ECON 272: Economic History of North America to 1913

The Economic Condition of Women

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Outline

1. The Relative Economic Condition of Women
   - Remember Macro 101 : National Accounting
   - Altering key economic facts
2. Household Decisions and the Entry of Women in the Labor Force
3. The Economic Condition of Women's Rights (i.e. the role of institutions)
   - Labor Market Regulations and the Progressive Era
   - The Lemke Argument
   - Electoral Franchise

Bigger than the wage gap

- For some reasons, a large number of individuals concentrate on the wage gap. However, it is not the sum of what defines economic condition.
- It extends beyond this. Wages only captures *market* work. *Market* work is not the sum of all output.
- More importantly, understanding women's economic condition can yield implications reaching far beyond the mere understanding of the topic.

Marrying the Maid Reduces GDP?

- The old saying that when a rich 19th century man married his maid or his secretary, he reduced GDP is true *in accounting terms*. However, it is not true in output terms. There is still output being produced.
- In terms of pure microeconomics, marriage is a merger. Two units that can specialize and produce if they trade. The "economics of marriage" states simply that the principle of division of labour applies and that gains from marriage are determined by how efficient this division is (Becker, 1973).
- By *definition*, unions (with the key condition that they can be easily dissolved if a party behave opportunistically) between individuals will *increase* output. Just not the *measured* one directly.

Adjusting National Output Figures

- Remember the definition of GDP: the total of the final **market** value of the goods and services produced in a country during a specific period of time, usually a year.
- What you produce in your home is *not* included but it is a form of output that matters to individual welfare.
- If the size of the "home" economy evolves at the same pace as the size of the formal economy, GDP works like a balance that is off by a few pounds but correctly represents movements. If not, it is both inaccurate in terms of movements and levels. This is especially problematic for estimating economic growth during *transitions*.

How big an adjustment factor?

- We can use variants on the methods to measure GDP seen in class 4 (measuring living standards and the colonial origins of divergence) to properly adjust GDP figures.
- A good example of this is Wagman and Folbre (1996) (see below) who create market output (M) and non-market output (N) which are then weighted for relative size at one point in time and then allowed to evolve.

Table 7 Average annualized growth of per capita real $M + N$, market, and household GNP

	1870–90 (%)	*1890–1910 (%)*	*1910–30 (%)*
$M + N$ GNP	2.00	1.82	0.74
Market GNP	1.70	2.20	0.68
Household GNP	3.22	0.18	1.09

Household GNP per capita estimated with unemployment rate $r = 0.04$, elasticity of substitution of hours of household work for market work $\lambda = -0.50$.
Sources: See Table 6.

How big an adjustment factor?

- In fact, over the twentieth century, hours spent at home fell (Ramey, 2009). This entails that there is a long-term trend *bias* in favor of measuring *more* growth in output than there actually was.

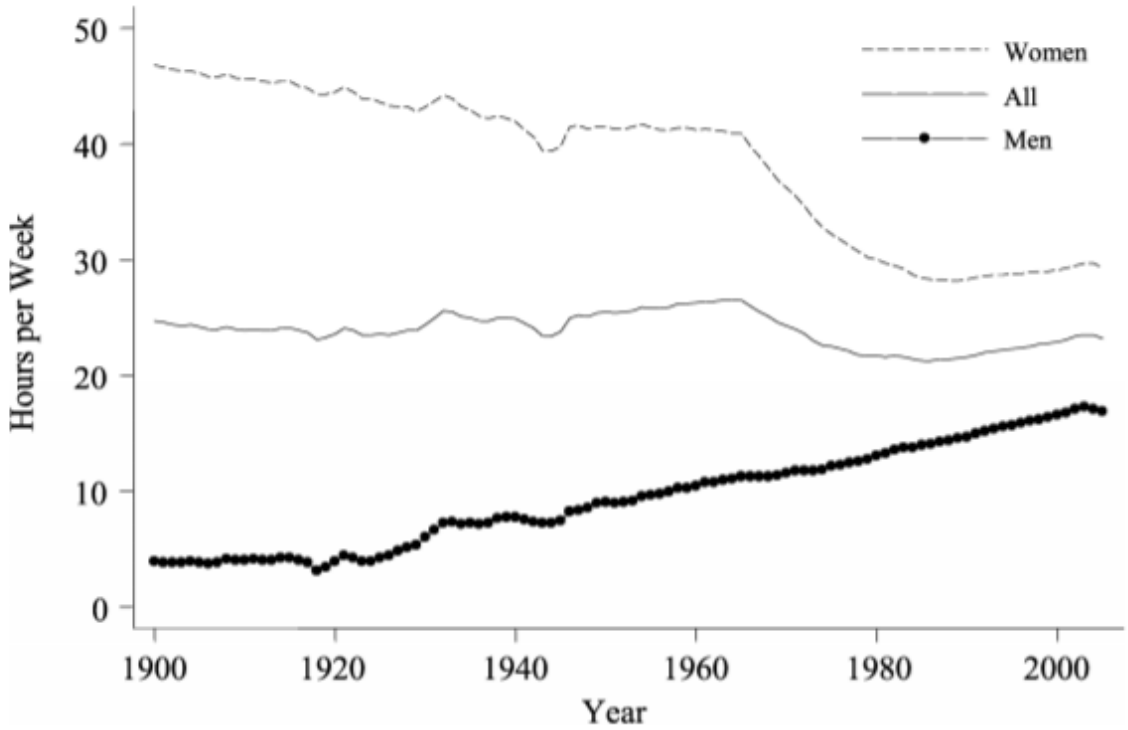


FIGURE 1
AVERAGE WEEKLY HOURS IN HOME PRODUCTION BY INDIVIDUALS AGES 18–64

Altering *key* economic facts

- Accounting for women¡s unmeasured output over time alters important facts in current economic debates. For example, Gordon (2017) has been arguing that America is in a secular stagnation. Joel Mokyr (Mokyr et al., 2015) has pushed back saying that there is a lot GDP doesnt count.

