

Patterns and Determinants of Wealth among Probated Decedents in Wentworth County, Ontario 1872–1902

LIVIO DI MATTEO
PETER GEORGE*

A micro-data set, comprised of 405 decedents in Wentworth County, Ontario, between 1872 and 1902, was constructed from probate, census, and tax assessment records. The data are analysed for evidence pertaining to patterns of wealth-holding and to various issues in the social and economic history of late Victorian Ontario. In general, wealth increased among decedents who were female, native-born, rural dwellers, Catholic, farmers, and of high occupational status. The average wealth of decedents who were urban dwellers, of low occupational status, and Protestant decreased. The analysis indicates the presence of two motives for saving: to provide bequests for children and to save for an independent old age, without the need to rely on children for support. This suggests that a transition was taking place in Wentworth County from an old-age security system based on family obligations to one based on market relationships.

Un ensemble de microdonnées sur 405 personnes décédées entre 1872 et 1902 dans le comté de Wentworth, en Ontario, a été construit à partir de documents de succession, de recensement et d'évaluation foncière. Les données sont analysées pour trouver des preuves sur les tendances de la possession de la richesse et diverses questions touchant l'histoire sociale et économique de l'Ontario de la fin de l'époque victorienne. En général, la richesse augmentait chez les défunts de sexe féminin, de souche, ruraux, catholiques, fermiers et de statut professionnel élevé. La richesse moyenne diminuait chez les défunts urbains, de faible statut professionnel et protestants. Selon l'analyse, il y avait deux motifs d'épargne : donner un legs aux enfants et se préparer une vieillesse autonome, indépendante du soutien des enfants. Cela tend à montrer que l'on passait, dans le comté de Wentworth, d'un

* Livio Di Matteo is an associate professor of economics at Lakehead University. Peter George is a professor of economics and associate member in the Department of History at McMaster University. He is currently president of McMaster University. The authors gratefully acknowledge the financial assistance of the Social Sciences and Humanities Research Council of Canada in this project and the helpful comments of two anonymous referees. Thanks are also extended to Carol White, National Archives, and Dave Cook, Mills Library, McMaster University, for their assistance in gaining access to materials for the 1902 cross-section.

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ystème de sécurité de la vieillesse basé sur les obligations familiales à un système basé sur les relations de marché.

THE STUDY OF ACCUMULATION and distribution of wealth using historical micro-data drawn from probate, census, and assessment roll sources yields fascinating insights into the past. Yet there has been relatively little work done on Canadian wealth-holding using such sources, particularly with respect to Ontario. In the United States, on the other hand, a wide-ranging body of work has been completed using micro-data on the size, composition, and distribution of wealth.¹ Much of this American work has addressed fundamental questions of the extent of economic and social mobility in nineteenth-century America.

Several Canadian studies have used historical census micro-data. Among the studies focused on Ontario have been David Gagan's comprehensive social and economic study of Peel County, Marvin McInnis's work with the Canada West Farm Sample of 1861, Frank Denton and Peter George's study of the influences on family size in Wentworth County in 1871, and William Marr's work on fertility in Canada West using the 1851 Census. A few studies, notably Bruce Elliott's important work on Irish migrants, have examined "life-history" using a genealogical orientation. None of these studies has dealt specifically with wealth-holding, although both Gagan and McInnis have examined landholding and Gagan analysed the inheritance system as part of his work on Peel County.²

1 Lee Soltow has used census data to prepare studies on wealth-holding in Wisconsin and the United States as a whole, focusing on the pattern of wealth distribution and its stability over time. Alice Hanson Jones used probate records to construct wealth estimates for the Thirteen Colonies on the eve of the American Revolution. William Newell has used probate data to examine wealth and inheritance patterns in Butler County, Ohio, from 1803 to 1865. See Lee Soltow, *Patterns of Wealthholding in Wisconsin Since 1850* (Madison: University of Wisconsin Press, 1971), and *Men and Wealth in the United States 1850–1870* (New Haven: Yale University Press, 1975); Alice H. Jones, *Wealth of a Nation to Be: The American Colonies on the Eve of the Revolution* (New York: Columbia University Press, 1980); William H. Newell, "Inheritance on the Maturing Frontier: Butler County, Ohio, 1803–1865" in S. L. Engerman and R. E. Gallman, eds., *Long Term Factors in American Economic Growth*, NBER Studies in Income and Wealth, vol. 51 (Chicago: University of Chicago Press, 1986), pp. 261–303, and "The Wealth of Testators and its Distribution: Butler County Ohio, 1803–65" in James D. Smith, ed., *Modelling the Distribution and Intergenerational Transmission of Wealth*, NBER Studies in Income and Wealth, vol. 46 (Chicago: University of Chicago Press, 1980), pp. 95–138.

2 David Gagan, *Hopeful Travellers: Families, Land and Social Change in Mid-Victorian Peel County, Canada West* (Toronto: University of Toronto Press, 1981); R. M. McInnis, "Childbearing and Land Availability: Some Evidence from Individual Household Data" in R. D. Lee *et al.*, eds., *Population Patterns in the Past* (New York: Academic Press, 1977), pp. 201–227; Frank T. Denton and Peter George, "The Influence of Socio-Economic Variables on Family Size in Wentworth County, Ontario, 1871: Statistical Analysis of Historical Micro-Data", *Canadian Review of Sociology and Anthropology*, vol. 10 (1973), pp. 334–345; William L. Marr, "Fertility Rates Among Married Couples in Rural Canada West, 1851: Some First Estimates" (Research Report No. 8695, School of Business and Economics, Wilfrid Laurier University, 1986), and "The Household and Agricultural Structure of Rural Canada West in 1851: Old Areas and Frontier Settlement" (Research Report No. 87108, School of Business and Economics, Wilfrid Laurier University, 1987); David Gagan, "The Indivisibility of

Existing studies of wealth and inheritance in Ontario have tended to make use of land registry and tax assessment records rather than probate records. Michael Katz used census and assessment rolls, city directories, and other assorted records to describe the patterns of life, including wealth, in mid-nineteenth-century Hamilton. A. Gordon Darroch employed municipal assessment rolls to gauge the extent of wealth inequality in nineteenth-century Toronto. Beyond Ontario, however, probate sources have been used more often. Gilles Paquet and Jean-Pierre Wallot have used *les inventaires après décès* to study personal wealth in late eighteenth- and early nineteenth-century Quebec. There has also been recent work on wealth-holding and wealth inequality in Nova Scotia by F. K. Siddiq and Lars Osberg, who utilized probate records.³

These Canadian studies are marked by no single unifying theme. Much of the work on French Canada has assailed the traditional view of the *habitant* as conservative and custom-bound, while that on English Canada has examined the economic and social structure of Victorian society and the response of individuals to economic change. Our micro-data set of individual wealth-holders for Wentworth County informs discussion about several issues in the social and economic history of late Victorian Ontario. Among these has been the standard of life achieved by working people between 1870 and 1900. The standard of living associated with industrialization and urbanization in Ontario's history is still characterized by a gap in knowledge. A study by David and Rosemary Gagan which reviewed various data on employment, real wealth, wages, savings, and consumption suggests that the 1880s were a decade of rising expectations and improvements in the material standard of life, but that these gains disappeared in the 1890s.⁴

Another recent theme has been the role of women in economic develop-

Land: A Microanalysis of the System of Inheritance in Nineteenth Century Ontario", *Journal of Economic History*, vol. 36 (1976), pp. 126–146; Bruce Elliott, *Irish Migrants in the Canadas: A New Approach* (Kingston: McGill-Queen's University Press, 1988).

- 3 Michael Katz, *The People of Hamilton, Canada West: Family and Class in a mid 19th Century City* (Cambridge: Harvard University Press, 1975); A. Gordon Darroch, "Early Industrialization and Inequality in Toronto, 1861–1899", *Labour/ Le Travailleur*, vol. 11 (1983), pp. 31–61, and "Occupational Structure, Assessed Wealth and Homeowning during Toronto's Early Industrialization, 1861–1899", *Histoire sociale/ Social History*, vol. 16, no. 32 (1983), pp. 381–410; Gilles Paquet and Jean-Pierre Wallot, "Les inventaires après décès à Montréal au tournant du XIX^e siècle : préliminaires à une analyse", *Revue d'histoire de l'Amérique française*, vol. 30 (1976), pp. 163–221, and "Stratégie foncière de l'habitant : Québec (1790–1835)", *Revue d'histoire de l'Amérique française*, vol. 39 (1985), pp. 551–581; Lars Osberg and Fazley Siddiq, "The Inequality of Wealth in Britain's North American Colonies: The Importance of the Relatively Poor", *Review of Income and Wealth*, vol. 34 (1988), pp. 143–163; Fazley Siddiq, "The Size Distribution of Probate Wealth Holdings in Nova Scotia in the Late 19th Century", *Acadiensis*, vol. 18 (1988), pp. 136–147.
- 4 David Gagan and Rosemary Gagan, "Working-Class Standards of Living in Late-Victorian Urban Ontario: A Review of the Miscellaneous Evidence on the Quality of Material Life", *Journal of the Canadian Historical Association*, vol. 1 (1990), pp. 170–193.

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ment. Marjorie Cohen has suggested that women's labour was directly related to the accumulation of capital in nineteenth-century Ontario. Women's unpaid labour on the land "freed" men to participate in market wage-earning opportunities.⁵ Bettina Bradbury has shown how, in urban areas, women supplemented family incomes by entering the labour force.⁶ Since indigenous accumulation of capital is based on individual saving behaviour, and wealth is accumulated saving, one could argue that women's unpaid labour was also crucial to the accumulation of wealth during the nineteenth century.

Wealth has also been of interest to economic historians who have investigated the motivation for saving and accumulating wealth.⁷ The bequest motive is the accumulation of assets during working years to provide offspring with an inheritance. Life-cycle saving, on the other hand, is defined as the accumulation of assets during working years to finance consumption during retirement. Both theoretical economists and economic historians have attempted to explain why utility-maximizing individuals would choose to die with more than zero terminal wealth. The rationale for a bequest motive seems to hinge on the need for parents to provide an incentive for their children to care for them in old age, as well as parental concern for the welfare of offspring.⁸

Economic historians Roger Ransom and Richard Sutch have argued that, during the nineteenth century in the United States, there was a decline in the bequest motive for saving and a movement towards life-cycle saving, as the implicit old-age security agreements between parents and children — the promise of a bequest in return for support in old age — eroded.⁹ Financial assets were substituted for children and land in planning for one's old age

5 Marjorie Cohen, *Women's Work, Markets and Economic Development in Nineteenth-Century Ontario* (Toronto: University of Toronto Press, 1988), pp. 36–38.

