All Equal in the Sight of God: Religion and Wealth Inequality in the Early Twentieth

Century

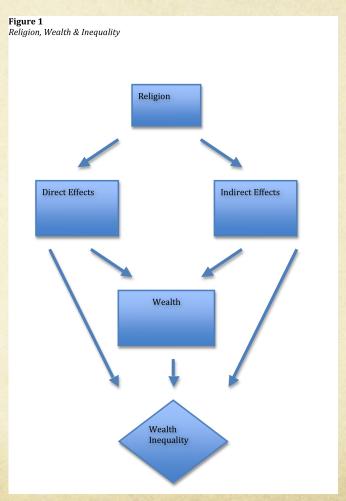
Livio Di Matteo, Department of Economics, Lakehead University, Presentation for the Meetings of the Canadian Economics Association, May 29-June 1, 2014, Vancouver, Canada.

Introduction

- Differences exist in wealth levels and growth rates across religious affiliations in late nineteenth century Ontario.
 - Religion as an "investment club"
 - O Differences in tithing, church practices
 - Anglicans the establishment church with its economic power established early on via the land grants system
 - Orange Order may have played a role in reducing economic opportunities for Roman Catholics
- Distribution of wealth by religious affiliation examined using two data sets: 1)1902 census-linked Ontario probate data examined and 2) 1901 census earnings data
- How much wealth inequality was a function of economic and demographic factors and how much can be ascribed to factors like religious affiliation?
- Religion mattered both wealth and earnings inequality differed across religious groups.

How does Religion Affect Wealth and Inequality?

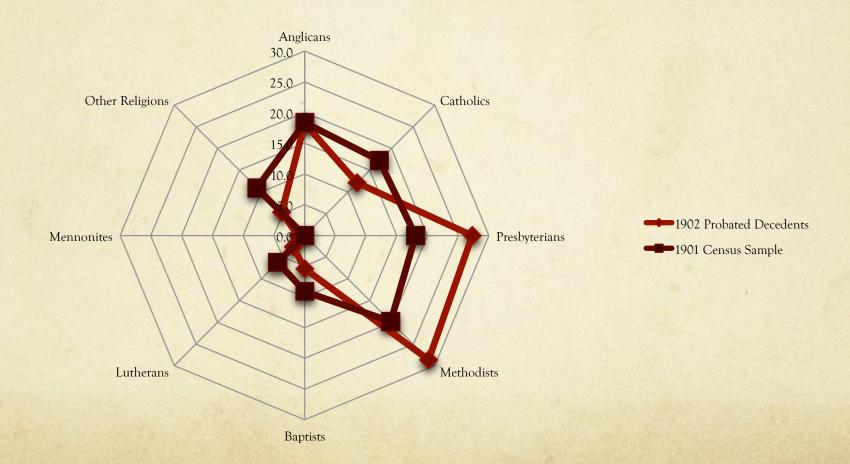
- O Keister (2003, 2008)
 - Direct effects
 - O Values and attitudes towards wealth; social networks
 - Indirect effects
 - O Differences in fertility, educational attainment. Age at marriage



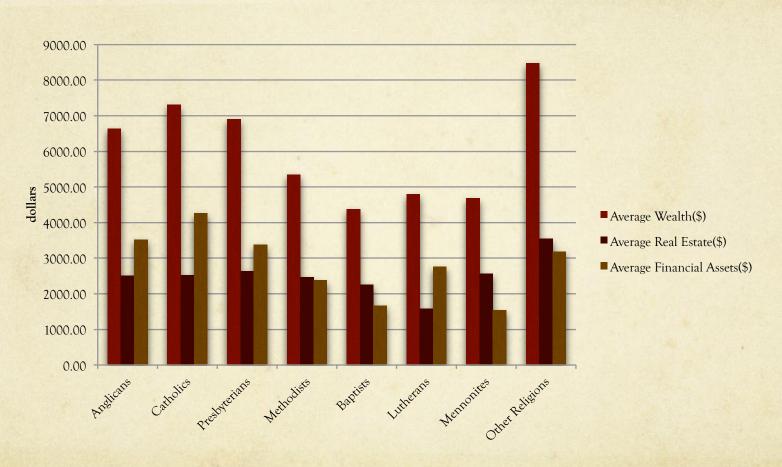
The Data

- 3,641 census-linked probated decedents from the counties and districts of Ontario, Canada for the year 1902.
 - Wealth data
- O 3,357 household heads for 17 jurisdictions across Canada collected from the 1901 Census of Canada.
 - Earnings data
- O Socio economic characteristics information including religion, age, occupation, gender, number of children

