Revisiting the Life Cycle Squeeze: Differential Rates of Life Cycle Wealth Accumulation Across Deciles

Livio Di Matteo, Lakehead University,
livio.dimatteo@lakeheadu.ca

Life Cycle Squeezes

- Addressing consumption changes with limited incomes over the course of the family life cycle is referred to as the *life cycle squeeze.*

- Greatest squeeze is early in the family life cycle when the costs of setting up a household and children are incurred.

- Economic squeezes should ultimately be reflected by changes in rates of wealth accumulation.

- Does the impact of life cycle squeezes vary by wealth?

- Using census-linked probate wealth data and non-parametric techniques, wealth-age profiles are estimated across wealth deciles.

Literature

- Oppenheimer (1974, 1982) formulated the concept of the "economic squeeze" which is "the notion of economic pressures for additional income in families, aside from that provided by the husband"

- Periods of peak expense are referred to as the "early adulthood squeeze," the "middle adulthood squeeze" and the "retirement squeeze".

Empirical studies

- Di Matteo (1998), which looks at differential rates of wealth accumulation over the life cycle using nineteenth century micro-data

- Lilja and Backlund (2013a) note that findings for the period of industrialization up to 1900 are generally in accord with models of life-cycle squeezes.

- In pre-industrial Europe, life cycle squeezes have been noted for the self-employed by Schwartz (1988), Subacchi (1993 and Jutte (1994).

- Using probate inventories for three towns in Sweden in the 1820s, Lilja and Backlund (2013b) find squeezes were common before industrialization but with a life cycle squeeze more applicable to workers than master artisans.

DATA

- The data consists of 7156 census-linked probated decedents from all counties and districts of Ontario, Canada for the years 1892 (3,515) and 1902 (3,641).
- Established data set.

Methodolgy

- A division employed by Piketty (2014: 237-270) is employed which divides the decedents into the top 10%, the next 40% and finally the bottom 50% - essentially the top, middle, and bottom of the distribution.

- Non-parametric estimates of wealth-age profiles are done using Locally Weighted Scatterplot Smoothing (LOWESS).
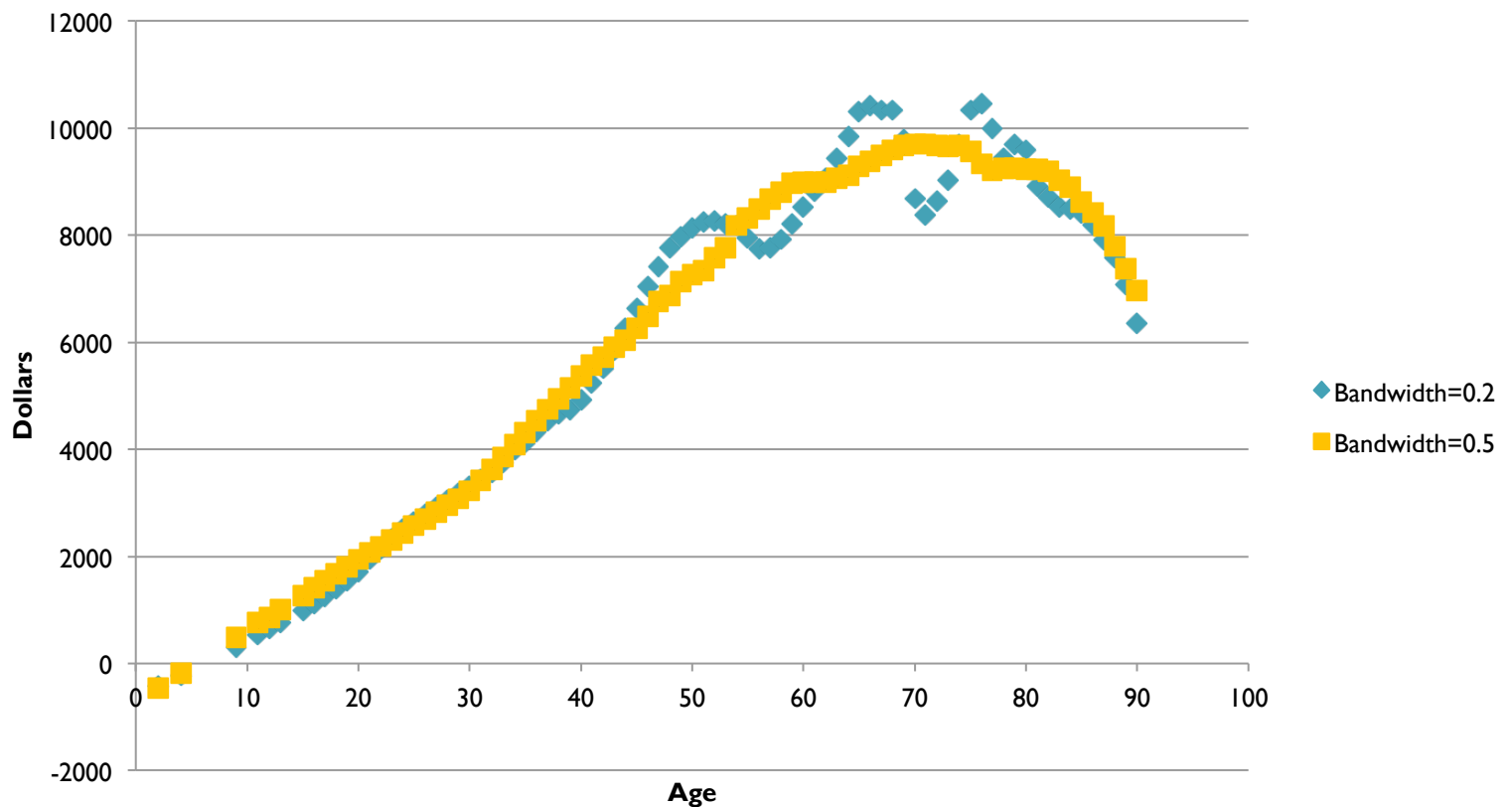
RESULTS