Table 1. Anatomy of the Growth Slowdown in the Total U.S. Economy (percent change at annual rate)

	1920-1970	1970-2006	2006-2016	Change (1)-(2)	Change (2)-(3)
	(1)	(2)	(3)	(4)	(5)
Output	**3.71**	**3.17**	**1.35**	**-0.54**	**-1.82**
Output per Hour	**2.82**	**1.75**	**0.97**	**-1.07**	**-0.78**
Hours of Work	**0.89**	**1.42**	**0.38**	**0.53**	**-1.04**
Hours per Person	**-0.36**	**0.00**	**-0.62**	**0.36**	**-0.62**
Population aged 16+	**1.25**	**1.42**	**1.00**	**0.17**	**-0.42**
Addendum: Output per Person	**2.46**	**1.75**	**0.35**	**-0.71**	**-1.40**

Source: Data for 1920, 1970, and 2006 are based on annual averages, while 2016 refers to 2016:Q4. Data for 1950-2016 for output is the average of Real GDP and Real GDI from the Bureau of Economic Analysis. Hours is an unpublished series on hours in the total economy obtained from the Bureau of Labor Statistics. Population aged 16+ is a published. BLS series. For 1920-50 output is BEA Real GDP linked in 1929 to Real GDP in Gordon (2012), Table A-1. Hours for 1920-48 are from Kendrick (1961), Table A-X. Population refers to the total population and is from the *Historical Statistics*, Table Aa7.

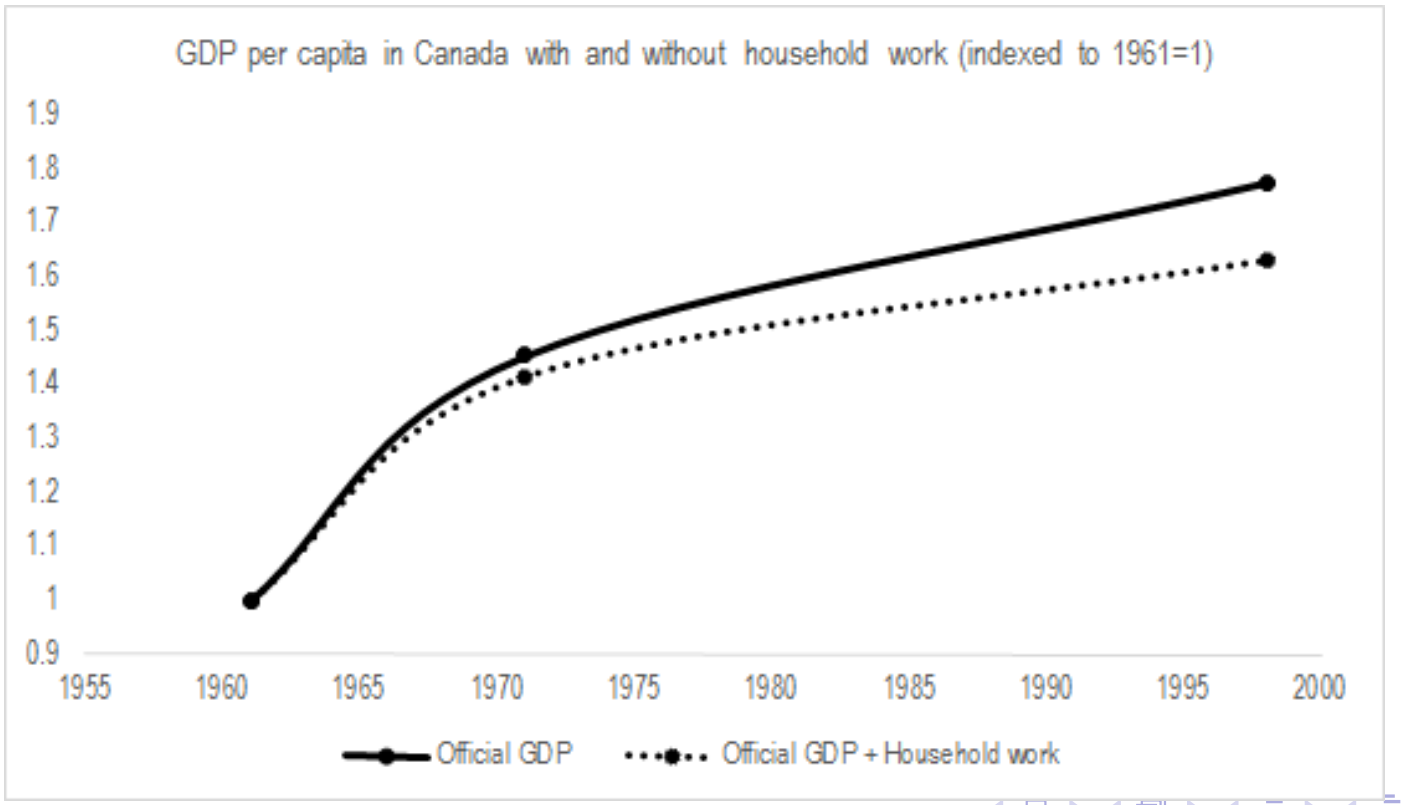
Altering *key* economic facts

Figure: The reply from Mokyr (2018) to Gordon.