6 Bettina Bradbury, "The Family Economy and Work in an Industrializing City: Montreal in the 1870s", *Historical Papers, Canadian Historical Association* (1979), p. 85.

7 For an excellent survey of the issues, see Franco Modigliani, "The Role of Intergenerational Transfers and Life Cycle Saving in the Accumulation of Wealth", *Journal of Economic Perspectives*, vol. 2 (1988), pp. 15–40; D. Kessler and A. Masson, "Bequests and Wealth Accumulation: Are Some Pieces of the Puzzle Missing?", *Journal of Economic Perspectives*, vol. 3 (1989), pp. 141–152; L. J. Kotlikoff, "Intergenerational Transfers and Savings", *Journal of Economic Perspectives*, vol. 2 (1988), pp. 41–58; M. King, "The Economics of Saving: A Survey of Recent Contributions", in K. J. Arrow and S. Honkapohja, eds., *Frontiers in Economics* (Oxford: Basil Blackwell, 1985).

8 For example, economists Bernheim, Schleifer, and Summers propose a model of strategic bequests in which a testator conditions bequests on the behaviour of potential beneficiaries. They estimate an econometric model in which the supply of attention children give to parents is modelled as a function of the potential bequest per child and find a positive correlation between attention and bequeathable wealth in families with at least two children. At least two children are required for the threat to disinherit to be credible. See B. D. Bernheim, A. Schleifer, and L. H. Summers, "The Strategic Bequest Motive", *Journal of Political Economy*, vol. 93 (1985), pp. 1045–1076.

9 Roger Ransom and Richard Sutch, "The Life-Cycle Transition: A Preliminary Report on Wealth-holding in America" (paper prepared for the Tenth University of California Conference on Economic History, May 2–4, 1986), p. 18.

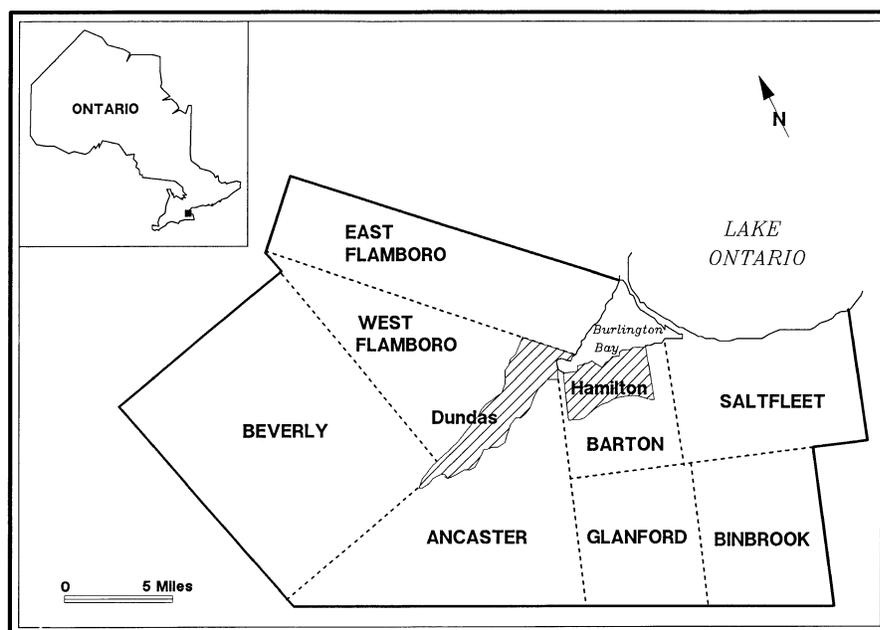


Figure 1 Wentworth County, Ontario, 1875.

as the rise of off-farm market opportunities increased the incidence of what they term “child default” on the implicit family obligations. The motive for holding wealth, then, shifted from the parents’ desire to preserve the value of the family farm as an inheritance for offspring in return for support in old age to the desire to amass a stock of financial assets to finance one’s old-age consumption independent of offspring. Life-cycle saving was a method in which parents relied on asset markets for their old-age security rather than the bequest motive’s network of family obligations. The result was that nineteenth-century America witnessed a decline in fertility and a rise in aggregate saving which ultimately financed its industrialization. Similarly, careful study of individual saving and wealth portfolios can amplify our understanding of Ontario’s social and economic development.

The Data

This study reports data from Wentworth County, Ontario, which in the latter half of the nineteenth century comprised the City of Hamilton, the Town of Dundas, and a number of largely rural townships clustered around the western end of Lake Ontario (see Figure 1). Wentworth County was chosen for this study because it was well settled and a solid infrastructure of record keeping was in place. By the latter half of the nineteenth century, the county was undergoing urbanization and industrialization as Hamilton made the transition from a commercial city serving a local agricultural hinterland to

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an industrial centre. In 1871 the population of the county was 57,599, of whom 29,851 (51.8 per cent) resided in the urban centres of Hamilton and Dundas. By 1901 the population was 79,457, of whom 55,807 (70.2 per cent) were urban.¹⁰ Wentworth County was more urbanized than Ontario as a whole, which saw the urban share of its population rise from 22 to 43 per cent during the same period.

The set of micro-data consists of 405 decedents whose estates were probated in the years 1872, 1882, 1892, and 1902. The data set was constructed from three primary sources: the probate records of the Wentworth County Surrogate Court, the Census of Canada, and the various tax assessment rolls for the municipalities and townships that constituted Wentworth County.¹¹ The probate records, linked through the census and assessment rolls, form the key source for this data set.¹²

The probate records are the records of courts responsible for handling the estates of deceased persons. Under the “Surrogate Courts Act, 1858” (*Statutes of Canada*, 22 Vict., Cap. 93, 1858), a surrogate court was established in each county in Ontario, replacing the centralized Court of Probate established in 1793. The probate records in Ontario are a rich and virtually untapped source of wealth data which provide information on the size and composition of individual estates, the number of offspring, place of residence, date of death, and division of the estate amongst the heirs.

There are several potential drawbacks to the use of probate records.¹³

10 *Census of Canada*, 1871, 1881, 1891, 1901.

11 The primary sources for the data set were: Public Archives of Ontario, Wentworth County Surrogate Court Wills, 1872 (nos. 758–830), 1882 (nos. 1710–1824), 1892 (nos. 3222–3453), 1902 (nos. 5345a–5360a, 5324–5549); Public Archives of Canada, *Census of Canada*, 1871, 1881, 1891, 1901, Manuscripts for Wentworth County; Hamilton Public Library, Special Collections and Archives of Ontario, Assessment Rolls, Wentworth County (Hamilton, Dundas, East Flamborough, West Flamborough, Beverly, Ancaster, Binbrook, Glanford, Saltfleet), 1868–1891.

12 All the individuals whose estates bore an application for probate date falling in the years 1872, 1882, 1892, and 1902 were selected as *candidates* for the final data set. These individuals were then traced in the Census returns to obtain additional information on characteristics such as age and religion. Decedents in the years 1872, 1882, and 1892 were also traced through tax assessment rolls so that real estate values could be assigned. This procedure was performed out of necessity for 1872 and 1882, for the probate records in these years yielded only an inventory of personal estate. The initial set of candidates totalled 633. The process of Census and assessment roll linkage reduced the number of probated decedents to 405. For an explanation of the methodology employed in constructing the complete data set, see Livio Di Matteo and Peter George, “Canadian Wealth Inequality in the Late Nineteenth Century: A Study of Wentworth County, Ontario, 1872–1902” (McMaster University, QSEP Research Report No. 280, June 1991), pp. 4–5, and *Canadian Historical Review*, vol. 73, no. 4 (1992), pp. 453–483.

13 Useful discussions of Ontario probate records as historical sources of data are contained in Bruce S. Elliott, “Sources of Bias in Nineteenth-Century Ontario Wills”, *Histoire sociale/ Social History*, vol. 18, no. 35 (1985), pp. 125–132; Brian S. Osborne, “Wills and Inventories: Records of Life and Death in a Developing Society”, *Families*, vol. 19 (1980), pp. 235–247; Fazley Siddiq and Julian Gwyn, “The Importance of Probate Inventories in Estimating the Distribution of Wealth”, *Nova Scotia Historical Review*, vol. 11 (1991), pp. 103–117. It should be mentioned that, when it comes to

First, it can be argued that individuals whose estates are probated are, on average, wealthier and of higher socio-economic status, and therefore not representative of the general population. This can be a problem if the data set is to be used to draw inferences about the wealth of the general population, but not if the purpose is to study the wealth of the decedents themselves.¹⁴ In this data set, despite the emphasis on the wealthy, a broad range of individuals from labourers to merchants is captured, and their wealth is inventoried in a detail not found in any other nineteenth-century source.

Secondly, the presence of estate taxes and death duties may provide an incentive for an executor or administrator to underestimate the value of wealth being inventoried. The wealth data obtained from nineteenth-century Ontario probate records do not suffer from such a bias because there were no succession duties in Ontario until July 1, 1892, when the “Succession Duty Act” (*Statutes of Ontario*, 55 Vict., Cap. 6, 1892) was passed, and, even then, the Act allowed for numerous exemptions.¹⁵ In general, direct heirs with a bequest of less than \$100,000 were not required to pay succession duties provided they were related to the deceased. In Ontario, at least, the presence of estate taxes appears to have provided no reason to underestimate the value of the estate for almost all decedents.

Thirdly, the presence of *intervivos* transfers means that an unknown portion of wealth is unaccounted for by the probate records. This data set likely takes into consideration those individuals who disposed of property *intervivos* during the year before death. For example, in several instances the probate records stated that the decedent had no real estate while the assessment rolls for the previous year showed ownership of real estate. Use of the assessment rolls enabled one to capture some of the *intervivos* transfers of real estate. Moreover, the presence of *intervivos* transfers is only a serious

studying nineteenth-century wealth, probate records also have an advantage over assessment rolls as the latter were used for taxation and therefore provided an incentive to understate one's wealth. A comparison of real property values using the Wentworth County 1892 probate and assessment roll data found that the assessment rolls tended to undervalue real property by about 23% in urban areas and 42% in rural areas.

