

Learning from Quebec's Experience

Understanding Recent Research on Quebec's Childcare Programme

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Presentation based on recent working paper “Universal Child Care, Maternal Labour Supply, and Child Well-being”

- Joint with Michael Baker (Toronto) and Jon Gruber (MIT).
- Available from my website at www.econ.ubc.ca

Agenda:

- 1) Why study Quebec's programme?
- 2) Our methodology
- 3) Our findings
- 4) Limitations
- 5) Policy Implications



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1. Why study Quebec's program?

A source of very credible analyses of childcare is randomized experiments: (e.g. Perry Preschool, Carolina Abecedarian.)

- Randomization ensures observed changes are caused by childcare and not other factors.

Problems with experimental evidence:

- Small samples. Imprecise inferences?
- Focus on disadvantaged families: Does it generalize to all families?
- Model programmes: What happens in 'real world' programmes?



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The case of Quebec's \$5/day programme:

- Subsidized care introduced in September, 1997.
- Phased in over period 1997-2000.
- No income test; universal programme.

Why is Quebec's experience useful for the study of childcare?

- Methodologically:
 - This policy episode shares statistical properties of experiments.
- For policy makers:
 - Arguably the best example for other provinces considering the Quebec Model.



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2. Our methodology

We use Statistics Canada's National Longitudinal Study of Children and Youth (NLSCY).

- Five waves available, from 1994-95 to 2002-03.
- About 2000 kids per age per wave.
- We focus on children age 0-4 from two-parent families.
- Age 6-7 not surveyed in 2002-03.



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Outline of Empirical Strategy:

- We don't have randomization of treatment.
- We do have something close to randomization of eligibility – the introduction of the CPE \$5/day programme in Quebec.
- Standard methodology in policy analysis.



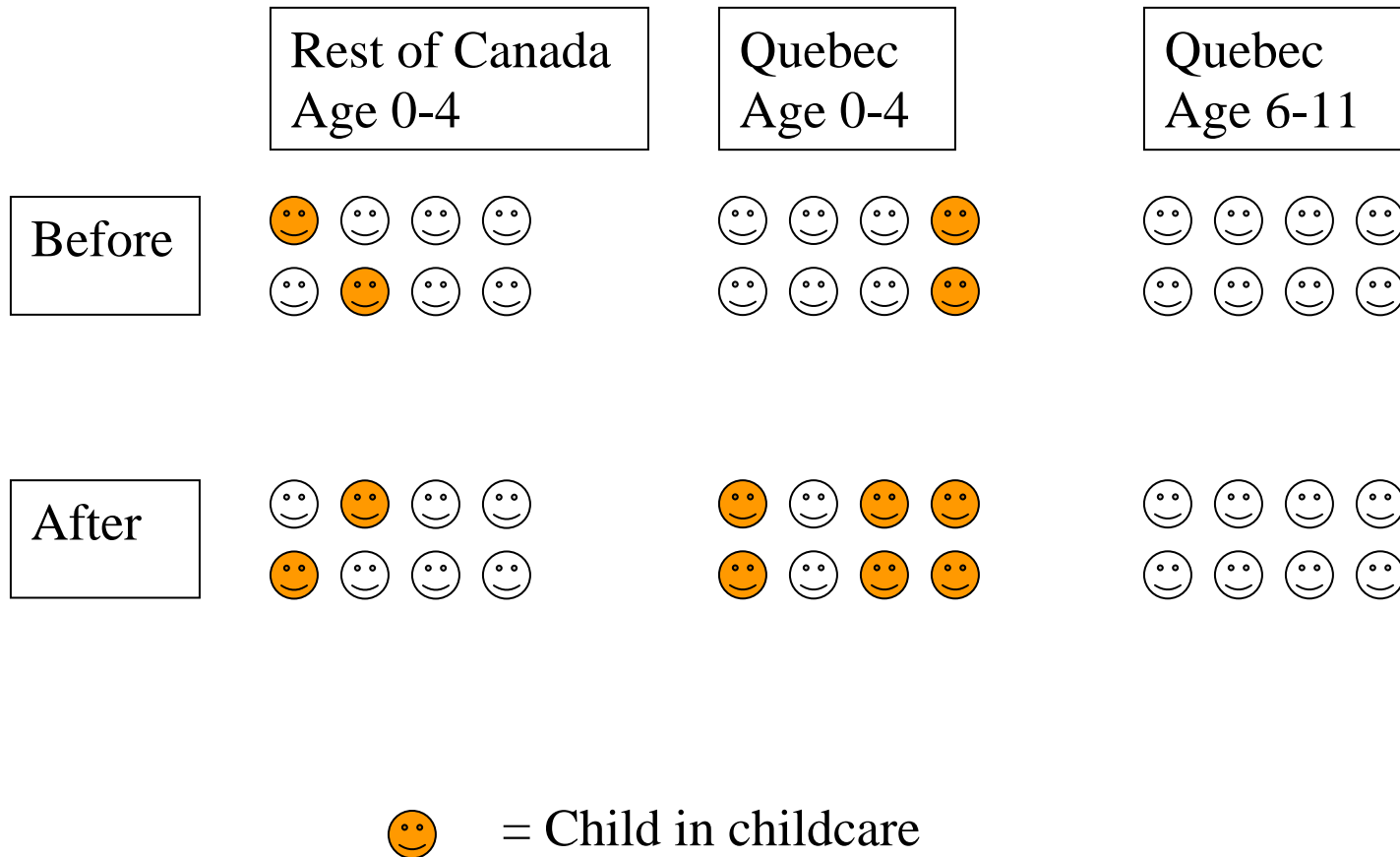
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Basic strategy:

- Compare Quebec children age 0-4 before and after the introduction of Quebec's \$5 / day programme.
- Compare Quebec before and after to Rest of Canada before and after
- Also compare to Quebec kids age 6-11 before and after.



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Comments on this strategy:

- Critical assumption: policy is the only thing that differentially changed in Quebec in the 'after' period.
- We check this assumption in four ways.
 1. We look at graphs of the outcomes to see if things line up with the policy change.
 2. We try different control groups – RoC and Quebecers age 6-11.
 3. Look for common patterns in the outcomes; don't cherry pick a few results.
 4. Compare results to see if they resonate with the existing research in the area.



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Threats to validity:

- Were there any other changes in the environment that affected children aged 0-4 in Quebec in 2000-03?
- But not affecting RoC children or Quebec children 6-11?



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What questions this strategy allows us to consider:

- What would happen if other provinces tried the same policy as Quebec?

What questions we cannot consider:

- Can't distinguish between effect of increased childcare and increased maternal employment.
 - We can only evaluate the 'whole package'
- Can't use this for centre-based vs. in-home care.
 - CPE programme had both!
- Can't distinguish between profit/not-for-profit/private/public
 - Many children in the \$5 programme were placed in private childcares because of space constraints.



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What outcomes we study:

Note: All of these are contemporaneous – no long-run outcomes. (Data not available.)

- Childcare use and mode.
- Maternal employment.
- Family behaviour. (self-reported)
- Child behaviour (parent-reported)
- Child health (parent-reported)



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What we don't study:

The NLSCY doesn't allow us to properly study the following questions, as important as they are:

- Cognitive outcomes.
- Test scores.
- Evidence of 'positive' social interactions.



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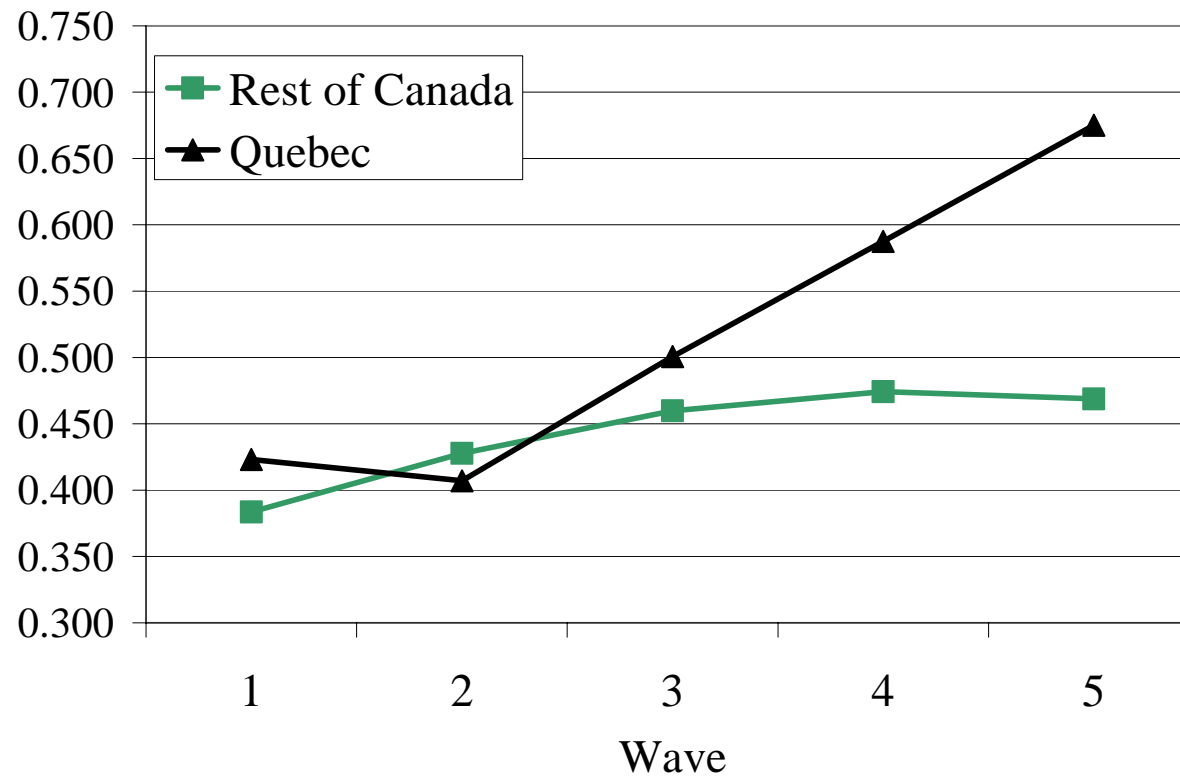
3. What we find