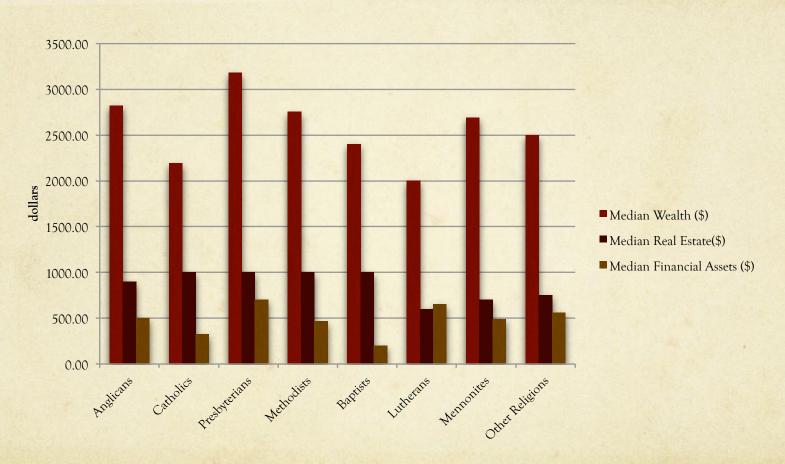
Percent Distribution by Religion



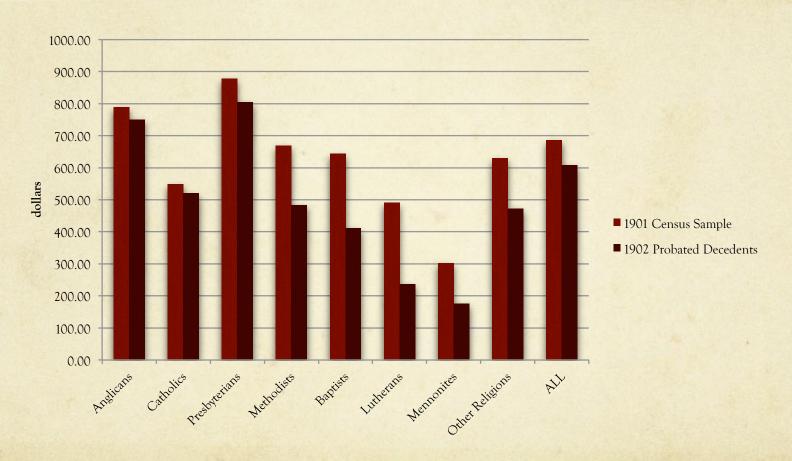
Average Wealth by Religious Affiliation



Median Wealth by Religious Affiliation

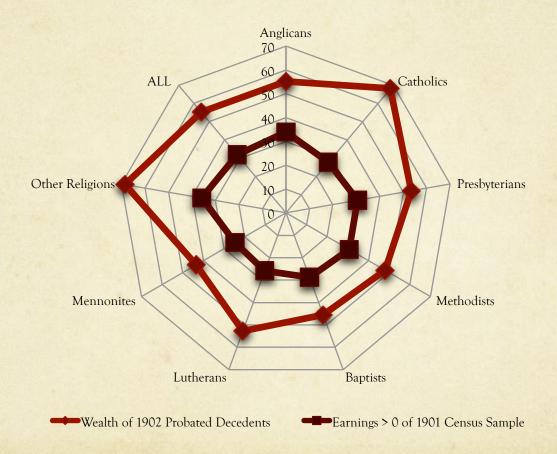


Average Total Earnings for Those Reporting Total Earnings > 0 (70% of census sample & 16% of probated decedents)