14 In cases where inferences are drawn about the wealth-holding of the general population, the data can be adjusted using the estate multiplier technique. For a recent discussion, see Siddiq and Gwyn, “The Importance of Probate Inventories”, pp. 103–117; Phyllis Wagg, “The Bias of Probate: Using Deeds to Transfer Estates in Nineteenth-Century Nova Scotia”, *Nova Scotia Historical Review*, vol. 10 (1990), pp.74–87. The estate multiplier technique is applied to the Wentworth County data in Di Matteo and George, “Canadian Wealth Inequality in the Late Nineteenth Century”.

15 The “Succession Duty Act” did not apply: “(1) To any estate the value of which, after payment of all debts and expenses of administration, does not exceed \$10,000; nor (2) To property given devised or bequeathed for religious, charitable or educational purposes; nor (3) To property passing under a will, intestacy or otherwise, to or for the use of the father, mother, husband, wife, child, grandchild, daughter-in-law, or son-in-law of the deceased, where the aggregate value of the property of the deceased does not exceed \$100,000 in value.”

problem if estate taxes exist, and in nineteenth-century Ontario estate taxes were not an obstacle to the intergenerational transmission of wealth.

The information contained in this data set is unique in the manner in which it links economic and personal characteristics of individuals.¹⁶ Records from earlier than 1870 are fragmentary, and beyond 1902 the linking of probate records to the Census is prohibited by confidentiality restrictions. Consisting of only 405 decedents, this micro-data set is relatively small but is of high quality. Three independent sources of data provide cross checks. Moreover, the probate records, as legal records, are free of many of the problems faced by scholars relying on modern survey data. Finally, and most importantly, the data set lends itself to descriptive uses as well as testing of hypotheses to reveal interesting patterns and determinants of wealth-holding in Wentworth County.

The Decedents and their Features

Some Notes on Individual Decedents

The records of the decedents in the sample represent a fascinating body of personal and economic data, which range from age and occupation to occasional details about personal and family life. One can only imagine what must have come to pass in the life of one Julia Donovan (WC #3331, 1892), who in her will left the bulk of her estate to her daughter and then proceeded to appoint James Fitzgerald, “of Bay street north, in the said city of Hamilton, labourer and milkman” as the executor of her estate, rather than her husband Jeremiah. (The term in brackets is a reference to the location of the decedent’s record in the probate records. It is to be read as Wentworth County Will number 3331, year of probate 1892.)

Some of the notable citizens of the Hamilton-Wentworth area have found their way into this data set. Decedents whose estates were probated in 1872 include the Reverend Ralph Leeming (WC #782, 1872) whose life, according to the *Dictionary of Hamilton Biography*, was as “uneventful as it was long”.¹⁷ Despite this assessment, Reverend Leeming oversaw the building of St. John’s Church and parsonage in the township of Ancaster in the mid-1820s.

The 1882 sample includes Adam Hope (WC #1788, 1882), merchant and

16 The categories in the inventory attached to the probate documents for 1892 and 1902 were: (1) Household Goods and Furniture, (2) Farming Implements, (3) Stock in Trade, (4) Horses, (5) Horned Cattle, (6) Sheep and Swine, (7) Book Debts and Promissory Notes, (8) Money Secured by Mortgage, (9) Money Secured by Life Insurance, (10) Bank Shares and Other Stocks, (11) Securities for Money, (12) Cash on Hand, (13) Cash in Bank, (14) Farm Produce of all Kinds, (15) Real Estate, (16) Other Property. Items (1) to (14) and (16) constituted personal estate and effects. For 1882 there is a detailed inventory of personal property but no estimate of real estate. For 1872 there is only an estimate of total personal estate but no detailed inventory of its components.

17 T. M. Bailey, ed. in chief, *Dictionary of Hamilton Biography*, vol. 1 (Hamilton: W. L. Griffin, 1981), p. 124.

senator. Hope was a wholesale iron and hardware merchant, president of the Savings Bank of the Hamilton Provident and Loan Society, Director of the Bank of Commerce, and a prominent Liberal for which he was rewarded with a Senate appointment in 1877.¹⁸ Also included in 1882 is John Blachford (WC #1739, 1882), who in 1843 had moved to Hamilton and opened a cabinet-making and upholstery business. By 1845 his skills in woodworking took him into undertaking; over the course of his career, Blachford and his firm arranged 7,236 funerals. According to the *Dictionary of Hamilton Biography*, his “establishment on MacNab Street supplied all types of coffins, horse-drawn hearses, shrouds, and other funeral accoutrements to meet the needs and varied means of the community”.¹⁹

The 1892 and 1902 groups contain some of the wealthiest men in the sample. Joseph Lister (WC #3431, 1892) was the wealthiest of the 1892 decedents with an estate of \$147,088, as determined from probate and tax assessment rolls. Lister was a prominent merchant who owned much of the prime commercial real estate in downtown Hamilton bounded by Rebecca, Hughson, King William, and James Streets. On this land was erected the Lister Block which, rebuilt by his son after a fire in 1923, still stands. The year 1892 also saw the departure from this mortal life of Michael Brennan (WC #3400, 1892), a lumber merchant with an estate of \$113,890, and of Thomas Henry Stinson (WC #3384, 1892), a barrister, who died at age 32 with an estate of \$143,185. Stinson’s death in “manhood’s golden prime” undoubtedly came as a shock to many people in the city.²⁰

The year 1902 saw the passing of Samson Howell Ghent (WC #5516, 1902) and Henry Kuntz (WC #5429, 1902). Ghent was the Clerk of the Surrogate Court in Wentworth County and his signature is affixed to most of the probate documents examined in this data set. Henry Kuntz, a brewer, died with an estate of \$180,886, making him the wealthiest individual in the sample. His brewery in downtown Hamilton was bounded by King, Caroline, Bay, and Market Streets.

Much is revealed about these individuals by their wills. Wills often reflect attention or inattention to detail, interests, and generosity. For example, Edward Donnelly (WC #794, 1872) specified in his bequest to his son: “to Edward Stevens my son I bequeath six forks, two tablespoons and six teaspoons and as a trifling token of my regard I give him my seals and his mother’s packet knife.” Peter Grant (WC #821, 1872) gave instructions for the running of his brewery business; as his wife was “not fitted for the brewery business and my executors are”, he gave them the option of purchasing the share of the business bequeathed to his wife. In another case,

18 *Ibid.*, p. 105.

19 *Ibid.*, p. 20.

20 “In Manhood’s Golden Prime: Death of Thomas H. Stinson This Morning”, *Hamilton Spectator*, June 29, 1892.

Edward Jackson (WC #803, 1872) left the sum of \$10,000 to Victoria College for the establishment of a theological chair.

The role of religion in daily life is much in evidence. The wills routinely invoke the name of the Almighty in their preambles. As in the case of James Griffith (WC #1735, 1882), even the attempt to enforce religious convictions from beyond the grave was not uncommon. In his will, Griffith instructed his son as follows: “If my daughter Ellen should marry before her legacy is fully paid her ... a man of previously notorious evil habits as intemperance or idleness or a man who is of the Roman Catholic faith — I expressly relieve my son Thomas of all further obligations.”

Economic control was also an important aspect of many testamentary documents. Phillip Gage (WC #3369, 1892), a farmer, bequeathed all of his real and personal estate to his widow Mary Ann for the maintenance of herself and her children. However, he explicitly stated, “no child shall be entitled to such maintenance who refuses to reside with his or her mother on the Homestead farm and render such service as he or she may be capable of in the work of the house and cultivation of the land.” Moreover, he stipulated that payment of an inheritance after the death of his widow be conditional on the children having complied with the widow’s interests.

These are but a few examples of the rich anecdotal content of the probate records, which we hope will communicate their promise for greater use in non-quantitative historical research. Given our particular interest in the uses of the aggregate data set, however, we now turn to its potential applications in quantitative analysis.²¹

The Aggregate Evidence

Some of the principal characteristics of the decedents are summarized in Table 1. The majority were male, but this proportion declined from 88 per cent in 1872 to 72 per cent by 1902. The rise in the proportion of female decedents whose estates were probated is evidence that the institutional reforms in property laws made in Ontario during the late nineteenth century were having an impact on both the extent of female ownership of property and the level of wealth held by women. The “Married Woman’s Real Estate Act, 1873” (*Statutes of Ontario*, 36 Vict., Cap. 18) allowed married women to dispose of real estate as if *feme sole* (that is, as if unmarried, without the intervention of a trustee), and the “Married Woman’s Property Act, 1884” (*Revised Statutes of Ontario*, 1887, Cap. 132) broadened a married woman’s rights to dispose of any real or personal property. Whereas only 4 per cent of the decedents in the 1872 data were married women, this figure had risen to 8.2 per cent by 1902.

21 For a fuller discussion of the aggregate data base and patterns of wealth distribution and inequality in Wentworth County, see Di Matteo and George, “Canadian Wealth Inequality in the Late Nineteenth Century”.

Table 1 Characteristics of Probated Decedents

Categories	1872 (%)	1882 (%)	1892 (%)	1902 (%)
High occupational status	68.0	68.4	45.5	52.5
Foreign-born	78.0	75.9	60.4	44.3
Farmer	40.0	36.7	24.0	23.0
Protestant	94.0	93.7	89.0	85.2
Male	88.0	78.5	72.7	72.1
Testate	60.0	63.3	76.0	69.7
Urban	44.0	50.6	60.4	63.1

Note: The total number of decedents in this data set is 405.

Sources: See text, footnote 11.

Several other trends mark the data set. The urban share grew from 44 per cent in 1872 to 63 per cent in 1902, a reflection of the urbanization and industrialization of the county. The percentage who died testate grew from 60 per cent to 70 per cent between 1872 and 1902. Women were as likely as men to leave a will. On average, decedents who left wills were wealthier than those who died intestate and were more likely to own real estate. Also, the percentage of Protestant decedents in the sample declined from 94 per cent in 1872 to 85 per cent in 1902, marking the rise of significant wealth-holding by Catholics. In addition, the occupational distribution saw a decline in the share of farmers, from 40 per cent in 1872 to 23 per cent in 1902, and in the share of those in occupations of high status, from 68 per cent to 53 per cent in the same years.²² Note also that the proportion of foreign-born probated decedents declined over time, reflecting the rise of native-born wealth-holders.