sector, such as the public sector, diagnostic and preventive medicine, and on-line retail commerce. To put it differently, students of contemporary technological progress should wean themselves of TFP-fetishism; aggregate measures such as GDP (the basis for TFP calculations) were designed for a wheat-and-steel economy, not for an information and mass-customization economy in which the service economy accounts for 70–80% of value added. While GDP may still be useful for assessing short-term cyclical fluctuations, its value for an age of rapid product innovation is questionable (Coyle, 2014). What matters here is not just that TFP mismeasures the true rate of technological change (which has always been understood), but that the gap is growing over time. The very phenomenon it purports to measure increases the mismeasurement. For that reason, the TFP data that Gordon (2018) employs tell us little about the rate of innovation in the past (much less the future), whereas the narratives in his book (2016) do so in spades.

Altering *key* economic facts

- However, Mokyr assumes that all measurements issues go in one direction. But some *could* go down the direction of Gordon's position. For example, adjusting Canadian GDP statistics for market work yields a much more timid growth in output from 1963 to 1996 (work in progress of mine).

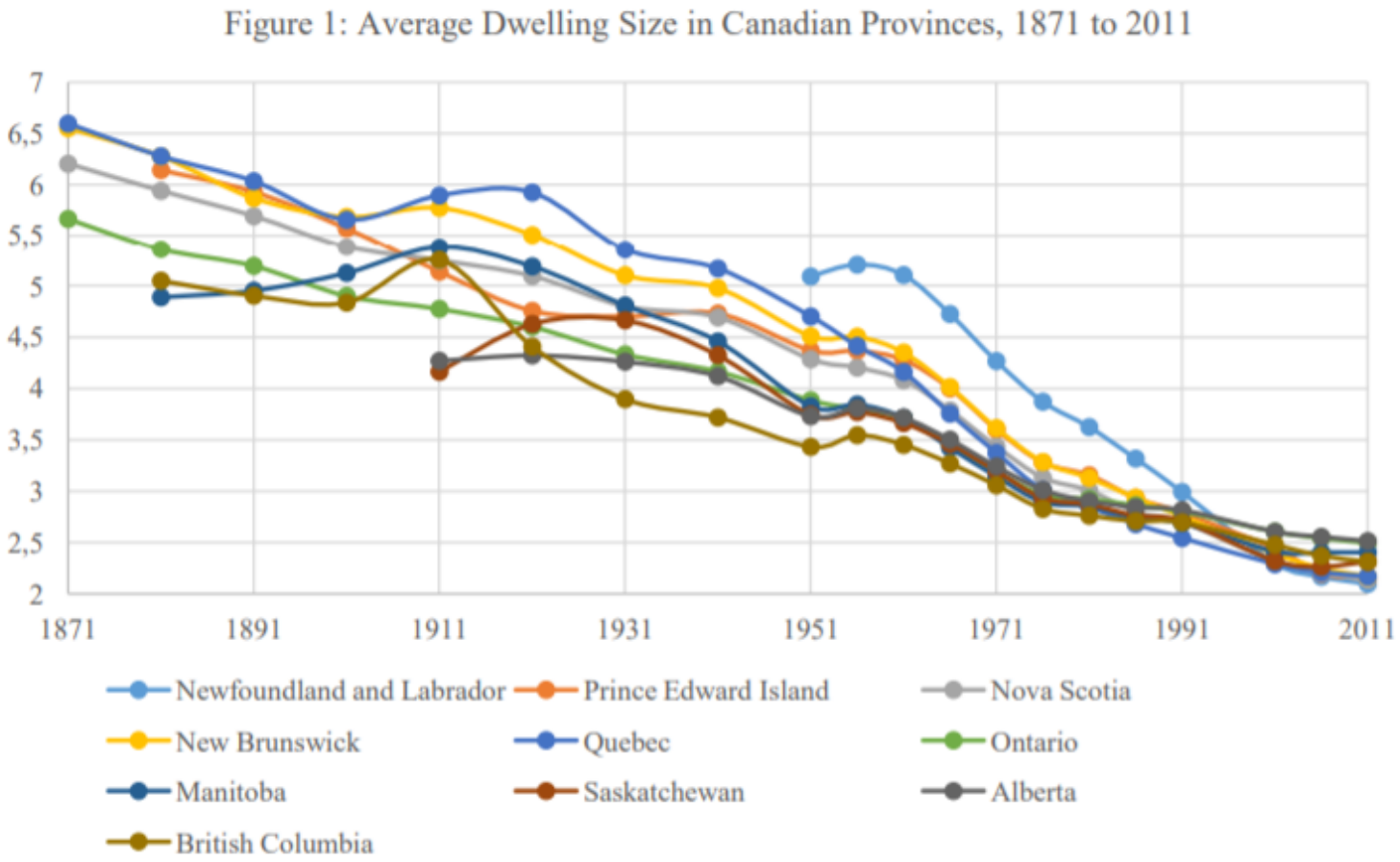


Altering *key* economic facts

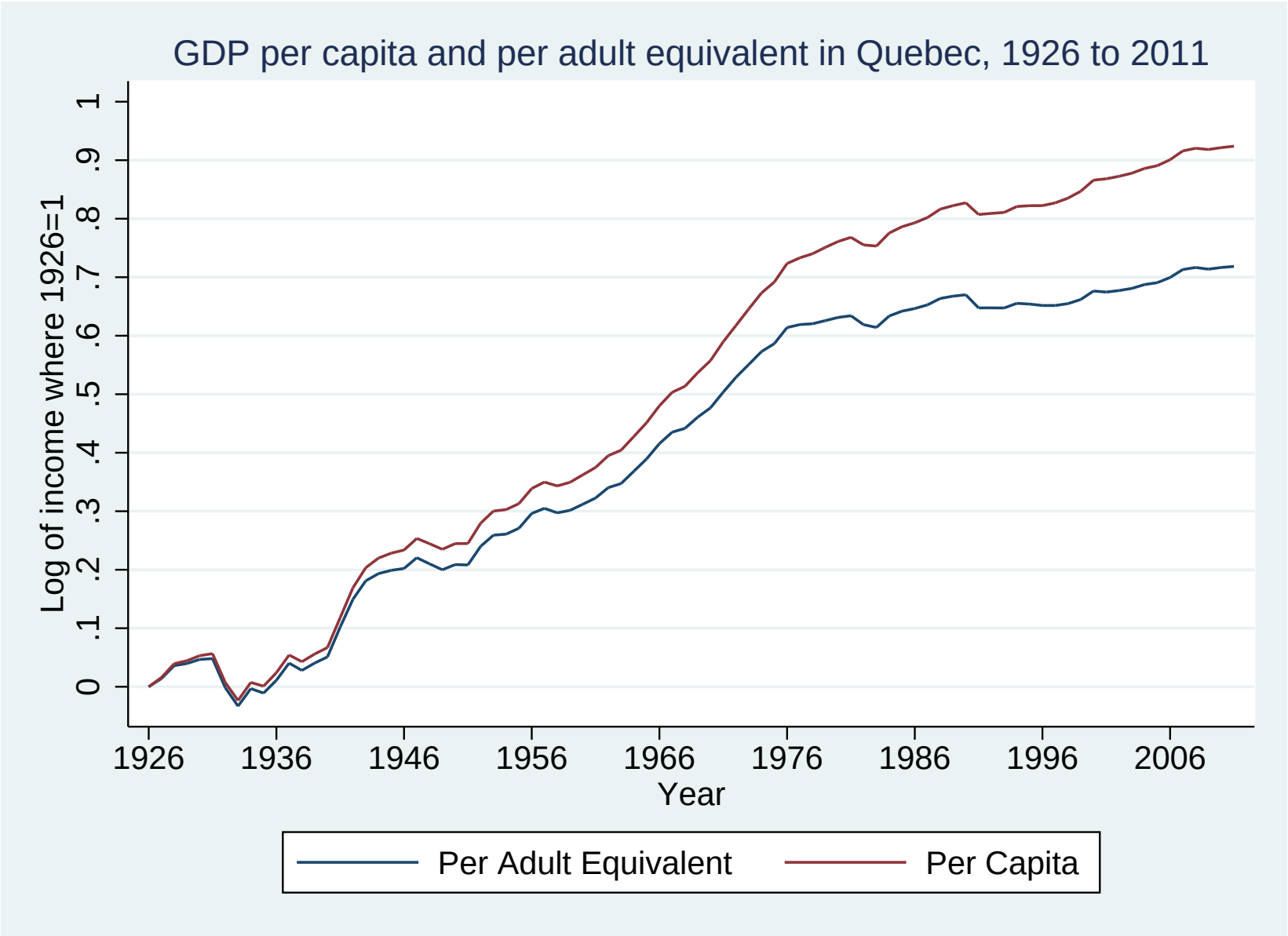
- The model of the economics of the marriage also places a certain importance on the cost of union/disunion and the returns from being single. If there is a change in the *relative* price of being single, more will be single and the average household size of the economy will change.
- Household size is *crucial* to measuring living standards over time because there are economies of scale in certain portions of expenditures (food preparation, housing, energy). This is why economists invest a lot in properly creating "equivalence scales".
- Equivalence scales permit a better tracking of *true* living standards. Making those alterations changes our understanding of 20th century economic history. For example, the *Thirty Glorious* appear much less glorious.