Wealth Age Profile-All Decedents

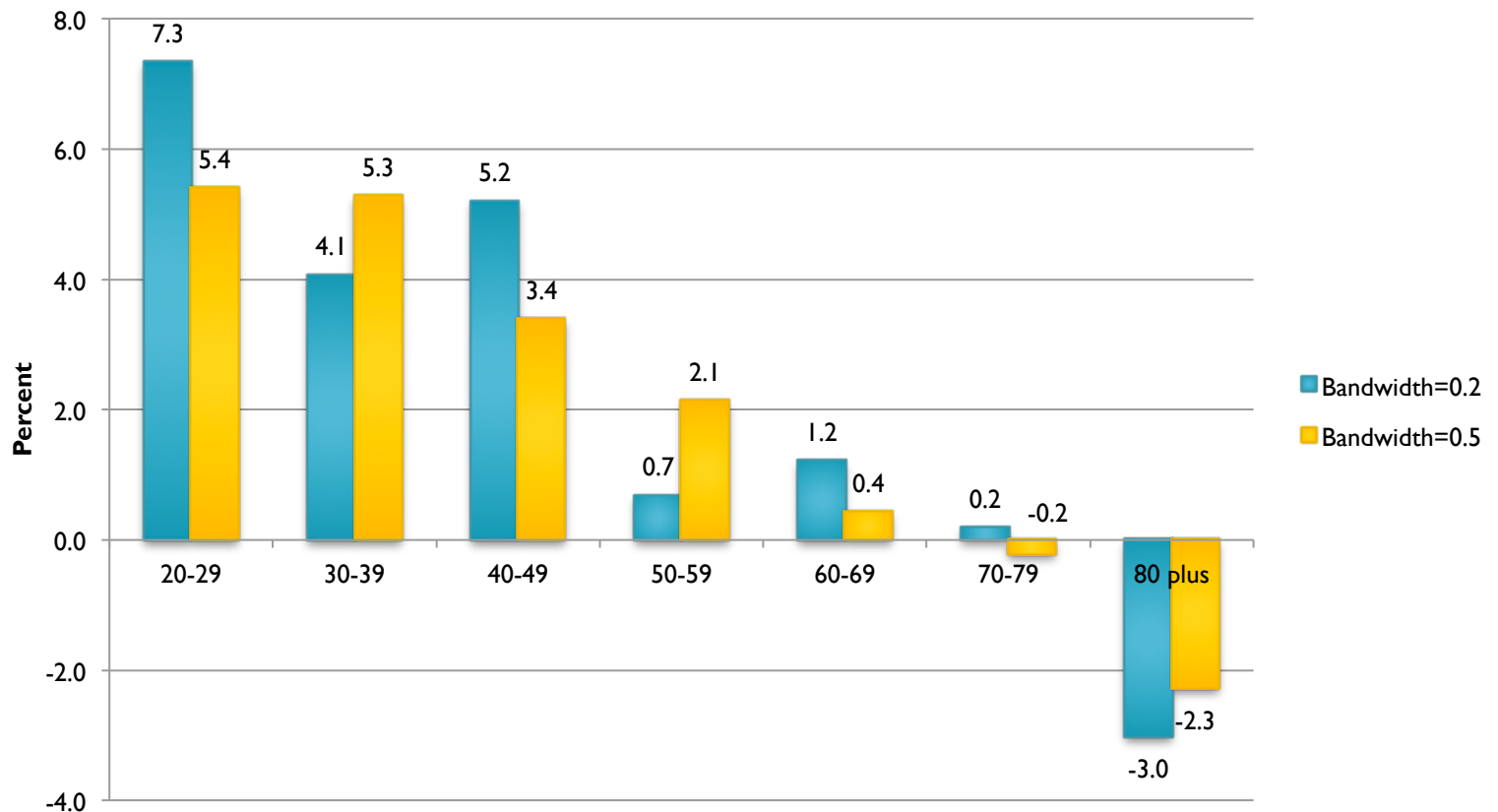Figure 1a: All Decedents, Average LOWESS Smoothed Wealth by Age
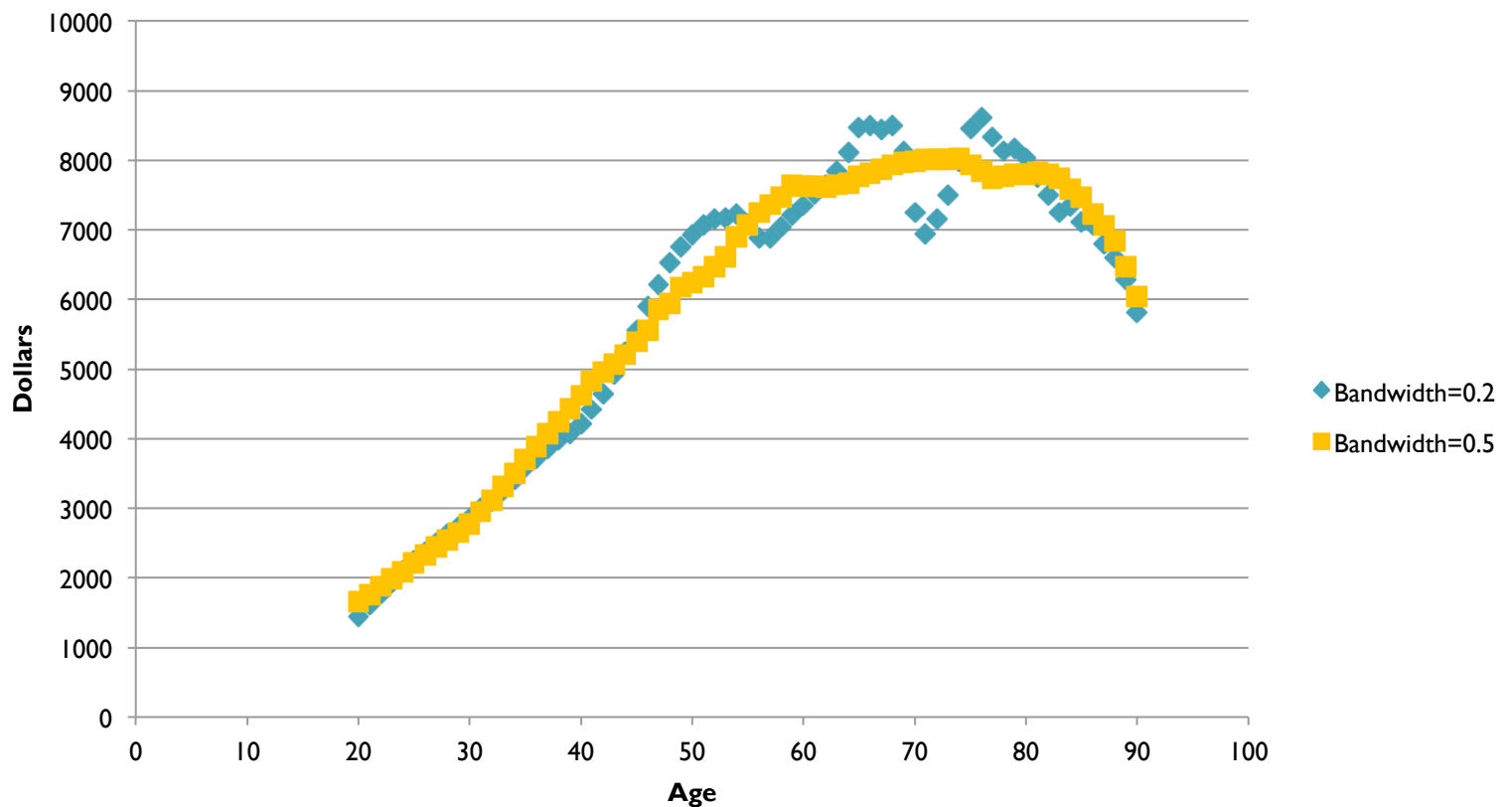
Wealth-Age Profiles-Males Only