Table 2 presents some selected aggregate statistics on the set of probated decedents. The period from 1872 to 1902 was marked by an increase in average wealth, although the rise was not consistent over time. The years between 1892 and 1902 were actually a period of declining wealth. A decline in wealth after 1891 was also noted for Toronto by A. Gordon Darroch; he attributed the increase in wealth during the 1880s to an inflation in real estate values that was ended by a recession in 1891.²³ Darroch's hypothesis is supported for Wentworth County by the large share of wealth held in real estate in 1892, followed by the marked decline to 1902, as well as the decline in the average value per acre of farmland between 1892 and 1902.

22 High occupational status is defined as categories I and II of the Katz Occupational Categorization developed by Michael Katz. Katz ranks occupations from "high" to "low" according to socio-economic standing. Examples of occupations in Category I are Alderman, Gentleman, Physician, and Merchant and in Category II Accountant, Cab Owner, Farmer, and Teacher. Categories III–VI are defined as being of "low" occupational status. Katz himself cautions that his categorization might not be suitable for a city in the latter stages of industrialization. See Katz, *The People of Hamilton*, pp. 343–348.

23 Darroch, "Early Industrialization and Inequality", pp. 44–45.

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Table 2 Some Selected Aggregate Statistics from the Set of Wentworth County Probated Decedents, 1872–1902

	1872	1882	1892	1902
Number of individuals	50	79	154	122
Total wealth of sample ¹ (1900\$)	\$374,624	\$479,042	\$1,496,229	\$1,046,187
Average total wealth ²	\$7,492 (\$13,950)	\$6,604 (\$9,554)	\$9,716 (\$21,079)	\$8,575 (\$22,774)
Median wealth (1900\$)	\$ 2,467	\$3,025	\$3,846	\$3,146
Average real estate (1900\$)	\$3,032 (\$6,003)	\$2,606 (\$4,037)	\$5,831 (\$15,214)	\$3,241 (\$7,045)
Average financial assets ³ (1900\$)	–	\$2,302 (\$4,443)	\$2,742 (\$8,787)	\$4,583 (\$15,575)
Average other personal property ⁴ (1900\$)	–	\$1,156 (\$3,798)	\$1,143 (\$5,637)	\$752 (\$2,791)
Ratio of total real estate wealth to total real wealth	0.40	0.43	0.60	0.38
Ratio of total financial wealth to total wealth	–	0.38	0.28	0.53
Average age to death	55.24 (16.44)	58.38 (17.72)	59.86 (16.73)	62.71 (15.37)
Average number of children per wealth-holder	2.70 (2.78)	2.97 (2.41)	3.43 (2.60)	2.74 (2.46)
Average value of farm holdings per acre ⁵ (1900\$)	\$25.39	\$49.95	\$62.66	\$51.12

1) All figures are in 1900 dollars. Real estate figures were deflated using 1871 = 107, 1881 = 108. This was because the real estate estimates for 1871 and 1881 were obtained from assessment rolls for those years. All other property was deflated using 1872 = 117, 1882 = 113, 1892 = 104, and 1902 = 104. These deflators were used for all estimates in this study. Source of these deflators is: M. C. Urquhart, “New Estimates of Gross National Product 1870–1926: Some Implications for Canadian Development” in S. L. Engerman and R. E. Gallman, eds., *Long Term Factors in American Growth*, NBER Studies in Income and Wealth, vol. 1 (Chicago: University of Chicago Press, 1986), pp. 9–94.

2) Standard Deviations for means are in brackets below each mean. Since wealth distributions often contain outliers, average wealth was also calculated with the top three probated decedents removed. The results (in 1900\$) are: for 1872, \$4,272; for 1882, \$4,487; for 1892, \$7,335; and for 1902, \$5,335. These results also show the period 1872 to 1902 to be one of rising wealth.

3) Financial assets were defined as items (7) to (13) on the inventory and valuation of property. They are: (7) Book debts and Promissory Notes, (8) Moneys Secured by Mortgage, (9) Moneys Secured by Life Insurance, (10) Bank Shares and other Stocks, (11) Securities for Money, (12) Cash on Hand, and (13) Cash in Bank. For 1872 there was no detailed inventory, and hence no estimate of financial assets is available.

4) The personal property estimates for 1872 are an amalgam of financial assets and other personal estate, as they were recorded together in a figure termed “personal estate and effects”. For the years 1882 and 1892, other personal property consists of items (1) to (6), (14), and

- (16). They are: (1) Household goods and furniture, (2) Farming Implements, (3) Stock in trade, (4) Horses, (5) Horned Cattle, (6) Sheep and Swine, (14) Farm Produce of all Kinds, and (16) Other Property. This last category was a catch-all.
- 5) The 1872 and 1882 values are based on the assessment rolls, adjusted upwards for under-reporting. The 1892 and 1902 values are based on the probate records. A comparison of real property values using the 1892 probate and assessment roll records found that the assessment rolls tended to undervalue real property by 23% in urban areas and by 42% in rural areas. Therefore, the average per acre values of farmland for 1872 and 1882 were multiplied by 1.42 to yield the values in the table.

Sources: See text, footnote 11.

Table 3 Percentage of Probated Decedents Reporting Ownership of Inventory Assets by Category

Inventory category	1882	1892	1902
Other personal property	22.8	28.6	20.5
Real estate	70.9	77.9	72.1
Farm produce	22.8	16.2	7.4
Cash in bank	26.6	41.6	52.5
Cash on hand	36.7	33.8	25.4
Securities for money	10.1	4.5	5.7
Bank shares and other stocks	8.9	7.8	15.6
Life insurance	19.0	11.0	16.4
Moneys secured by mortgage	20.3	19.5	17.2
Book debts and promissory notes	40.5	27.9	29.5
Sheep and swine	21.5	14.9	6.6
Horned cattle	34.2	20.8	12.3
Horses	32.9	29.2	16.4
Stock in trade	17.7	9.1	8.2
Farm implements	26.6	21.4	13.1
Household goods and furniture	73.4	69.5	63.9

Note: The total number of decedents employed in these calculations is 355.

Sources: See text, footnote 11.

Changes in the composition of wealth-holding were underway during this period, and they are quite evident in Tables 3 and 4. There were significant changes in the percentage of decedents reporting specified assets between 1882 and 1902. The decline of the agricultural sector is reflected by a decrease in the proportion reporting farm-related assets. Between 1882 and 1902, the number reporting farming implements declined from 27 per cent to 13 per cent, stock-in-trade from 18 per cent to 8 per cent, horses from 33 per cent to 16 per cent, horned cattle from 34 per cent to 12 per cent, and sheep and swine from 22 per cent to 7 per cent.

Holdings of financial assets increased substantially from 1882 to 1902. There was a decline in the more traditional financial assets such as book debts, promissory notes, and mortgages, but an increase in bank shares and stocks and cash in bank. Financial institutions had begun to develop in earnest during the late nineteenth century, and the financial transition that

Table 4 Composition of Wealth 1882, 1892, and 1902

	1882 (%)	1892 (%)	1902 (%)
Other personal property	0.9	6.4	1.5
Real estate	41.9	60.0	37.8
Farm produce	1.1	0.3	0.4
Cash in bank	3.6	4.6	9.7
Cash on hand	3.9	1.0	0.8
Securities for money	1.5	3.7	4.6
Bank shares and other stocks	5.4	4.9	13.9
Life insurance	6.2	4.3	5.0
Moneys secured by mortgage	10.8	5.4	15.6
Book debts and promissory notes	7.2	4.3	3.8
Sheep and swine	0.2	0.1	0.1
Horned cattle	0.8	0.3	0.3
Horses	1.1	0.6	0.5
Stock in trade	11.1	1.6	3.6
Farm implements	1.1	0.3	0.2
Household goods and furniture	3.1	2.2	2.2

Note: Based on nominal wealth figures. Column totals may not sum to 100 due to rounding.

Source: See text, footnote 11.

they epitomized is evident from the decrease in the proportion of probated decedents reporting cash on hand and the significant increase in those reporting cash in bank (almost doubling from 26.6 to 52.5 per cent of decedents).

Although real estate was an important component of wealth and the proportion reporting it rose between 1872 and 1902, real estate's share of total wealth actually declined between 1882 and 1902 as that of financial assets rose. As a percentage of overall wealth, financial assets gained at the expense of tangible assets such as land and personal property. This evidence suggests the possibility of a transition towards a life-cycle savings pattern occurring in late nineteenth-century Wentworth County.

Some Inter-group Comparisons of Wealth and Wealth Distribution

Comparisons of wealth-holding among sub-groups of decedents over time serve to highlight differences between groups. Among the categories presented for independent comparison are decedents of "high" and "low" occupational status, native-born and foreign-born, farmers and non-farmers, Protestants and Catholics, men and women, and urban and rural residents. A more controlled investigation of wealth-holding using regression techniques follows these comparisons.