Altering *key* economic facts

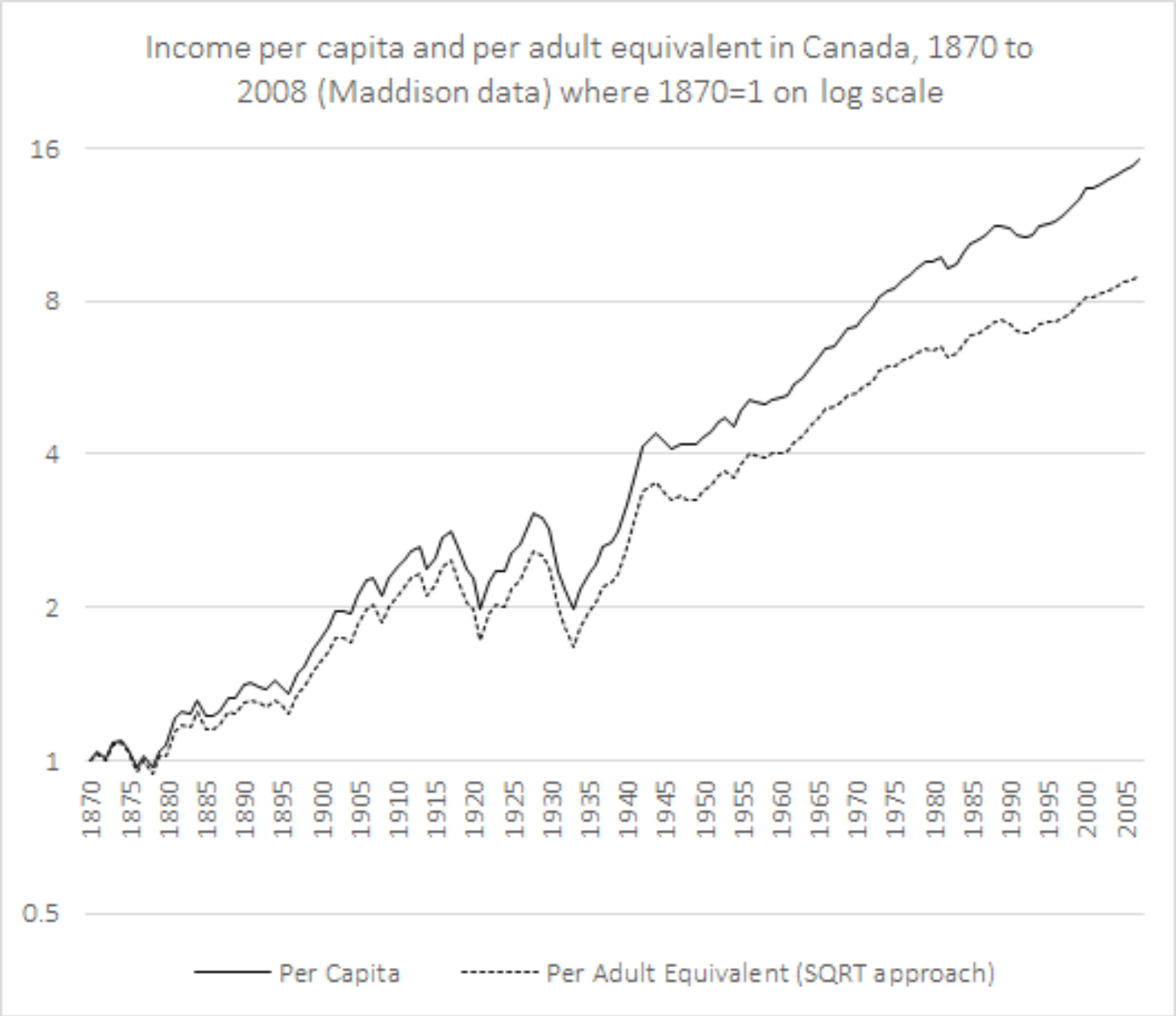
Figure: The long run decline in household size (for Canada) since 1870 (Geloso et al., 2016)



