimental period, rather than measuring differences between them.

Results

Health

The following figure shows annual hospitalization rates (hospitalization per 1000 residents) for Dauphin, relative to the comparison group. When MINCOME began in 1974, hospitalization rates were 8.5 percent higher in Dauphin than for controls. By the time MINCOME finished, there was no difference in hospitalization rates between the groups. Between 1973 and 1978, Dauphin's hospitalization rate declined by 19.23 per 1000 residents.

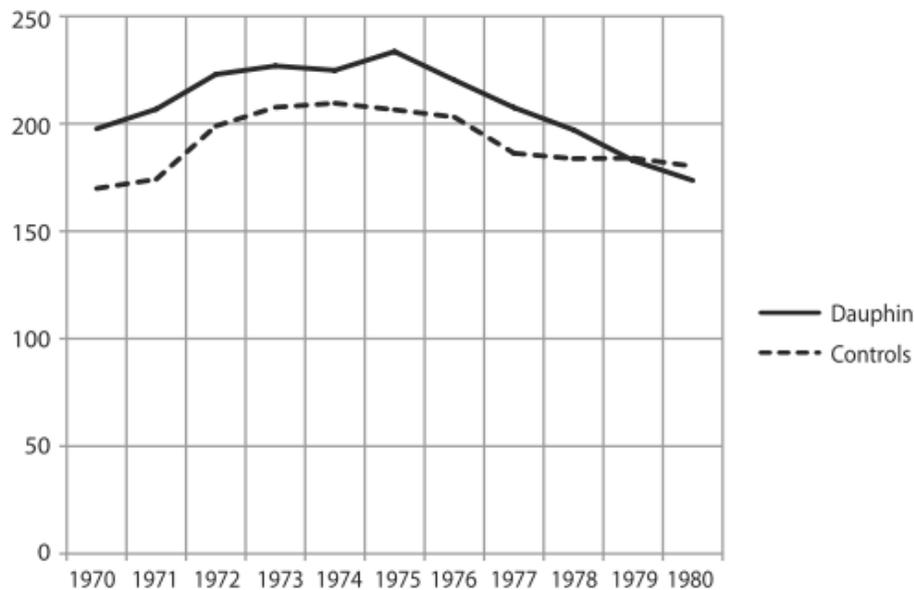


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In particular, the rate of accidents, injuries, and mental health problems as causes for hospitalization decreased, relative to controls. These causes are sensitive to income security. Workplace accidents and injuries occur more often if people continue to work in dangerous jobs when they are ill or fatigued; people

may also experience significantly more stress, anxiety, and depression if they cannot make ends meet. The rate of physician visits of Dauphin residents for mental health reasons also declined relative to the comparison group.

Hospital Separation Rates for Dauphin Residents and Controls



Source: Compilation by author.

Fertility, Birth Outcomes, and Family Dissolution

Prior research found positive effects of GAI on fertility (Keeley, 1980). Our data did not show any evidence of this effect. For several birth cohorts of women who lived during MINCOME, the proportion of those with at least one child by age 25 was almost exactly the same for Dauphin as for the comparison group. Dauphin women born between 1967 and 1974 were the only birth cohort significantly less likely than the comparison group to have children, but this is more likely due to ethnic and religious differences than the GAI.

Since income security allows better access to prenatal care and nutrition, researchers Kehrer and Wolin (1979) attributed improved birth outcomes to GAI. Our health administration data on birth weight and perinatal death showed no significant difference be-

tween Dauphin and the comparison group during MINCOME. We can attribute this to universal health insurance in Manitoba, which gave all Manitoba residents equal access to prenatal care. Moreover, there was little food insecurity in these agricultural regions, so poor nutrition was not a problem for either group.

Previous US research has also shown that GAI gives poor women the opportunity to leave unsatisfactory marriages, thus increasing family dissolution (Hannan, Tuma, and Groeneveld, 1977). This finding had great influence in the US in the 1970s, causing former strong advocates of a GAI to remove their support. Cain and Wissoker (1990) called this finding erroneous due to statistical errors; we also find no evidence of this trend in Dauphin.



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Adolescent Students

Finally, through school continuation data from the Department of Education, we see the effects of a GAI on adolescents. During MINCOME, Dauphin students in grade 11 were more likely to continue to grade 12 than their rural or urban counterparts, a significant change from the years before and after the experiment. The students who were at-risk for dropping out were from low-income families who would have re-

ceived MINCOME stipends and would not have felt pressure to quit school to work. Additionally, students in non-qualifying families were more likely to continue to grade 12 if their friends from qualifying families were staying in school. Thus, even though only about a third of those in Dauphin benefited from income supplements, those who did not qualify still benefited.

Conclusion

We see a larger impact of a GAI on Dauphin than expected, because even though not all families qualified for a supplement, the impacts of the GAI extended beyond qualifying families. This is due to social interaction: changes in behaviour of those who receive the supplement influence those who do not, reinforcing the direct effects of the GAI. A good example of this effect is the influence of grade 11 students on their peers to continue education.

The most suggestive result of this study is the fall of hospitalization rates by 8.5 percent in Dauphin relative to the comparison group, specifically, a reduction in hospitalization rates for accidents, injuries, and mental health problems. Considering that in 2010, Canada spent \$55 billion on hospital costs--8.5 percent of which is about \$4.6 billion-- these potentially immense savings make a GAI worthy of policy consideration.

References

- Cain, G. and D. Wissoker. 1990. "A Reanalysis of Marital Stability in the Seattle-Denver Income Maintenance Experiment." *American Journal of Sociology* (March 1990):1235-69.
- Keeley, M.C. 1980. "The Effects of Negative Income Tax Programs on Fertility." *Journal of Human Resources* 15(4):675-94.
- Kehrer, B.H. and C.M. Wolin. 1979. "Impact of Income Maintenance on Low Birth Weight: Evidence from the Gary Experiment." *Journal of Human Resources* 14(4):434-62.
- Hannan, M.T., N.B. Tuma, and L. P. Groeneveld. 1977. "Income and Marital Events: Evidence from an Income-Maintenance Experiment." *American Journal of Sociology* 82(6):1186-211.
- Levine, R. A., H. Watts, R. Hollister, W. Williams, A. O'Connor, and K. Widerquist. 2005. "A Retrospective on the Negative Income Tax Experiments: Looking Back at the Most Innovative Field Studies in Social Policy." In *The Ethics and Economics of the Basic Income Guarantee*, ed. K. Widerquist, M. Lewis, and S. Pressman. Aldershot: Ashgate.
- Moynihan, D. P. 1973. *The Politics of a Guaranteed Income: The Nixon Administration and the Family Assistance Plan*. New York: Random House.

About this Policy Brief

This Policy Brief is based on Evelyn L. Forget, "The Town with No Poverty: The Health Effects of a Canadian Guaranteed Annual Income Field Experiment", *Canadian Public Policy*, Sept. 2011, Vol. 37, No. 3, pp. 283-305. Carmina Ravanera wrote the Policy Brief.

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