High and Low Occupational Status

Table 5 presents information on the decedents classified according to "high" or "low" occupational status. The proportion of decedents who were of high occupational status fell between 1872 and 1902, though they did manage to

Table 5 Comparison of High and Low Occupational Status Decedents

	1872	1882	1892	1902
No. High	34	54	70	64
No. Low	16	25	84	58
% High	68.0%	68.4%	45.5%	52.5%
% Low	32.0%	31.6%	54.4%	47.5%
<i>Share of total wealth (%)</i>				
High	76.9%	86.5%	77.3%	86.3%
Low	23.1%	13.5%	22.7%	13.7%
<i>Average wealth (\$)</i>				
High	\$8,477	\$7,678	\$16,526	\$14,102
Low	\$5,401	\$2,578	\$4,041	\$2,477
<i>Average real estate (\$)</i>				
High	\$3,906	\$3,444	\$10,355	\$5,036
Low	\$1,175	\$796	\$2,060	\$1,259
<i>Average financial assets (\$)</i>				
High	–	\$2,728	\$4,486	\$7,761
Low	–	\$1,383	\$1,289	\$1,076
<i>Average no. of children</i>				
High	3.47	3.52	3.97	2.92
Low	1.13	1.80	2.98	2.53
<i>Wealth distribution, high (%)</i>				
Quintile shares:				
1st	67.3%	62.3%	70.5%	73.7%
2nd	15.5%	19.2%	15.2%	14.3%
3rd	9.2%	9.2%	8.1%	7.7%
4th	5.4%	6.8%	4.7%	3.6%
5th	2.4%	2.6%	1.5%	0.7%
<i>Wealth distribution, low (%)</i>				
Quintile shares:				
1st	88.1%	67.3%	62.3%	54.8%
2nd	6.7%	19.1%	20.8%	25.9%
3rd	3.0%	8.2%	10.5%	11.9%
4th	1.7%	4.1%	5.1%	5.4%
5th	0.6%	1.4%	1.2%	2.0%
<i>Gini coefficient</i>				
High	0.607	0.574	0.656	0.701
Low	0.804	0.642	0.602	0.519

Note: For description of high and low occupational groups, see text, footnote 22. All dollar figures in 1900\$.

Sources: See text, footnote 11.

increase their share of total wealth. The average wealth of high occupational status decedents rose from 1872 to 1902, but that of low occupational status decedents declined, resulting in a widening gap between the two groups. Whereas in 1872 the average wealth of the high-status decedents was 1.6 times that of the low-status decedents, by 1902 it was 5.7 times greater. Both groups exhibit similar fluctuations over time, that is, declines in average wealth from 1872 to 1882 and 1892 to 1902 and an increase from 1882 to 1892. The average financial and real estate wealth of high occupational status decedents rose; average real estate wealth of low occupational status decedents rose slightly, but their average financial assets declined. As well, high occupational status decedents had, on average, a greater number of children than those of low occupational status, though both groups exhibited a rising average number of children from 1872 to 1892 and then a decline from 1892 to 1902.

Information on wealth distribution is provided through the use of quintile shares and Gini Coefficients for each group.²⁴ It would appear that, between 1872 and 1902, wealth came to be more unequally held amongst those of high occupational status and more equally held amongst those of low occupational status. For those of high occupational status, the Gini rose from 0.607 to 0.701 while, for those of low occupational status, it actually fell from 0.804 to 0.519. Whereas in 1872 wealth was more equally distributed amongst those of high rather than low occupational status, by 1902 the situation had apparently reversed.

Native-Born and Foreign-Born

In Table 6, the probated decedents have been grouped according to whether they were native- or foreign-born. The proportion of decedents who were foreign-born declined between 1872 and 1902, as did their share of total wealth. Even so, the average wealth of both groups rose over this period. The gap between the two groups narrowed: whereas in 1872 the average wealth of foreign-born decedents was 2.7 times that of native-born decedents, by 1902 it was only twice as great. In fact, in 1892 the average wealth of the native-born actually exceeded that of the foreign-born. The average wealth of the latter declined from 1872 to 1882 but rose from 1882 to 1902. Wealth held by native-born decedents, on the other hand, rose from 1872 to 1892 and then declined from 1892 to 1902. Both groups experienced an increase in average real estate and average financial assets between 1872 and 1902. The average number of children of native-born decedents was greater than for the foreign-born, though both groups exhibited a rising

24 The Gini Coefficient is a measure of inequality that takes on a value between 0 and 1 where 0 denotes perfect equality and 1 perfect inequality. This and other measures of inequality are described in F. A. Cowell, *Measuring Inequality: Techniques for the Social Sciences* (New York: Halsted Press, 1977), pp. 150–155.

Table 6 Comparison of Native-Born and Foreign-Born Decedents

	1872	1882	1892	1902
No. foreign-born	39	60	93	54
No. native-born	11	19	61	68
% foreign-born	78.0%	75.9%	60.4%	44.3%
% native-born	22.0%	24.1%	39.6%	55.7%
<i>Share of total wealth (%)</i>				
Foreign-born	90.7%	86.5%	59.0%	61.3%
Native-born	9.3%	13.5%	41.0%	38.7%
<i>Average wealth (\$)</i>				
Foreign-born	\$8,712	\$6,906	\$9,495	\$11,880
Native-born	\$3,170	\$3,404	\$10,052	\$5,951
<i>Average real estate (\$)</i>				
Foreign-born	\$3,280	\$2,783	\$5,586	\$4,036
Native-born	\$2,152	\$2,049	\$6,203	\$2,609
<i>Average financial assets (\$)</i>				
Foreign-born	–	\$2,733	\$2,321	\$6,408
Native-born	–	\$943	\$3,384	\$3,134
<i>Average no. of children</i>				
Foreign-born	2.13	2.93	3.40	2.33
Native-born	4.82	3.11	3.48	3.05
<i>Wealth distribution, foreign-born (%)</i>				
Quintile shares:				
1st	75.8%	62.8%	74.6%	73.5%
2nd	13.7%	19.4%	13.7%	14.5%
3rd	6.3%	9.8%	7.4%	7.8%
4th	3.6%	6.1%	3.5%	3.2%
5th	0.7%	2.0%	0.8%	0.9%
<i>Wealth distribution, native-born (%)</i>				
Quintile shares:				
1st	44.8%	71.2%	70.7%	74.2%
2nd	27.0%	18.0%	15.9%	14.8%
3rd	13.7%	6.9%	8.5%	7.9%
4th	8.3%	3.1%	3.8%	2.5%
5th	6.3%	0.7%	1.0%	0.6%
<i>Gini coefficient</i>				
Foreign-born	0.693	0.592	0.702	0.706
Native-born	0.453	0.667	0.684	0.715

Notes: All dollar figures in 1900\$.

Sources: See text, footnote 11.

average number of children from 1872 to 1892 and then a decline from 1892 to 1902.

Information on wealth distribution is again provided through quintile shares and Gini Coefficients for each group. It would appear that, between 1872 and 1902, wealth came to be more unequally held amongst the native-born, but inequality remained almost unchanged for the foreign-born. For the foreign-born, the Gini rose slightly from 0.693 to 0.706, while for the native-born it rose from 0.453 to 0.715. In 1872 wealth was far more equally distributed amongst the native-born, but by 1902 there was little difference between the two groups.

Farmer and Non-Farmer

Summary information on farmer and non-farmer probated decedents is presented in Table 7. The proportion of decedents who were farmers declined between 1872 and 1902, but their share of total wealth remained approximately the same. The average wealth of farmer decedents rose steadily from 1872 to 1902; that of non-farmers declined from 1872 to 1882 and 1892 to 1902, but rose from 1882 to 1892. Whereas in 1872 the average wealth of farmers was one-half that of non-farmers, by 1902 it was 1.1 times greater. Interestingly enough, the average real estate wealth of farmers increased from 1872 to 1902 while that of non-farmers declined. Moreover, the average financial assets held by both farmers and non-farmers increased. Also, farmers tended to have more children, on average, than non-farmers, although both groups exhibited a rising average number of children from 1872 to 1892 and a decline thereafter.

As for wealth distribution, it would appear that, between 1872 and 1902, wealth came to be much more unequally held amongst farmers and only slightly more unequally held amongst non-farmers. For farmers, the Gini Coefficient rose from 0.390 to 0.525, and for non-farmers it rose from 0.750 to 0.771. In general, wealth was more equally held amongst farmers than non-farmers.

Protestant and Catholic

Wealth-holding of Protestant and Catholic decedents is compared in Table 8. The proportion of decedents who were Protestant fell between 1872 and 1902, as did their share of total wealth. The average wealth of Catholic decedents rose from 1872 to 1902 and that of Protestants declined slightly, resulting in first a narrowing and then a reversal of the gap between the two groups. Whereas in 1872 the average wealth of Protestant decedents was 9 times that of Catholic ones, by 1902 the average wealth of Catholics was 1.7 times that of Protestants in the sample. Catholics' wealth rose steadily from 1872 to 1902 while that of Protestants fell from 1872 to 1882 and 1892 to 1902, with an increase only from 1882 to 1892. Both groups exhibited a decrease in average real estate wealth from 1892 to 1902 and an increase in average financial assets from 1882 to 1902. As for children,

Table 7 Comparison of Farmer and Non-Farmer Decedents

	1872	1882	1892	1902
No. farmer	20	29	37	28
No. non-farmer	30	50	117	94
% farmer	40.0%	36.7%	24.0%	23.0%
% non-farmer	60.0%	63.3%	76.0%	77.0%
<i>Share of total wealth (%)</i>				
Farmer	26.0%	39.8%	18.7%	24.7%
Non-farmer	74.0%	60.2%	81.3%	75.3%
<i>Average wealth (\$)</i>				
Farmer	\$4,872	\$6,572	\$7,545	\$9,215
Non-farmer	\$9,239	\$5,769	\$10,402	\$8,385
<i>Average real estate (\$)</i>				
Farmer	\$2,894	\$3,457	\$5,334	\$4,962
Non-farmer	\$3,124	\$2,112	\$5,988	\$2,728
<i>Average financial assets (\$)</i>				
Farmer	–	\$2,332	\$1,454	\$3,486
Non-farmer	–	\$2,285	\$3,150	\$4,910
<i>Average no. of children</i>				
Farmer	4.05	4.17	4.46	3.32
Non-farmer	1.83	2.28	3.10	2.56
<i>Wealth distribution, farmers (%)</i>				
Quintile shares:				
1st	48.7%	54.9%	48.1%	56.9%
2nd	21.3%	23.0%	21.1%	21.7%
3rd	14.0%	11.9%	14.9%	13.8%
4th	10.3%	7.6%	11.2%	6.9%
5th	6.5%	2.7%	4.6%	0.8%
<i>Wealth distribution, non-farmers (%)</i>				
Quintile shares:				
1st	82.8%	71.7%	78.1%	80.5%
2nd	11.0%	15.4%	12.3%	10.9%
3rd	3.9%	8.4%	5.8%	5.7%
4th	1.8%	3.4%	2.9%	2.2%
5th	0.5%	1.1%	1.0%	0.7%
<i>Gini coefficient</i>				
Farmer	0.390	0.497	0.439	0.525
Non-farmer	0.750	0.679	0.742	0.771

Note: All dollar figures in 1900\$.