Altering *key* economic facts



Altering *key* economic facts



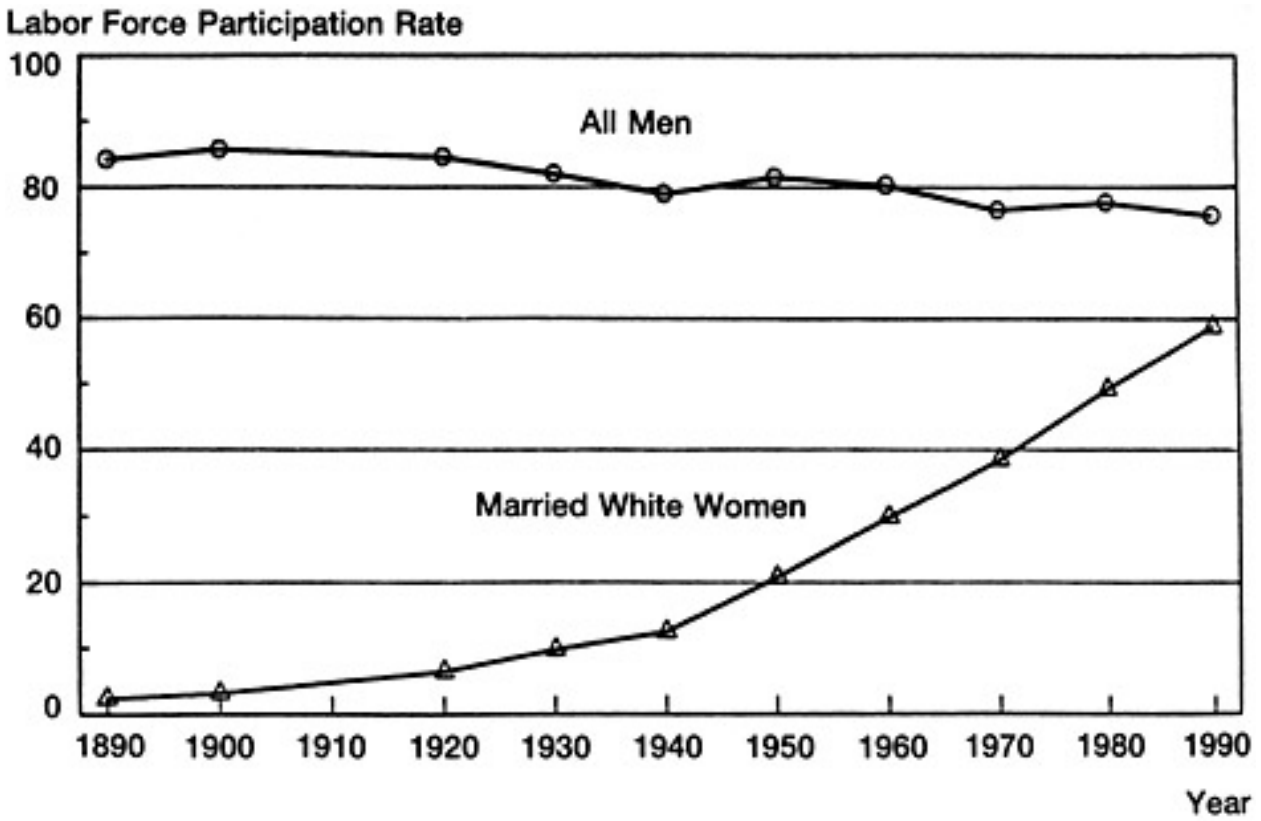
Household Decisions

Figure: A good summary of the basic model by Rotella (1980).

In an attempt to explain the phenomenon of increased female labor force participation, Mincer (1962) expanded the simple work–leisure model to include productive uses of time outside the market. Studies of married women's participation in the paid work force have generally followed Mincer's pioneering work in which the family context of work and leisure decisions is stressed. Women are seen to divide their time among leisure, market work, and home work. The total number of hours worked is determined by family income, but the distribution of work time between home and market will depend upon the individual's relative productivities in the two sectors. Increased family income will have its accustomed negative effect on market work by increasing the demand for leisure and home production (both normal goods). In this model there will be two substitution effects because an increase in the market wage increases the price of leisure time and raises the value of market work relative to home work. Both will tend to increase the amount of time devoted to market work as wages rise. Mincer found that the positive effect of increased women's wage was more powerful than the negative effect of increased family income, thereby providing a plausible explanation for the observed increase in women's labor force participation.

Household Decisions

Figure: Women labor force participation according to Goldin (1992)



Household Decisions

- Fully 75 percent of the white female labor force in 1890 and 1900 were single; fewer than 10 percent were married. But by the late 1920s married women comprised over 25 percent of the female work force. (Goldin, 1980).
- Between about 1820 and 1850, the era known as the industrial revolution in America, the ratio of female to male full-time earnings rose from about 0.3, its level in the agricultural economy, to about 0.5 in manufacturing. From about 1900 to 1930, when the clerical and sales sectors began their rise, the ratio of female to male earnings rose from 0.46 to 0.56 (Goldin, 1992).

Household Decisions

- Some of it is pretty straightforward in terms of explanation: the rise of capital-intensive industries alters the *relative* return to brute force (e.g. the rise of clerical employment) (Rotella, 1979, 1981).
- Some reduction in the cost of a fixed quantity of house work (e.g. notably due to running water) (Cardia et al., 2008).
- However, not all technological changes cut in the same direction before 1914. For example, some technologies can actually *increase* house work: The structural changes that took place over the century, however, seem to have induced farm workers to substitute out of leisure and other household or non-market activities and into (marketable) agricultural production (Craig and Weiss, 1993, 2000).
- Some changes in relative prices can be ambiguous in terms of net effects (see next slide with my oral explanations - see also the work of Burnette (2015).).