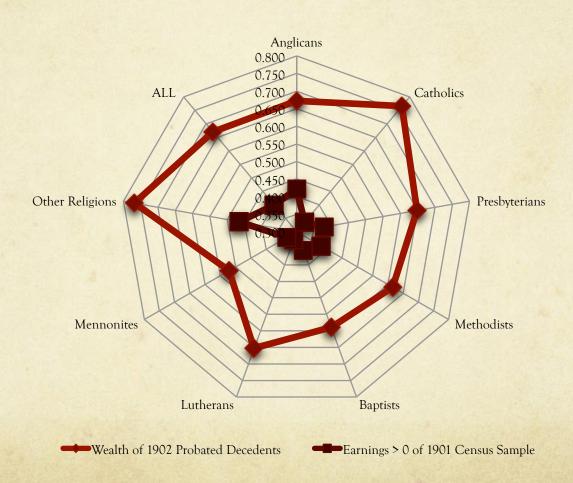


Inequality Measures

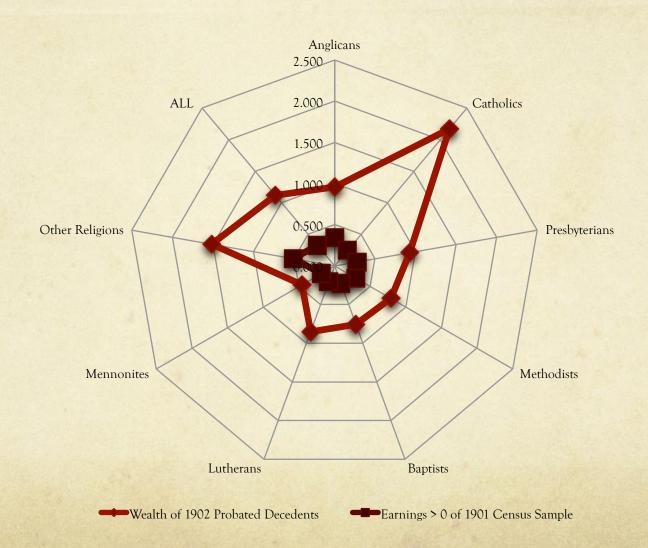
Share of Top 10%



Gini Coefficients



Theil Coefficients



Determinants of Inequality

Need to control for other factors aside from Religion

Wealth Regression

- Inverse hyperbolic sine of wealth; weighted and un-weighted OLS regressions using inverse of age-sex specific mortality rate
 - Significant determinants of wealth include age, being an urban dweller, birthplace, occupational status, literacy, region of residence and religious affiliation.
 - Wealth peaks at age 69 for the un-weighted regression and 76 years for the weighted regression.
 - With respect to religion, Catholics, Baptists, Methodists and those of All Other Religions generally have less wealth relative to Anglicans others not significantly different.
 - All other things given, relative to Anglicans, Catholics have 13 percent less wealth, Baptists from 22 to 30 percent less wealth and Methodists 25 percent less wealth.

Total Earnings Regression

- O Inverse hyperbolic sine of total earnings
 - Significant determinants of total earnings include age, gender (+), birthplace, being a farmer (-) marital status, number of children, region of residence and religion.
 - Total earnings peaked at age 39 in the non-zero total earnings regression.
 - Relative to Anglicans, all the other religious groups have significantly lower total earnings except Baptists and Presbyterians who were not significantly different.
 - After controlling for confounding factors, Roman Catholic total earnings were 18 percent below the Anglicans while Methodists were 12 percent lower, Lutherans 20 percent lower, Mennonites 76 percent lower and All Other Religions 28 percent lower.
 - As well, relative to Manitoba, total earnings in this data were generally lower in the other regions of the country.

Regressions: Assessment

- Significant determinants of wealth a factor in inequality.
- O Based on the adjusted r-square values, only a relatively small amount of the variation in wealth and total earnings is explained by the regression determinants.
- O Variation in wealth and income occurs not only across groups, but also within groups.
- Need to decompose sources of inequality

Theil Decomposition

Table 9
Inequality Arising from Within and Between Group Inequality

	Wealth		Total Earnings > 0		
	Within	Between	Within	Between	
Religion	1.106	0.013	0.306	0.016	
Age	1.081	0.038	0.248	0.074	
Gender	1.062	0.057	0.315	0.006	
Birthplace	1.038	0.081	0.316	0.006	
Occupation	1.103	0.015	0.322	0.000	

As a Percentage of Total Inequality

	Wealth	Total Earnings > 0			> 0
	Within	Between	Wi	thin	Between
Religion	98	.8 🔽	1.2	95.0	5.0
Age	96	.6 💆	3.4	77.0	23.0
Gender	94	.9 🏲	5.1	98.1	1.9
Birthplace	92	.7 🏲	7.3	98.3	1.7
Occupation	98	.6 💆	1.4	100.0	0.0

Results of Decomposition

- Most inequality is the result of within rather than across group differences.
- Q: What is the mechanism whereby within group inequality is affected?
 - A1: w.r.t earnings: Feedback effects between religion and other variables (eg. fertility, education, marriage) which affect income.
 - A2: w.r.t. wealth: Different religious denominations may have different intergenerational wealth transmission processes that affect wealth accumulation over time.