Sources: See text, footnote 11.

Table 8 Comparison of Protestant and Catholic Decedents

	1872	1882	1892	1902
No. Protestant	47	74	138	104
No. Catholic	3	5	16	18
% Protestant	94.0%	93.7%	89.6%	85.2%
% Catholic	6.0%	6.3%	10.4%	14.8%
<i>Share of total wealth (%)</i>				
Protestant	99.3%	98.7%	93.2%	77.0%
Catholic	0.7%	1.3%	6.8%	23.0%
<i>Average wealth (\$)</i>				
Protestant	\$7,915	\$6,391	\$10,106	\$7,747
Catholic	\$866	\$1,220	\$6,348	\$13,363
<i>Average real estate (\$)</i>				
Protestant	\$3,225	\$2,740	\$6,033	\$3,260
Catholic	0	\$619	\$4,088	\$3,132
<i>Average financial assets (\$)</i>				
Protestant	–	\$2,425	\$2,995	\$3,923
Catholic	–	\$481	\$556	\$8,398
<i>Average no. of children</i>				
Protestant	2.66	3.09	3.51	2.81
Catholic	3.67	1.20	2.69	2.33
<i>Wealth distribution, Protestants (%)</i>				
Quintile shares:				
1st	72.0%	64.7%	73.3%	73.1%
2nd	14.5%	18.8%	14.3%	15.7%
3rd	7.2%	10.2%	8.2%	7.7%
4th	4.4%	5.0%	3.4%	2.7%
5th	1.8%	1.4%	0.7%	0.8%
<i>Wealth distribution, Catholics (%)</i>				
Quintile shares:				
1st	39.5%	43.9%	72.6%	83.9%
2nd	30.3%	27.0%	11.7%	9.0%
3rd	11.8%	16.7%	7.3%	4.8%
4th	9.7%	9.4%	5.6%	2.0%
5th	8.7%	3.0%	2.9%	0.3%
<i>Gini coefficient</i>				
Protestant	0.676	0.610	0.696	0.705
Catholic	0.346	0.398	0.659	0.783

Note: All dollar figures in 1900\$.

Sources: See text, footnote 11.

except for 1872, Protestant decedents always had a greater average number of children than Catholics. Moreover, Protestants exhibited a slight overall increase in number of children between 1872 and 1902, while for Catholics a decline occurred.

Between 1872 and 1902, wealth came to be much more unequally held amongst Catholics and slightly more unequally held amongst Protestants. For Catholics, the Gini Coefficient rose from 0.346 to 0.783, while for Protestants it rose from 0.676 to 0.705. Protestants' wealth was more unequally distributed than that of Catholics before 1902.

Male and Female

Table 9 presents wealth information on male and female probated decedents. The proportion of male decedents declined between 1872 and 1902, as did their share of total wealth. The average wealth of male and female decedents rose from 1872 to 1902, the average wealth gap between the two groups narrowing slightly. In 1872 men held an average wealth 5.9 times greater than that of women; by 1902 it was only 4.5 times greater. Both groups exhibited the same fluctuations over time, that is, declining average wealth from 1872 to 1882 and from 1892 to 1902, and an increase from 1882 to 1892.

Between 1872 and 1902, wealth came to be more unequally held amongst both men and women. For men the Gini Coefficient rose from 0.675 to 0.719, while for women it rose from 0.338 to 0.546. On the whole, wealth distribution was more unequal amongst men than women.

Urban and Rural

Finally, Table 10 presents information on the probated decedents according to whether they were urban or rural residents. The proportion of decedents who were rural declined between 1872 and 1902, as did their share of total wealth. The average wealth of rural decedents rose steadily from 1872 to 1902, but that of urban decedents declined, resulting in a narrowing of the gap between the two groups. Whereas in 1872 the average wealth of the urban decedents was 2.6 times that of rural decedents, by 1902 it was only 1.4 times greater. Urban decedents exhibited declines in average wealth from 1872 to 1882 and 1892 to 1902 and an increase from 1882 to 1892. For rural decedents there were no such fluctuations. Rural decedents had, on average, more children than urban ones, although between 1872 and 1902 the average number of children of urban decedents increased while that of rural decedents declined.

In general, wealth was more unequally distributed amongst urban decedents than rural ones. However, the inequality increased for both groups. Between 1872 and 1902, the Gini Coefficient rose from 0.732 to 0.778 for urban decedents and from 0.472 to 0.578 for rural decedents.

Table 9 Comparison of Male and Female Decedents

	1872	1882	1892	1902
No. male	44	62	112	88
No. female	6	17	42	34
% male	88.0%	78.5%	72.7%	72.1%
% female	12.0%	21.5%	27.3%	27.9%
<i>Share of total wealth (%)</i>				
Male	97.7%	94.5%	89.5%	92.1%
Female	2.3%	5.5%	10.5%	7.9%
<i>Average wealth (\$)</i>				
Male	\$8,322	\$7,298	\$11,952	\$10,948
Female	\$1,410	\$1,564	\$3,752	\$2,433
<i>Average real estate (\$)</i>				
Male	\$3,392	\$3,184	\$7,352	\$4,067
Female	\$391	\$497	\$1,773	\$1,102
<i>Average financial assets (\$)</i>				
Male	–	\$2,721	\$3,100	\$5,884
Female	–	\$774	\$1,788	\$1,215
<i>Wealth distribution, men (%)</i>				
Quintile shares:				
1st	73.1%	61.5%	73.6%	75.1%
2nd	14.8%	19.5%	14.0%	14.0%
3rd	7.2%	9.7%	7.7%	7.2%
4th	4.0%	6.5%	3.8%	3.0%
5th	0.8%	2.8%	0.9%	0.7%
<i>Wealth distribution, women (%)</i>				
Quintile shares:				
1st	37.0%	60.3%	54.4%	55.9%
2nd	27.3%	20.4%	24.3%	26.4%
3rd	20.2%	10.6%	12.5%	10.6%
4th	11.0%	6.2%	6.7%	5.0%
5th	4.6%	2.5%	2.0%	2.2%
<i>Gini coefficient</i>				
Male	0.675	0.496	0.699	0.719
Female	0.338	0.555	0.518	0.546

Note: All \$ figures in 1900\$

Sources: See text, footnote 11.

Table 10 Comparison of Urban and Rural Decedents

	1872	1882	1892	1902
No. urban	22	40	93	77
No. rural	28	39	61	45
% urban	44.0%	50.6%	60.4%	63.1%
% rural	56.0%	49.4%	39.6%	36.9%
<i>Share of total wealth (%)</i>				
Urban	67.4%	55.0%	75.5%	70.9%
Rural	32.6%	45.0%	24.5%	29.1%
<i>Average wealth (\$)</i>				
Urban	\$11,484	\$6,591	\$12,149	\$9,636
Rural	\$4,357	\$5,523	\$6,006	\$6,761
<i>Average real estate (\$)</i>				
Urban	\$3,791	\$2,474	\$7,059	\$2,974
Rural	\$2,435	\$2,742	\$3,958	\$3,697
<i>Average financial assets (\$)</i>				
Urban	–	\$2,460	\$3,542	\$5,782
Rural	–	\$2,140	\$1,523	\$2,529
<i>Average no. of children</i>				
Urban	1.91	2.48	3.13	2.52
Rural	3.36	3.49	3.89	3.11
<i>Wealth distribution, urban (%)</i>				
Quintile shares:				
1st	79.1%	71.6%	80.4%	81.4%
2nd	13.3%	14.7%	11.5%	9.9%
3rd	4.8%	8.5%	5.0%	5.6%
4th	2.0%	3.9%	2.4%	2.3%
5th	0.8%	1.3%	0.6%	0.8%
<i>Wealth distribution, rural (%)</i>				
Quintile shares:				
1st	55.5%	57.8%	51.4%	58.4%
2nd	21.0%	22.6%	22.6%	22.1%
3rd	13.0%	12.3%	15.6%	14.0%
4th	8.4%	5.7%	8.7%	4.2%
5th	2.1%	1.5%	1.7%	1.3%
<i>Gini coefficient</i>				
Urban	0.732	0.670	0.747	0.778
Rural	0.472	0.545	0.490	0.578

Note: All dollar figures in 1900\$.

Sources: See text, footnote 11.

Some Patterns of Wealth-Holding

Some patterns begin to emerge from the data displayed in Tables 5 to 10 regarding wealth-holding amongst the probated decedents of Wentworth County. Although average wealth for the decedents as a whole fell during the first and last decades of the period in question and rose only from 1882 to 1892, this pattern is not uniformly present amongst the various sub-groups. The decline in average wealth between 1872 and 1882 affected decedents who were of high and low occupational status, foreign-born, non-farmers, Protestant, male, and urban. Between 1872 and 1882, the native-born, farmer, Catholic, female, and rural decedents actually demonstrated an increase in average wealth. The increase in average wealth between 1882 and 1892 affected all the probated decedents. The decrease between 1892 and 1902 is observed amongst those of both high and low occupational status, the native-born but not the foreign-born, non-farmers but not farmers, both Protestants and Catholics, men and women, and urban but not rural dwellers.

As for financial assets, the greatest percentage increases in average value between 1882 and 1902 were amongst those of high occupational status, the native-born, and Catholics. The large increase in financial assets among Catholics perhaps explains in part why their average number of children did not exceed that of Protestants by 1902. The transition to a life-cycle pattern of saving implies an inverse relationship between accumulation of financial assets and number of children: possibly the Catholic decedents in this data set were making the life-cycle transition earlier than the Protestants, although the reasons why this would be so remain unclear. Those of low occupational status exhibited decreases in the average value of financial assets. The greatest percentage increases in the average value of real estate wealth were amongst Catholics, women, and farmers, while amongst non-farmers and urban residents this value actually decreased.

In terms of distribution over time, wealth gravitated towards decedents who were urban, female, Catholic, native-born, non-farmers, or of high occupational status. All of these groups saw an increase in their share of total wealth between 1872 and 1902. In general, wealth was more equally distributed amongst those of low occupational status as opposed to high-status decedents, the native-born as opposed to the foreign-born, farmers relative to non-farmers, Catholics relative to Protestants, women relative to men, and rural as opposed to urban decedents. Inequality increased amongst high occupational status decedents between 1872 and 1902 and decreased amongst those of lower status. On the other hand, greater inequality over time was evident amongst both the foreign- and native-born, farmers and non-farmers, Protestants and Catholics, men and women, and urban and rural dwellers.