Household Decisions

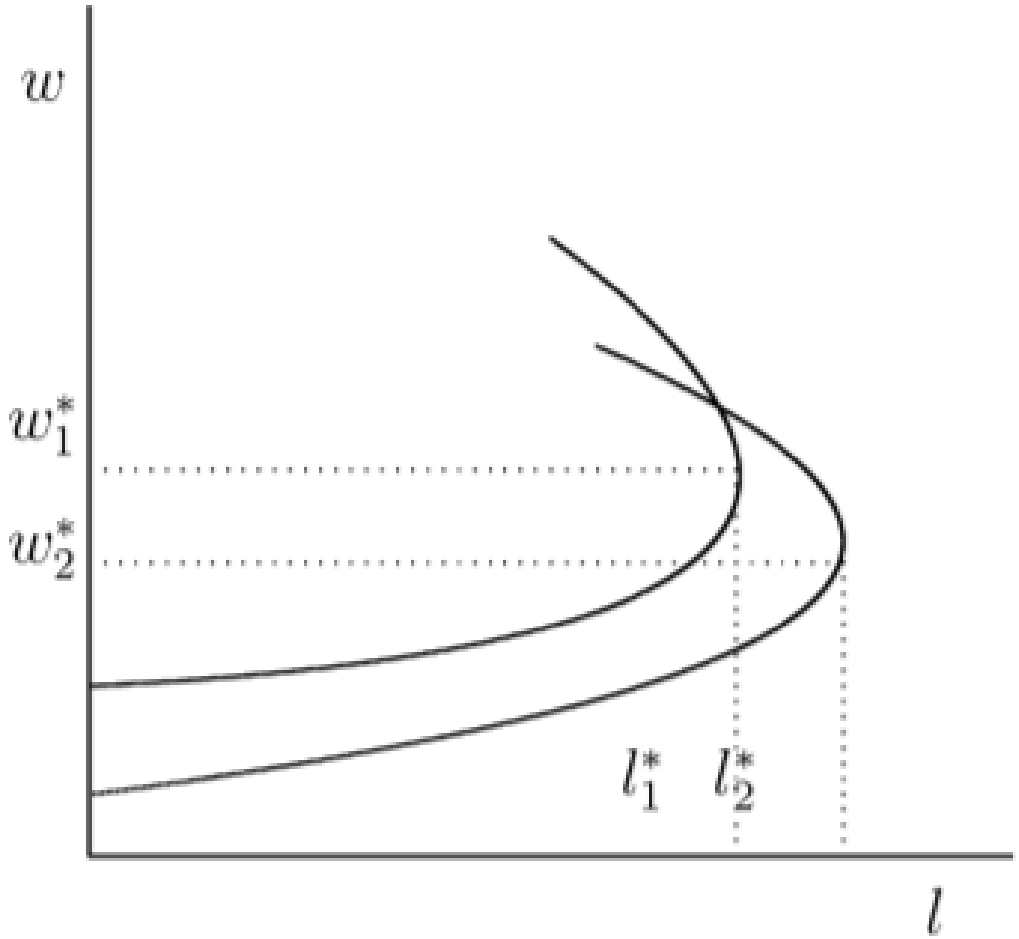


Fig. 4. A fall in non-subsistence income M causes an increase in l and a fall in w^*.

Labor Market Regulations and the Progressive Eras

- Remember theme 4 as well as theme 9 (antitrust): regulations and institutions can be captured by given rent-seeking interest groups in ways that redistribute income from one party to another. This applies to women's economic status as well.
- For example, Leonard (2005) highlights a great many examples of progressive-era legislation that were ideologically motivated on discouraging women from working.
- Another example was the differential, gender-based, minimum wage. Some states passed minimum wages specific to gender and the statutory rate was superior as a share of median/average wages for women than it was for men. For example, in Quebec, minimum wages for women was equal to 41% of the median women wage in manufacturing as opposed to 29% for the median men in manufacturing.

An example of gender-specific minimum wages

FIRST REPORT OF WOMEN'S MINIMUM WAGE COMMISSION OF QUEBEC

THE first annual report of the Women's Minimum Wage Commission of the Province of Quebec forms part of the General Report of the Minister of Public Works and Labour. The report details the activities of this body during the year ending June 30, 1927. The Commission is composed of Messrs. Gus Francq, chairman; E. Richard, C. J. Griffin, O. Brunet and A. Crowe, secretary.

Cost of Living.—After its own organization, the Commission prepared an estimate of a workwoman's living expenses. A questionnaire was drawn up for this purpose, and sent to the workwomen's organizations, leagues, female professional associations as well as to individual workwomen in various industries. A number of replies were received, indicating a minimum weekly living cost of $10.85 and a maximum of $19.81. Although there was this marked difference existing in the estimates submitted, it was considered to be more apparent than real, for the estimated cost of board, cost of clothing and maintenance were found to be nearly the same, the divergencies in views being principally in fictitious costs and incidentals. This factor enabled the Commission to realize that the workwoman's cost of living is generally higher in large industrial centres than in small ones. It also helped to establish a standard estimate after a public conference with the representatives of the organizations, which had replied to the questionnaire, assisted by experts in the subject, at which the various estimates were minutely scrutinized and discussed.

The standard estimate applies to a workwoman living in the City of Montreal, this habitants or over, outside of the first group; the third composed of the rest of the Province. It was however decided that for certain industries or particular cases, the third group could be subdivided or combined with the second.

Division of Industries by Groups.—As wages and working conditions vary not only by locality, but also from one industry to another —by reason of a longer apprenticeship, harder or more exhausting work, etc.—the Commission thought it wise to subdivide the industries into various groups as follows:

1. Laundries, dyeing and dry cleaning establishments.

2. Food: comprising confectionery, chocolate, biscuit and canning factories (except those in which the work is only for a season) in all their branches.

3. Bookmaking industry: including printing in all its branches.

4. Paper making: including manufactures of cardboard boxes, paper bags, stationery and other establishments making paper or paper products.

5. Textile factories in all their branches and operations.

6. Needle trade: including tailoring, clothing, linen, millinery, fur, tents, flags, etc., workshops, in all their branches.

7. Shoe factories and other leather trades as well as rubber factories, in all their branches.

8. Tobacco, cigar and cigarette factories, in all their branches.

The Lemke Argument

- Lemke (2016) provides a rich explanation of the economics of women's emancipation. Many of the existing theories simply assign the changes to changes in ideology. But remember from theme 2, changes in preferences are *not* economics. Lemke proposes an economic explanation based on choices, incentives and constraints!
- Once married, pre-1900 women in America were heavily restricted in their property rights. Main margin for choice was to get married or not *or* where to get married. If there is competition to *attract* women to get married in a district because if offers greater returns, then there might be a virtuous cycle of improvement.
- If policy-makers can harness part of the returns from attracting people, then they have incentives to improve policy. It also imposes pressures on the districts being abandoned.
- Lemke's argument is a pure application of the economics of federalism (Tiebout, 1956; Buchanan and Faith, 1987; Weingast, 1995).

Electoral Franchise

- Lemke's argument is particularly interesting as well because the geographic patterns she finds for the property rights acts match the pattern of electoral emancipation.
- However, some of the motivations for emancipation were not that great either. In some states, it had to do with the perceived threat of large immigrant populations (in which women voted less) : "To the extent that native males believed that the political preferences of native women were better aligned with theirs than new (primarily male) immigrants, male voters would be willing to grant women voting rights to secure their social and political status." (Wong et al., 2018).
- However, what is clear is that women were granted the right to vote, there were massive institutional changes (Lott and Kenny, 1999; Miller, 2008; Carruthers and Wanamaker, 2015) notably on the size and type of government spending.