Inheritance

- O Primogeniture versus Multi-geniture
 - O Estate division can affect distribution over time
- O Nineteenth Century Ontario had own variant
 - O Impartible
 - Partible
 - O Impartible/Partible

Coding Nature of Estate Division

- An effort was made to determine the patterns of estate division for a small portion of the 1902 Ontario data by coding whether the estate division was partible, impartible or partible-impartible for ten counties accounting for 918 decedents.
- The ten counties were from the Niagara region and western Ontario. They are: Wentworth, Lincoln, Welland, Haldimand, Norfolk, Elgin, Kent, Essex, Lambton and Waterloo.

Estate Partibility and Inequality

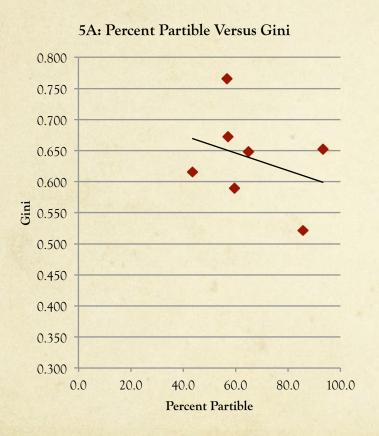
Table 10
Estate Partibility by Religion for Selected Testate Probated Decedents with Two or More Living Children, Ontario, 1902

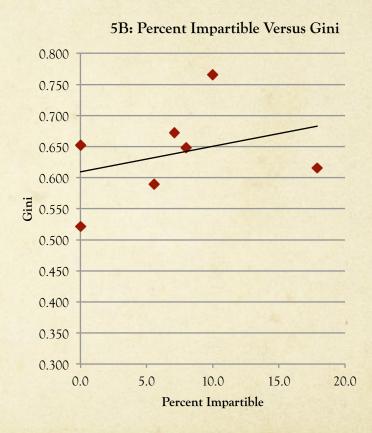
Percentage Share

	Partible	Impartible	Partible-Impartible	Other*	N	Gini
Anglicans	57.1	7.1	28.6	7.1	56	0.673
Roman Catholics	56.7	10.0	21.7	11.7	60.0	0.766
Presbyterians	64.8	8.0	13.6	13.6	88.0	0.648
Baptists	43.6	17.9	25.6	12.8	39.0	0.616
Methodists	59.5	5.6	26.2	8.7	126.0	0.589
Lutherans	93.3	0.0	3.3	3.3	30.0	0.652
Mennonites	85.7	0.0	0.0	14.3	7.0	0.521
All Other Religion	69.0	3.4	13.8	13.8	29.0	0.768
All	61.8	7.4	20.5	10.3	435.0	0.662

*Intestate, all to surviving spouse, other relatives, or not classifiable

Partibility & Inequality by Religion (Testate Decedents with 2+ children)





Regressions: Determinants of Bequest Behaviour (2+ Children)

O Results:

- males were significantly less likely to bequeath their estates partibly
- Farmers were less likely to divide their estates partibly
- o greater the size of the estate, the more likely there was partible estate division
- the number of children was positively associated with partible estate division and negatively associated with impartible estate division

Regressions: Religion and Bequest Behaviour

- After controlling for gender, employment as a farmer, wealth level, the financial asset share of wealth and the number of children:
 - Roman Catholics were significantly less likely to use partible and impartible-partible than Anglicans and significantly more likely to use impartible division.
 - O Presbyterians were significantly more likely to engage in partible estate division
 - O Baptists relative to Anglicans were more likely to be impartible
 - Lutherans and Mennonites were significantly more likely to have partible estate division

Conclusion

- Wealth was more unequally held amongst Anglicans and Roman Catholics and less unequal amongst Methodists, Baptists and Mennonites.
- Total earnings, on the other hand were more unequally distributed for Anglicans and Methodists and much less so for Mennonites and Lutherans.
- However, most of the contribution to inequality was within religious group rather than across religious group.

Final Points

- Membership in a specific religious affiliation appears to be a contributor to the wealth and income inequality in the nineteenth century but the mechanism operating within a specific religious group is unclear.
- O Differences in emphasis on inheritance partibility across religious affiliations may have affected nineteenth century wealth distribution.
- With respect to wealth, it was generally more unequal amongst Anglicans and Roman Catholics relative to Methodists, Lutherans, Mennonites and Presbyterians and these other affiliations were more likely to engage in partible type estate behaviour.