One common denominator in the above relationships appears to be the apparent association between average level of wealth and its distribution. Aside from one or two exceptions, the sub-group with the higher average

wealth was the one in which greater inequality prevailed. Moreover, over time, those groups whose average wealth increased also tended to exhibit growing inequality, while those whose average wealth decreased demonstrated a trend towards more even distribution.

Much of this inter-group analysis relies essentially on descriptive statistics, including measures of inequality. Clearly, in setting out some broad patterns of inter-group differences and similarities, we have only touched the surface of such comparisons, each of which could form a major study in itself when fully grounded in the relevant secondary literature and other primary records. In the case of the high occupational status versus low occupational status groups, for example, one could as well undertake many comparisons based on different definitions of occupational status or using specific occupational indices to assess the robustness of the results we report.

The Determinants of Wealth-Holding

The historical micro-data contain evidence of the determinants of the level of wealth held at death and of the importance of a bequest motive for saving and accumulating wealth. Economic historians have viewed the bequest motive as rooted in the agricultural nature of the pre-industrial economy. The fundamental factor of production in an agricultural economy was land, and the amount of land an individual held came to be not only a measure of wealth and status but also the means to ensure support in old age. As James Henretta writes of the American Colonial family: “the basic question of power and authority within the family hinged primarily on legal control over the land and indirectly — over the labour needed to work it.”²⁵ Similarly, in Peel County, Upper Canada, it was the ownership of real property that was one of the most appropriate measures of economic and social distinction.²⁶

Children in colonial North America provided one means through which land could be made to yield a return. This economic dependence on family labour, as Ransom and Sutch have noted, gave parents the “incentive to employ the promise of an inheritance as a control device to extract labour from their children and to ensure that their children would care for them in old age”.²⁷ Moreover, as Sundstrom and David have observed, rational parents would also have an incentive to breed large families, realizing that having a large number of children competing for attention would strengthen their bargaining position with regard to any one child.²⁸ The inheritance

25 J. Henretta, “Families and Farms: *Mentalité* in Pre-Industrial America”, *William and Mary Quarterly*, vol. 35 (1978), pp. 3–32.

26 Gagan, *Hopeful Travellers*, p. 99.

27 Ransom and Sutch, “The Life-Cycle Transition”, p. 18.

28 W. A. Sundstrom and P. A. David, “Old Age Security Motives, Labour Markets, and Farm Fertility in Antebellum America”, *Explorations in Economic History*, vol. 25 (1988), pp. 166–197.

was designed to provide offspring with a start in life, and this translated into the specific assumption made by Easterlin that a farmer “seeks to provide a start in life for each of his offspring at least as good as that which his father gave to him”.²⁹ The probated decedents of nineteenth-century Wentworth County appear to have manifested many of these characteristics of the bequest motive. Wills commonly specified the services that children were to provide for the surviving spouse and attached penalties if they did not comply with the wishes of the deceased.³⁰

As we noted earlier, however, some economic historians, notably Roger Ransom and Richard Sutch,³¹ have found evidence during the nineteenth century in the United States of a decline in the bequest motive for saving and an increase in the prevalence of life-cycle saving — the desire to amass a stock of financial assets to finance consumption in old age independent of offspring. It would be of interest, therefore, to see whether saving habits in late nineteenth-century Wentworth county were yet marked by a transition to a life-cycle pattern of saving.

The presence of terminal wealth itself does not constitute evidence for or against the existence of a particular saving motive. Given that lifetime is uncertain, even if there were no bequest motive, one would still find individuals dying with positive levels of terminal wealth.³² To determine the motives for wealth-holding, one must examine those variables that are affected by the presence of the bequest motive and the relationship between these observable variables and wealth.³³

For example, life-cycle saving implies a hump-shaped wealth-age profile as individuals accumulate wealth during their working years and then run down their assets during retirement. On the other hand, if the bequest motive is present, one would expect to see a positive relationship between the level of terminal wealth and the number of surviving children. An increase in the number of children would reduce the level of the potential per

29 R. A. Easterlin, “Population Change in Farm Settlement in the Northern United States”, *Journal of Economic History*, vol. 36 (1976), p. 65.

30 For example, Phillip Gage (WC #3369, 1892), a farmer, bequeathed all of his real and personal estate to his widow Mary Ann for the maintenance of herself and the children. The children were required to assist the widow in maintaining the farm with payment of an inheritance after the death of his widow conditional on the child having complied with her interests.

31 Ransom and Sutch, “The Life-Cycle Transition”.

32 Economist Jim Davies has shown that a life-cycle model without a bequest motive can account for observed saving behaviour when uncertain lifetime is taken into account. See J. Davies, “Uncertain Lifetimes, Consumption and Dissaving in Retirement”, *Journal of Political Economy*, vol. 89 (1981), pp. 561–577. In the late nineteenth century, retirement, though not unheard of, was not important, and therefore it seems unlikely that lifetime uncertainty played much of a role in the accumulation of wealth.

33 Michael Hurd proposes this approach to infer the importance of the bequest motive. See Michael D. Hurd, “Savings of the Elderly and Desired Bequests”, *American Economic Review*, vol. 77 (1987), pp. 298–312.

capita bequest, and therefore one would save more in order to maintain the inheritance for each child. This, of course, assumes that children are treated approximately equally. A positive relationship between the number of children and wealth would not likely be evident if primogeniture prevailed.³⁴

In Ontario, the latter half of the nineteenth century saw a movement towards the equal treatment of heirs. According to David Gagan, impartible settlements (one principal heir favoured to the exclusion of all other claimants) in Peel County only accounted for about 20 per cent of all the estates probated between 1840 and 1890.³⁵ As for the pattern of estate settlement amongst the probated decedents of Wentworth County, less than 20 per cent of the estates where the decedent was testate and had children could be classified as impartible. Therefore, a positive relationship between the level of terminal wealth and the number of surviving children in this data set can be interpreted as evidence supporting the existence of a bequest motive.

An econometric model to explain wealth-holding could be formulated by drawing upon the body of micro-economic literature dealing with fertility and saving hypotheses.³⁶ This approach was rejected here, however, because the necessary demand functions would have been difficult to implement given that consumption, wage, and various cost-of-children variables are not present in the Wentworth County data set. Instead, we employ a reduced-form econometric model with a comprehensive set of variables to discern not only the determinants of wealth but also the applicability of the bequest and life-cycle motives for saving. This approach allows us to repeat the analysis regarding the behaviour of sub-groups, this time controlling for other variables and characteristics.

Real terminal wealth is modelled as a function of a set of socio-economic variables. The model was estimated using the multiple regression technique known as Ordinary Least Squares and the estimations were made using Shazam Version 6.2. Using a log-linear specification, we regressed the log of real wealth on the available socio-economic variables. The variables used and their definitions are presented in Table 11 for reference.

34 The question arises as to why bequests would take the form of a target per child rather than a target for the total bequest. Aside from notions of fairness, one possibility is that when several children are available such a strategy minimizes the risk of relying on only one child for care and support during old age. As well, such a strategy spreads the economic burden of care amongst all the surviving children. Moreover, if the aim of a bequest is also to provide each child with a "start in life", as argued by Easterlin in "Population Change in Farm Settlement", then bequests would naturally take the form of a target per child.

35 Gagan, "The Indivisibility of Land", p. 129.

36 For example, one could draw upon the micro-economic approach to household behaviour pioneered by economist Gary S. Becker. See Gary S. Becker, "A Theory of the Allocation of Time", *Economic Journal*, vol. 75 (1965), pp. 493–517; G. S. Becker and G. H. Lewis, "The Interaction Between the Quantity and Quality of Children", *Journal of Political Economy*, vol. 81 (1973), pp. 279–288.

Table 11 Variables Used in Regression Study

LWEL	The log of real wealth. Real wealth is in 1900\$. (See Table 2, note 1.)
AGE	Age at death of probated decedent in years.
AGESQ	Age at death of probated decedent squared.
CHILD	Number of living children a probated decedent had at his or her death as revealed by the probate and census records.
SEX	1 if decedent was male, 0 otherwise.
URB	1 if decedent was urban, 0 otherwise.
OCCH	1 if decedent was of high occupational status, 0 otherwise. ¹
OCCF	1 if decedent was a farmer, 0 otherwise.
MARMAL	1 if decedent was a married male, 0 otherwise.
Y72	1 if decedent's estate probated in 1872, 0 otherwise.
Y82	1 if decedent's estate probated in 1882, 0 otherwise.
Y92	1 if decedent's estate probated in 1892, 0 otherwise.
NB	1 if decedent was native-born (Canada and Newfoundland), 0 otherwise.
IRISH	1 if probated decedent was born in Ireland, 0 otherwise.
CATH	1 if decedent was Catholic, 0 otherwise.

1) An individual was considered to be of high occupational status if his or her occupation belonged to either Category I or II of the Katz occupational classification. Category I, for example, contains lawyers, merchants, and doctors. Category II includes farmers, minor government officials, and small businessmen.

The socio-economic characteristics used in the regression include whether the decedent was an urban dweller, Katz occupational status, whether the decedent can be identified as a farmer, gender, whether the decedent was a married male, and number of children. Aside from wealth, age, age squared, and number of children, the variables are dummy variables, meaning that they take on a value of one if a probated decedent has the characteristic described by the variable and zero otherwise.

For some of the variables, there are expected directions of influence. For example, being an urban dweller would likely have a positive effect on the level of terminal wealth, as urban areas were concentrations of industry and commerce where one would expect, on average, to see higher levels of wealth. Again, marital status for men would be expected to have a positive effect on the level of terminal wealth, especially in rural areas. Married women provided unpaid labour on the land which "freed" men for participation in market wage-earning opportunities.³⁷

Variables such as occupational status can serve as income proxies. One would expect to see individuals in high-status occupations such as doctors and merchants with higher levels of terminal wealth than those in low-status occupations such as common labourers. In the case of gender, one would expect men to accumulate more wealth than women. Other variables, such as being Catholic or native-born, are included in an effort to see whether

³⁷ Cohen, *Women's Work, Markets and Economic Development*, p. 38.

they are statistically significant determinants of the level of wealth when other variables are controlled. In addition to the native-born variable, one is also included for those decedents whose birthplace was Ireland. This variable was added because of evidence that “non-Irish and Irish are interchangeable synonyms for rich and poor” in the nineteenth century.³⁸ The Irish could have had a different experience with respect to accumulation of wealth than other foreign-born decedents that would not have been detected using the broader birthplace variable.