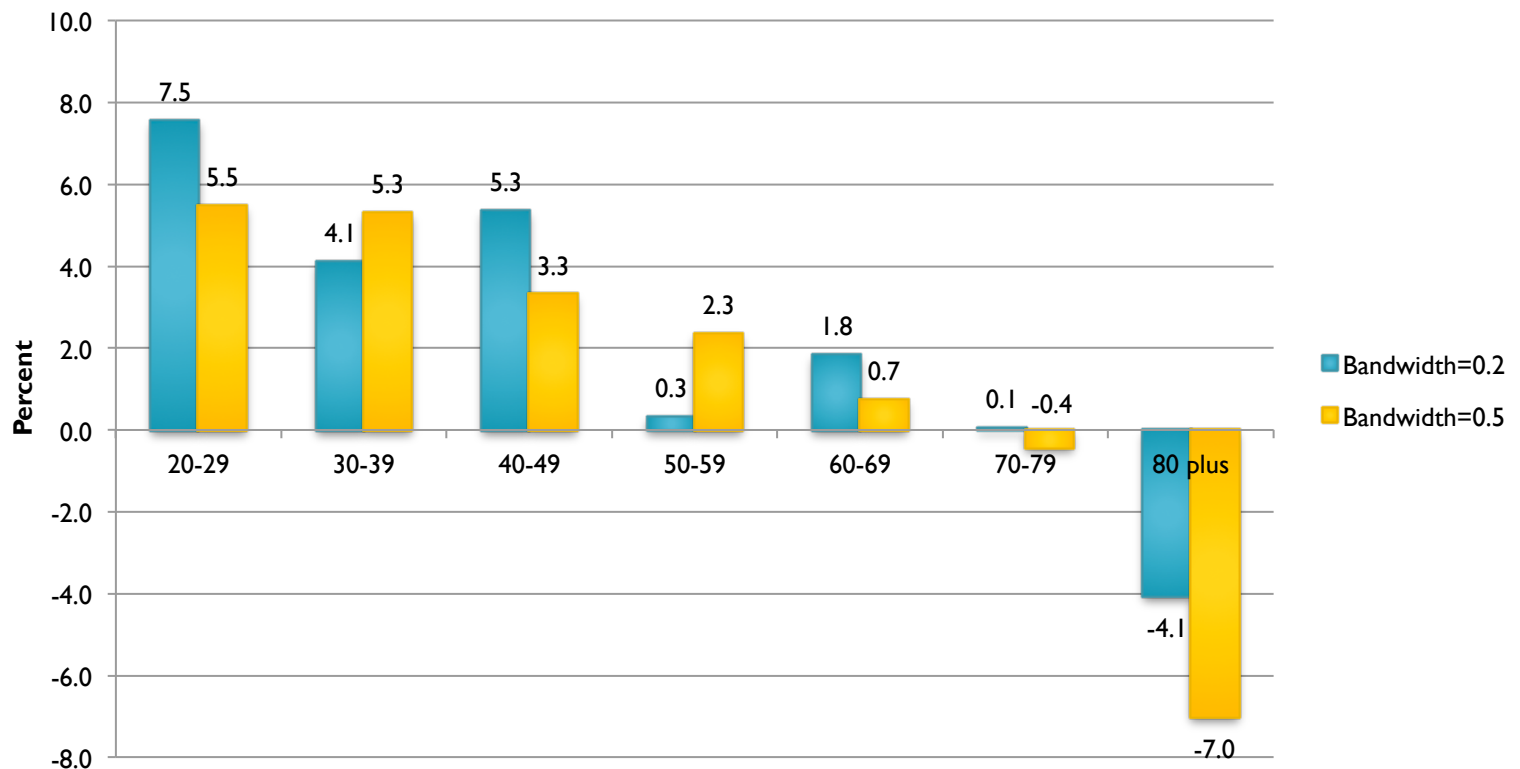Figure 1b: Male Decedents, Average LOWESS Smoothed Wealth by Age