Electoral Franchise

- A change in the median voter changes the politician's winning coaliation strategy. It changes the actions he poses.
- Public choice theory puts a large emphasis on median voters. Adding a large bloc of different voters moves the median.
- Women tended (with some exceptions in Canada) to be more progressive in terms of social spending and labor market regulations, more anti-immigration (although this particular point is not clear) and more favorable to different types of public goods (e.g. lighthouses versus clean water). Introducing them in the voting population changes the median view on all these issues.

Electoral Franchise

FIG. 2.—Effect of giving women the right to vote on per capita state government expenditures and revenue. The horizontal axis shows the years before and after women were given the right to vote in different states: year 0 is the first year in which women were allowed to vote in different states.

Electoral Franchise

- However, and this is a personal comment of mine that is meant to point to future research possible, this misses a key point.
- If politicians altered the median voter, some other marginal voter must have been abandoned. Thus, important research could be accomplished to see what was "reduced" after after electoral emancipation. Since constraints always exist, something must have given when some changes were enacted.
- A fictional example: women's suffrage could have increased spending on health care (thus reducing infant mortality rates) but reduced spending on workmen's occupational fatalities and accidents (thus increasing workplace fatalities and accidents). Trade-offs are everywhere. The point of economics is to study them.

Becker, G. S. (1973). A theory of marriage: Part i. *Journal of Political economy*, 81(4):813–846.

Buchanan, J. M. and Faith, R. L. (1987). Secession and the limits of taxation: Toward a theory of internal exit. *The American Economic Review*, 77(5):1023–1031.

Burnette, J. (2015). The paradox of progress: the emergence of wage discrimination in us manufacturing. *European Review of Economic History*, 19(2):128–148.

Cardia, E. et al. (2008). Household technology: was it the engine of liberation? In *2008 Meeting Papers*, number 826. Society for Economic Dynamics.

Carruthers, C. K. and Wanamaker, M. H. (2015). Municipal housekeeping the impact of womenâĂŹs suffrage on public education. *Journal of Human Resources*, 50(4):837–872.

Craig, L. A. and Weiss, T. (1993). Agricultural productivity growth during the decade of the civil war. *The Journal of Economic History*, 53(3):527–548.

Craig, L. A. and Weiss, T. (2000). Hours at work and total factor productivity growth in nineteenth-century us agriculture. In *new*

Frontiers in Agricultural history, pages 1–30. Emerald Group Publishing Limited.

Geloso, V., Kufenko, V., and Prettner, K. (2016). Demographic change and regional convergence in canada". *Economics Bulletin*, 36(4):1904–1910.

Goldin, C. (1980). The work and wages of single women, 1870 to 1920. *The Journal of Economic History*, 40(1):81–88.

Goldin, C. (1992). Understanding the gender gap: An economic history of american women. *OUP Catalogue*.

Gordon, R. J. (2017). *The rise and fall of American growth: The US standard of living since the civil war*, volume 70. Princeton University Press.

Lemke, J. S. (2016). Interjurisdictional competition and the married womenâĂŹs property acts. *Public Choice*, 166(3-4):291–313.

Leonard, T. C. (2005). Protecting family and race: The progressive case for regulating women's work. *American Journal of Economics and Sociology*, 64(3):757–791.

Lott, Jr, J. R. and Kenny, L. W. (1999). Did women's suffrage change the size and scope of government? *Journal of political Economy*, 107(6):1163–1198.

Miller, G. (2008). Women's suffrage, political responsiveness, and child survival in american history. *The Quarterly Journal of Economics*, 123(3):1287–1327.

Mokyr, J. (2018). The past and the future of innovation: Some lessons from economic history. *Explorations in Economic History*, 69:13–26.

Mokyr, J., Vickers, C., and Ziebarth, N. L. (2015). The history of technological anxiety and the future of economic growth: Is this time different? *Journal of Economic Perspectives*, 29(3):31–50.

Ramey, V. A. (2009). Time spent in home production in the twentieth-century united states: New estimates from old data. *The Journal of Economic History*, 69(1):1–47.

Rotella, E. J. (1979). Women's labor force participation and the growth of clerical employment in the united states, 1870–1930. *The Journal of Economic History*, 39(1):331–333.

Rotella, E. J. (1980). Women's labor force participation and the decline of the family economy in the united states. *Explorations in Economic History*, 17(2):95.

Rotella, E. J. (1981). The transformation of the american office: changes in employment and technology. *The Journal of Economic History*, 41(1):51–57.

Tiebout, C. M. (1956). A pure theory of local expenditures. *Journal of political economy*, 64(5):416–424.

Wagman, B. and Folbre, N. (1996). Household services and economic growth in the United States, 1870–1930. *Feminist Economics*, 2(1):43–66.

Weingast, B. R. (1995). The economic role of political institutions: Market-preserving federalism and economic development. *JL Econ. & Org.*, 11:1.

Wong, H.-P. C., Clark, J., and Hall, J. C. (2018). Immigrant ethnic composition and the adoption of womenâĂŹs suffrage in the united states. In *Public Choice Analyses of American Economic History*, pages 167–178. Springer.