The test of the life-cycle motive for saving is the inclusion of age and age squared as variables to see whether a hump-shaped wealth-age profile with statistically significant coefficients emerges. The inclusion of number of children is an attempt to test for the existence of a bequest motive.³⁹

The results from the regression are presented in Table 12. Since the model used a log-linear specification, the coefficient estimates can be interpreted as percentages. For example, controlling for all the other variables, we can associate each additional year of age with an increase of 7.9 per cent in real terminal wealth. Controlling for all other variables, we can similarly associate each child with an increase of 7.1 per cent in the level of real terminal wealth. More dramatically, high occupational status raises the level of real terminal wealth by 131 per cent while being an urban dweller increases the level of terminal wealth by approximately 24 per cent.

Not all the coefficient estimates are statistically significant at the 5 per cent level, however.⁴⁰ It would appear that the significant determinants of the level of real terminal wealth are age and age squared, high occupational

38 David P. Gagan, “Class and Society in Victorian English Canada: An Historiographical Reassessment”, *British Journal of Canadian Studies*, vol. 4 (1989), p. 77.

39 A positive relationship between children and wealth could also exist if children were net economic assets, that is, if they contributed to wealth accumulation. In the nineteenth century, women and children were a very important source of labour in rural areas. In urban areas, though men were the primary breadwinners, families very often needed more than one worker to survive the winter and as a result wives and older children entered the labour force. For a discussion, see Chad Gaffield, “Canadian Families in Cultural Context: Hypotheses from the Mid-Nineteenth Century”, *Historical Papers, Canadian Historical Association* (1979), pp. 48–70; Bradbury, “The Family Economy and Work in an Industrializing City”, pp. 71–96. As time went on, however, especially in urban areas, children went from being a source of income to being economic liabilities requiring food, clothing, shelter, and education. The net costs of childrearing would likely be more onerous in an urban setting where children had a lesser role as “producers” but continued to exercise their role as “consumers”. An illustration of the costs of raising children is provided by a reference in the probate records. Julius and Elizabeth Adelaide, in applying for letters of administration over the estate of their daughter, Edith, aged 19 (WC #1809, #1821, 1881), stated that the cost of providing care, maintenance, clothing, and schooling from 1875 to 1881 was \$718, which suggests that the annual expense of rearing an adolescent female child was about \$120 *per annum*. This is a large sum given that a labourer such as a moulder could expect to earn about \$400 dollars *per annum* in the 1880s.

40 The level of significance is the probability that, on the basis of the information in the sample, we could reject a hypothesis that is in fact true. When the level of significance is 5%, we accept the risk that we could be rejecting a true hypothesis 5% of the time.

Table 12 Wealth Equation: Results

Independent variable	Coefficient	T-statistic
AGE	0.0790	3.0746*
AGESQ	-0.0005	-2.4696*
URB	0.2420	1.2512
SEX	-0.2311	-1.0327
OCCH	1.3078	7.0054*
OCCF	-0.1982	-0.8218
CATH	0.1454	0.6386
NB	0.0043	0.0289
IRISH	-0.3902	-2.0582*
MARMAL	0.3602	2.1026*
CHILD	0.0708	2.5547*
Y72	-0.0172	-0.0768
Y82	-0.0231	-0.1199
Y92	0.3328	2.1233*
CONSTANT	4.1937	5.4487*
Adjusted R-squared	0.2664	
Sample size	405	
F-statistic	11.478*	

* Significant at the 5% level.

Notes: Dependent variable is Log of Real Terminal Wealth (LWELT). The F-statistic is a test of the overall significance of the regression, that is, whether the coefficient estimates are significantly different from zero.

status, the number of children, being a married male, and whether one was Irish. Moreover, wealth was significantly higher in 1892 relative to the omitted category, 1902, suggesting that the drop in wealth after 1892 was a statistically significant event. These results indicate that the 1880s were indeed a time of increasing wealth while the 1890s saw a deterioration in wealth accumulation.

Variables such as being male, Catholic, native-born, urban, and a farmer were not statistically significant determinants of the level of real terminal wealth. However, being a married male increased the level of terminal wealth by 36 per cent, and this result was statistically significant, thereby supporting Cohen's view that women were important to the process of capital accumulation in the nineteenth century.

The significance of the age, age-squared, and child variables confirms the existence of both life-cycle and bequest motives for saving. This suggests that Wentworth County may have been in the midst of a transition to life-cycle saving, as hypothesized for the United States by Ransom and Sutch. Although there was still a significant bequest motive, the presence of a hump-shaped wealth-age profile with significant coefficients indicates that the pattern of accumulating assets during youth and middle age for use in old age was already developing. That this transition can be detected in Wentworth County during the period 1872 to 1902 is not surprising, given

the increasing urbanization of the county and the rise of non-farm employment opportunities, the decline of agricultural employment as evidenced by the proportion of probated decedents employed as farmers, and the rise in holdings of financial assets.

Conclusion

The period from 1872 to 1902 was one of economic change in Wentworth County as the transition was made from agriculture and commerce to industry. These changes are reflected in the rising urbanization of the county. Change also affected the pattern of wealth accumulation. Despite cyclical fluctuations, the years from 1872 to 1892 were definitely a time of rising wealth while a decline occurred between 1892 and 1902; different groups had different experiences, however.

In general, decedents who were female, native-born, rural, Catholic, farmers, and of high occupational status had accumulated some wealth during this period. Urban dwellers, those of low occupational status, and Protestants exhibited a decline in average wealth, with the decline being driven largely by a collapse in the value of real estate held. The improvement in the amount of wealth held by women is a sign that the property law reforms of the late nineteenth century were having some effect. The average value of financial assets rose for nearly all the sub-groups examined, suggesting that this transition was a broadly based economic experience.

An unfortunate side-effect of increasing wealth was the associated increase in inequality of its distribution. For those groups which exhibited an increase in wealth, the wealth distribution within the respective groups became more unequal. Therefore, increases did not affect everyone equally. Those who were able to take advantage of the changes of the late nineteenth century prospered, while others, either less fortunate or less able, did not.

As a whole, these results suggest the importance of breaking down aggregate economic data so that the sub-groups of society are examined separately in a descriptive analysis. Trying to portray a period of history in terms of a few broad themes may be unrealistic when the society in question is composed of individuals and groups whose life experiences could differ substantially. When the broad economic gains of the late nineteenth century are examined more clearly, it would appear that there were winners and losers. The late nineteenth century saw a trickling down of wealth to women and Catholics, and a rise in the number of domestic wealth-holders as the proportion of foreign-born wealth-holders shrank. On the other hand, although there were more individuals of low occupational status who died with some wealth, their average level of wealth declined, and wealth tended to become more concentrated among those of high occupational status.

An econometric examination of the entire data set, using regression analysis, ascertains the statistical significance of various variables determining wealth. From the regression results obtained, it would appear that over the period from 1872 to 1902, real wealth was positively and significantly

related to high occupational status, age, being a married male, and number of children, but negatively and significantly related to age squared and being born in Ireland. The amount of wealth held by decedents in 1892 was also significantly higher than that held in 1902, while wealth levels in 1872 and 1882 did not differ significantly from 1902.

These results suggest that the increases in wealth of those who were female, rural, farmers, and Catholic were not statistically very significant once other factors are controlled such as occupational status, age, marital status if male, and number of children. The increase in wealth held by those who were native-born is also not statistically very significant when one takes the Irish-born into account as a separate variable. The foreign-born who were English or Scottish would appear to have done as well as, if not better than, the native-born in their accumulation of wealth during much of this period. These results demonstrate the importance of regression analysis in assessing whether or not broad trends and patterns are statistically significant.

The findings present strong evidence supporting the existence of a bequest motive for saving and accumulating wealth as well as a life-cycle motive. The positive and significant relationship between wealth and number of children suggests the presence of a bequest motive. At the same time, a hump-shaped wealth-age profile emerged from the regression results, indicating that individuals were pursuing life-cycle saving. The juxtaposition of both life-cycle and bequest motives leads us to conclude that during the late nineteenth century, as part of the process of industrialization and urbanization, Wentworth County was also undergoing a transition to a pattern of life-cycle saving. Individuals began to accumulate assets not only to pass on to heirs in return for old-age support but also to finance their own consumption in old age independently of their children. A transition from an old-age security system based on family obligations to one based on market relationships was slowly being made.

These results have implications for future research. Change in saving habits during the late nineteenth century is a factor that could also lead to a new understanding of the process of industrialization in Canada. Ransom and Sutch concluded that, in the United States, the accumulation of financial assets for life-cycle saving during the late nineteenth century was instrumental in financing American industrialization. In Canada during the late nineteenth century, the average decade ratio of saving to Gross National Product was 8 to 10 per cent, but after 1900 it jumped to 15 or 16 per cent, a result consistent with the accumulation of assets under a transition to life-cycle saving.⁴¹

It is possible that the rise in domestic saving for life-cycle purposes

41 These figures were obtained from Urquhart, "New Estimates", pp. 33–34. (See Table 2, note 1). They are: 1870–1879, 8.8%; 1880–1889, 10.0%; 1890–1899, 8.3%; 1900–1909, 15.7%; 1910–1919, 15.8%.

created a larger pool of domestic capital which accentuated the investment boom of the early twentieth century. Moreover, different speeds of change in this regard across regions might provide an explanation for regional differences in the development of manufacturing. Perhaps one reason why nineteenth-century Quebec industry was labour-intensive and Ontario's capital-intensive was that Ontario preceded Quebec in making the transition to life-cycle saving. This would have created a larger pool of local savings in Ontario and therefore led to greater generation of local capital. Naturally, the answer to this and other historical conjectures requires further empirical study of the determinants of individual wealth-holding in Quebec and Ontario and of regional rates of transition to a pattern of life-cycle saving.