Annual Growth Rates-All Decedents

Figure 2a: Average Annual Growth Rate (%) by Age Category of LOWESS Smoothed Wealth, All Decedents
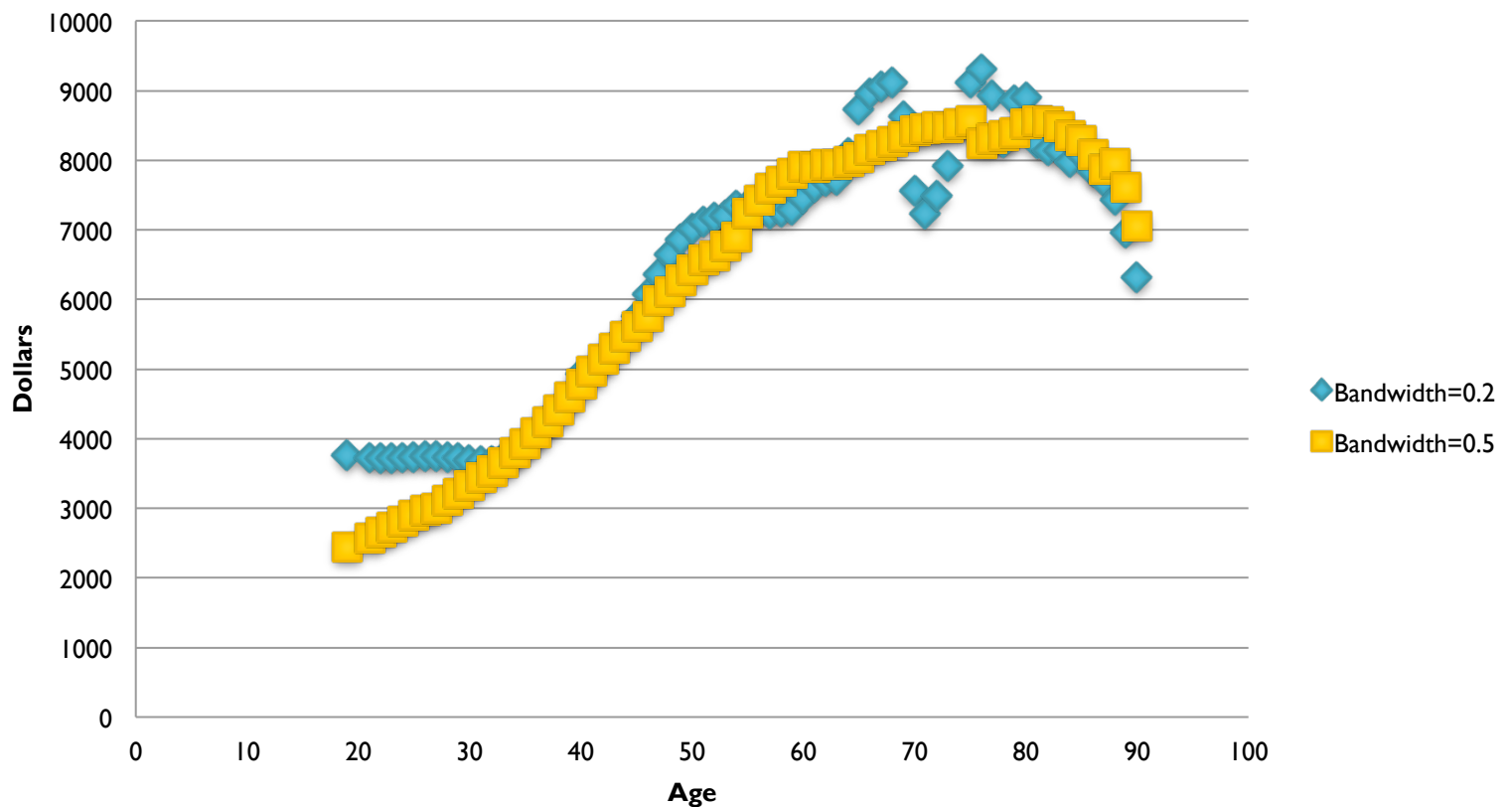
Annual Growth Rates-Males Only

Figure 2b: Average Annual Growth Rate (%) by Age Category of LOWESS Smoothed Wealth, Male Decedents
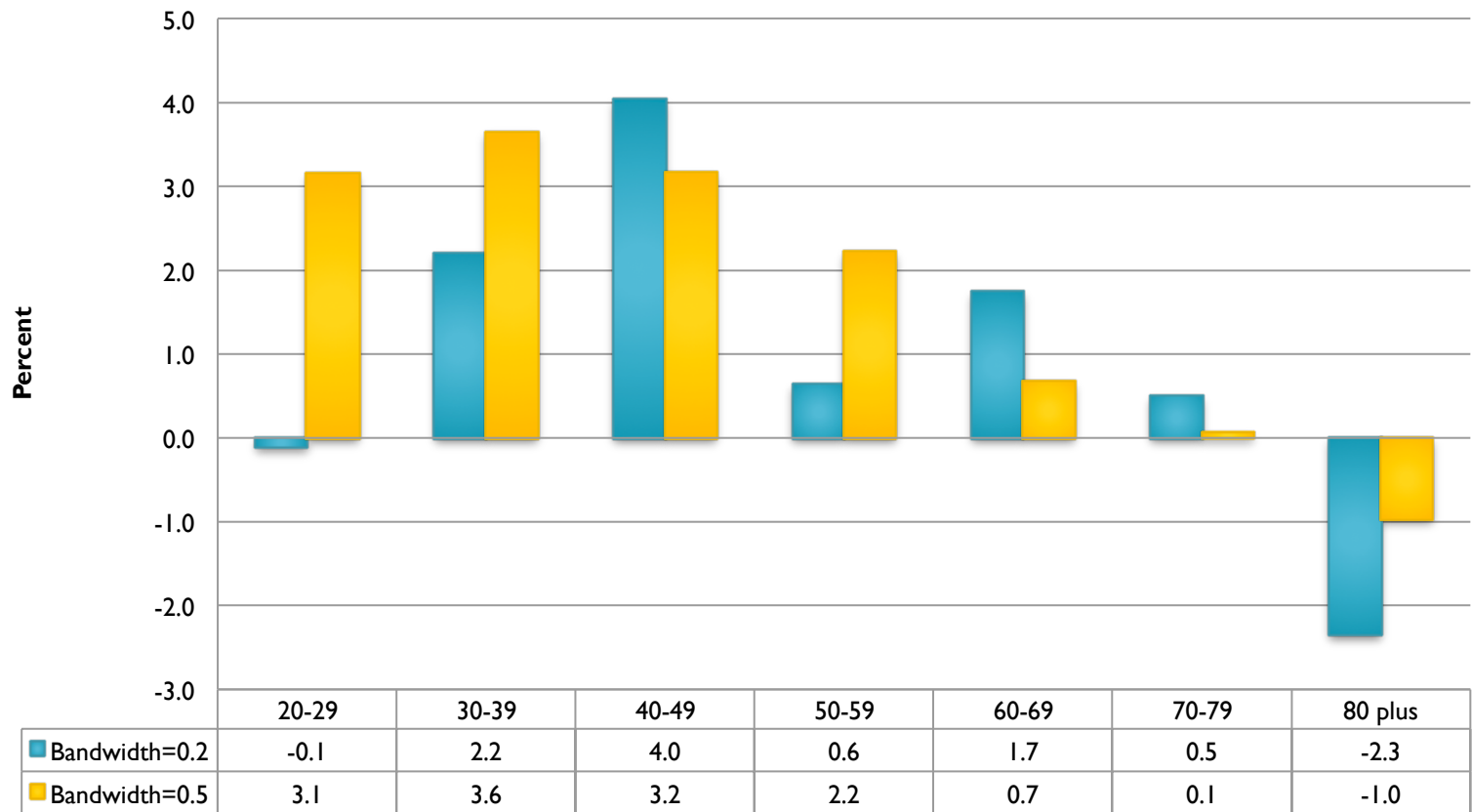
Wealth-Age Profiles: decedents with Children

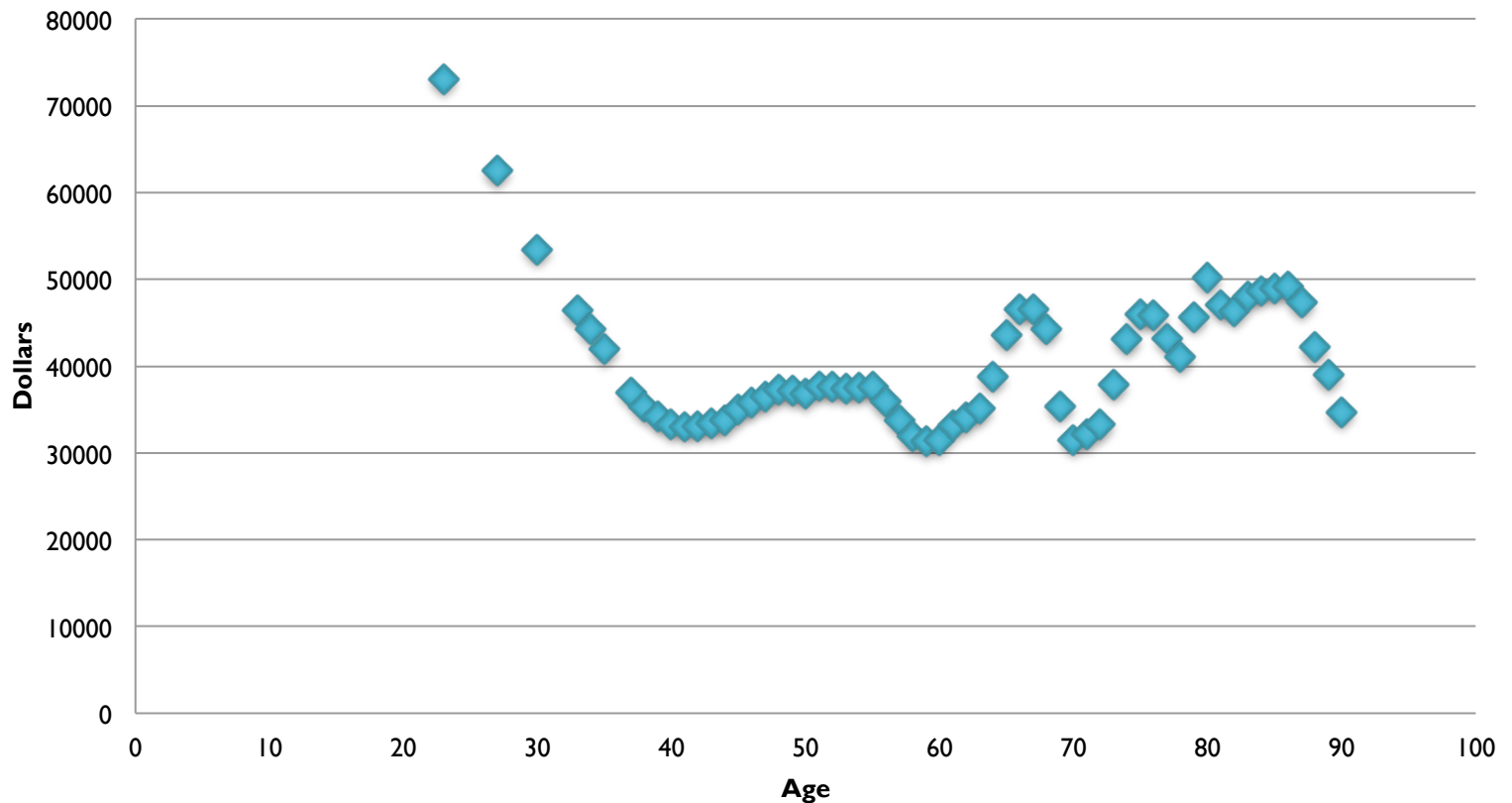Figure 3: Decedents with Children, Average LOWESS Smoothed Wealth by Age

Growth Rates: decedents with Children

Figure 4: Average Annual Growth Rate of LOWESS Smoothed Wealth, Decedents with Children

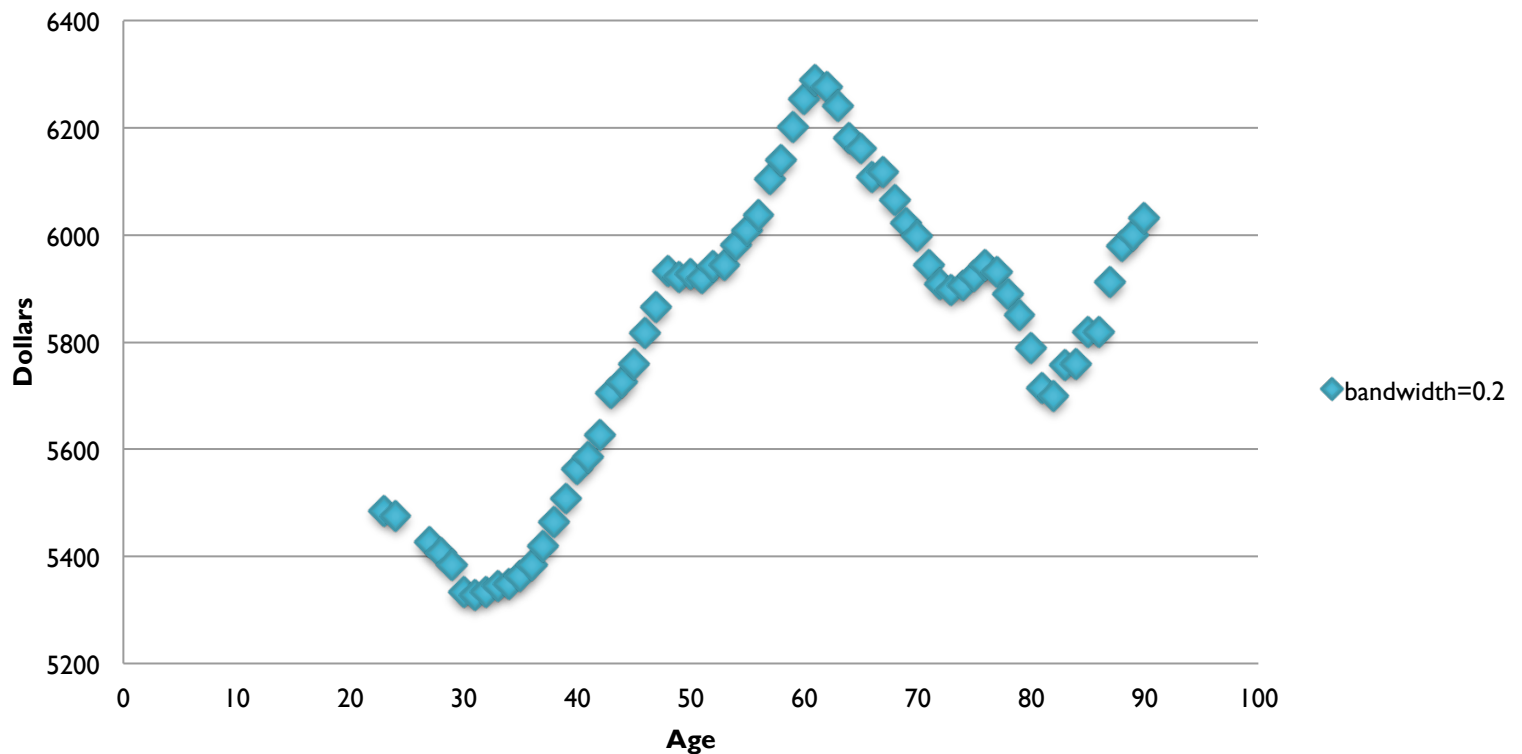|	20-29	30-39	40-49	50-59	60-69	70-79	80 plus
Bandwidth=0.2	-0.1	2.2	4.0	0.6	1.7	0.5	-2.3
Bandwidth=0.5	3.1	3.6	3.2	2.2	0.7	0.1	-1.0

Top 10%

Figure 5A: Annual Average of LOWESS Smoothed Wealth, Top 10 Percent, With Children (bandwidth=0.2)
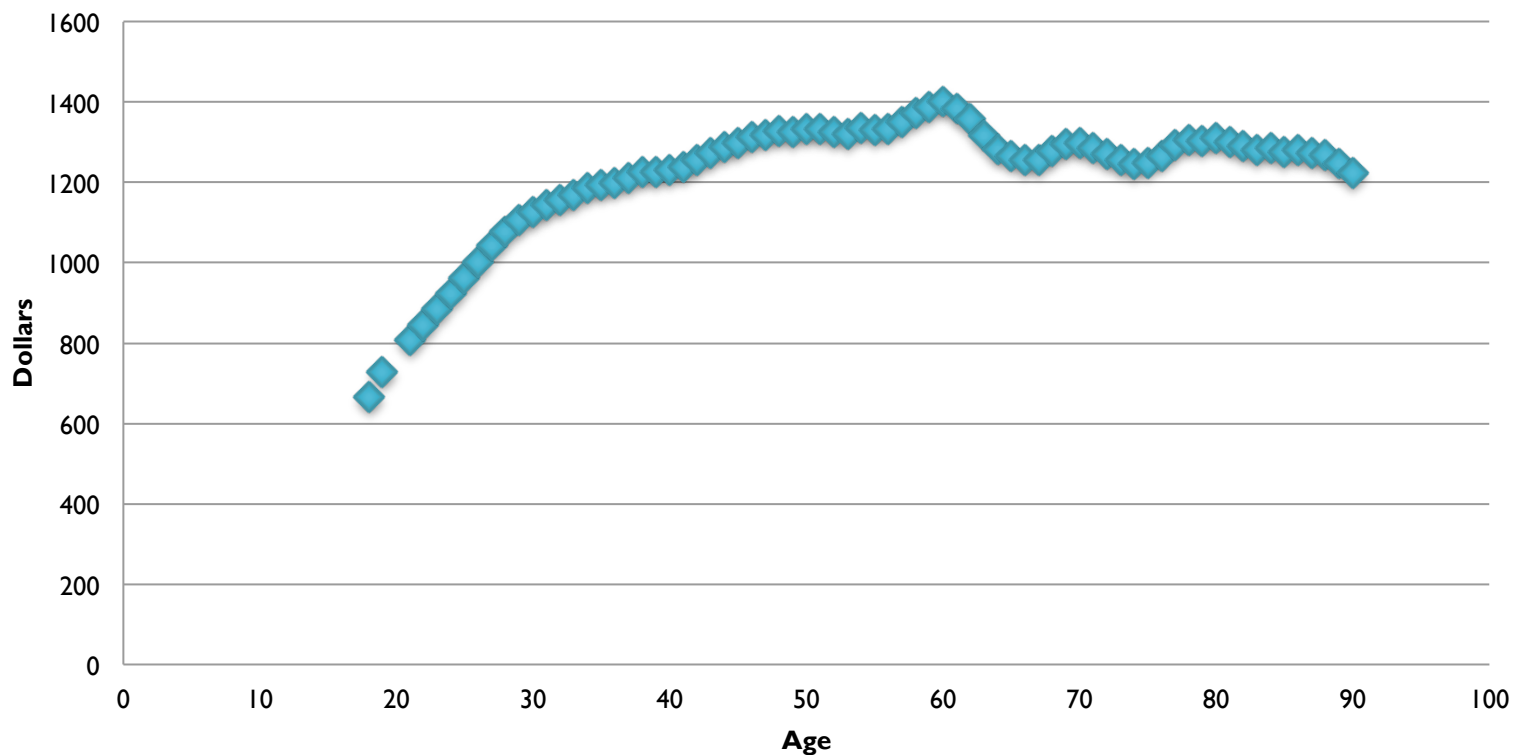
Next 40%

Figure 5B: Annual Average of LOWESS Smoothed Wealth, Next 40 Percent, With Children (bandwidth=0.2)
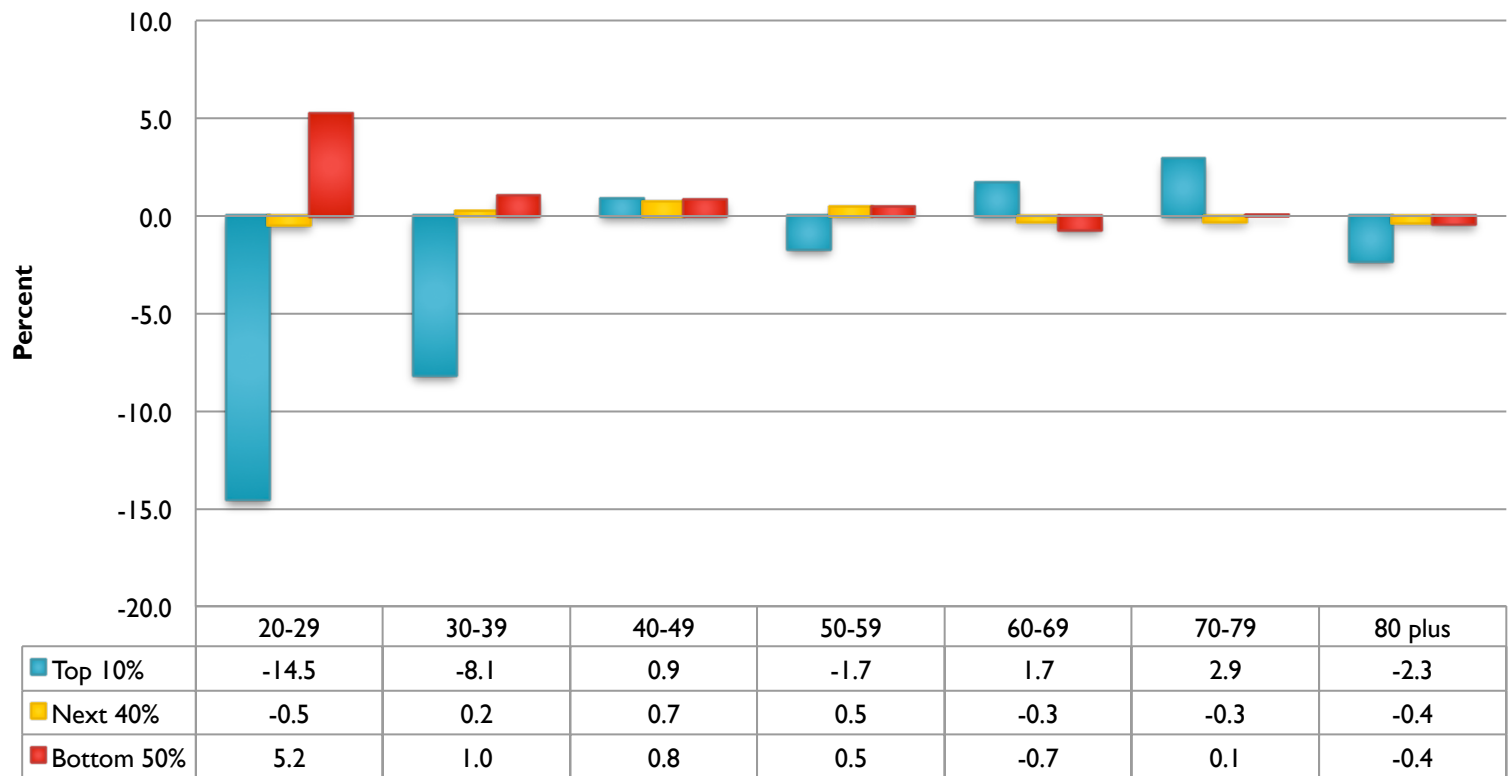
Bottom 50%

Figure 5C: Annual Average of LOWESS Smoothed Wealth, Bottom 50 Percent, With Children (bandwidth=0.2)

Growth Rates by wealth ranking

Figure 6: Annual Average Rate of Growth of LOWESS Smoothed Wealth by Age Category By Wealth Group for Decedents with Children (bandwidth=0.2)

	20-29	30-39	40-49	50-59	60-69	70-79	80 plus
Top 10%	-14.5	-8.1	0.9	-1.7	1.7	2.9	-2.3
Next 40%	-0.5	0.2	0.7	0.5	-0.3	-0.3	-0.4
Bottom 50%	5.2	1.0	0.8	0.5	-0.7	0.1	-0.4

Results

- When the wealth-age profiles are estimated by taking wealth levels into account, the results showing life-cycle type behavior over wealth are driven by behavior at the middle and lower parts of the wealth distribution but especially in the middle.

- Life cycle squeezes are also more prevalent in the middle deciles of wealth distributions than higher deciles.

Implications

- Rise of the middle class during the industrial era was an important factor in the spread of life cycle economic behavior and a factor in the growth of aggregate saving rates.

- As well, a growing middle class subject to life cycle squeezes and demographic changes in cohorts proceeding through the life cycle may have become factors in driving savings rates, economic growth as well as business cycle fluctuations.
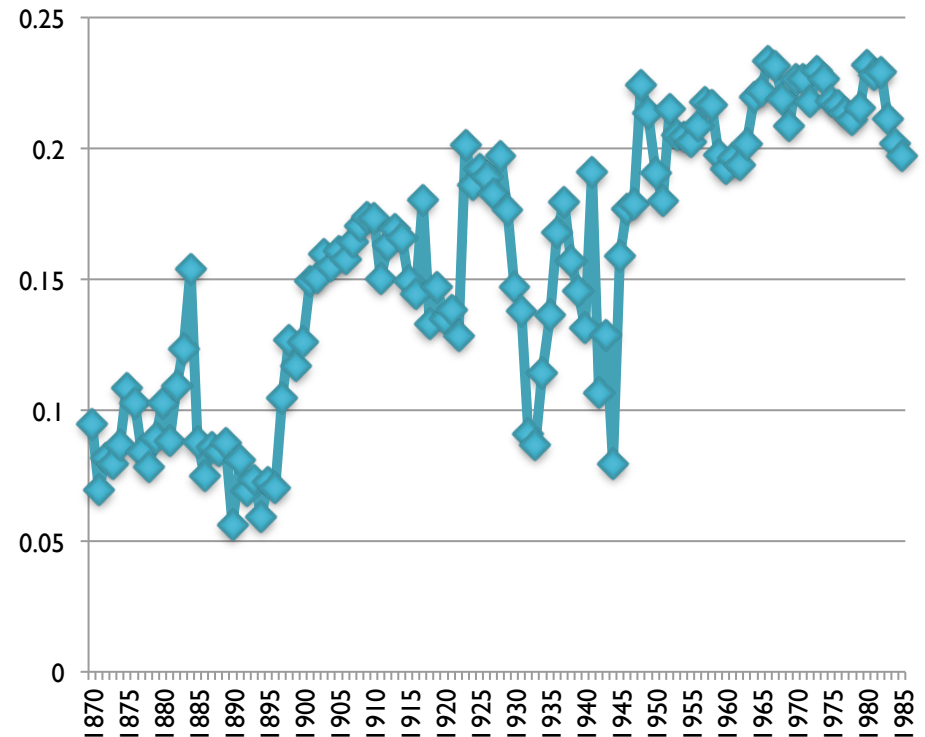
Some Canadian Evidence

- Canada 1892
  - Wentworth County: the top 10 percent owned 83 percent of wealth, the next 40 percent 17 percent and the bottom 50 percent owned zero assets

- Canada 1984
  - Top 10 percent owned 52 percent of wealth, while the next 40 percent owned 43 percent of wealth and the bottom 50 percent 5 percent

Rise of Saving

- For Canada, the savings rate grows dramatically during the twentieth century accompanying the growth of the middle wealth and income classes.

Figure 7: Implied Saving to GNP Ratio, Canada 1870-1985 (Source: Urquhart (1988))

QUESTIONS