- Present some graphical evidence.
- Each graph shows the average for
 - children age 0-4
 - Quebec vs. Rest of Canada
 - Waves 1 to 5: policy starts in wave 3.
- More careful regression analysis is reported in the paper.
 - Controls for observable family characteristics.



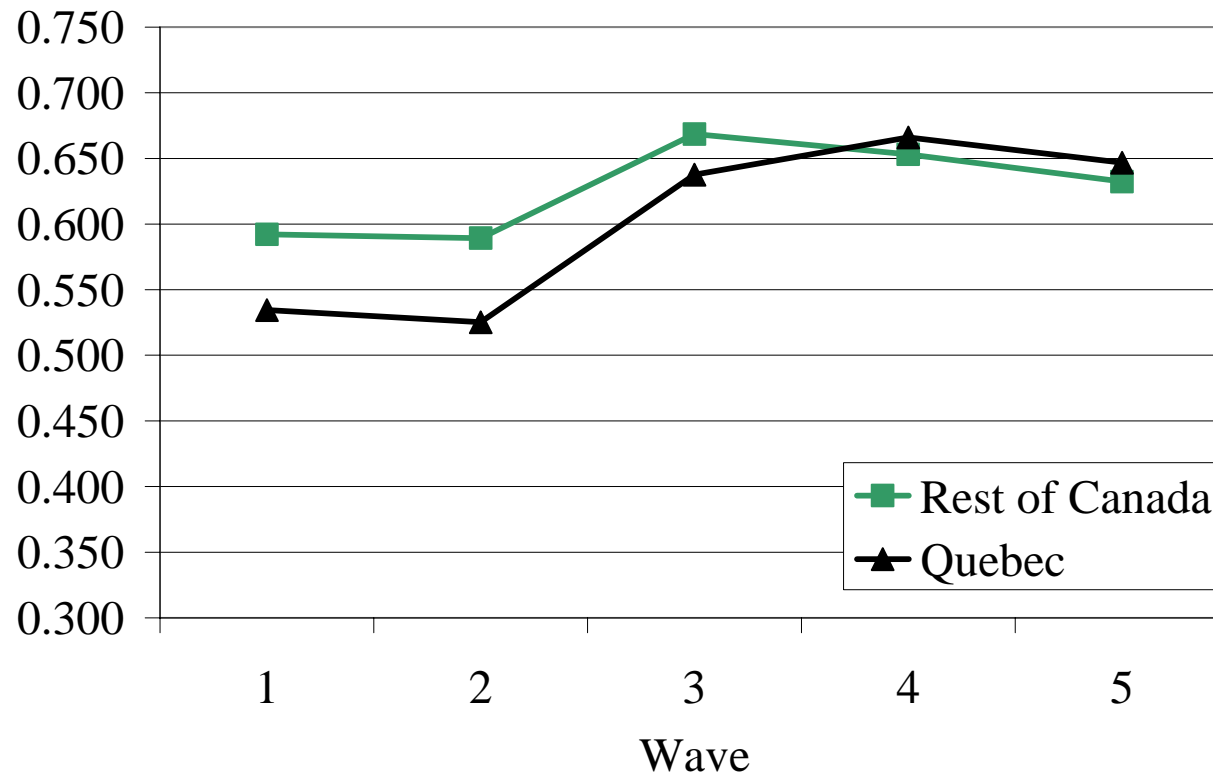
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In any care



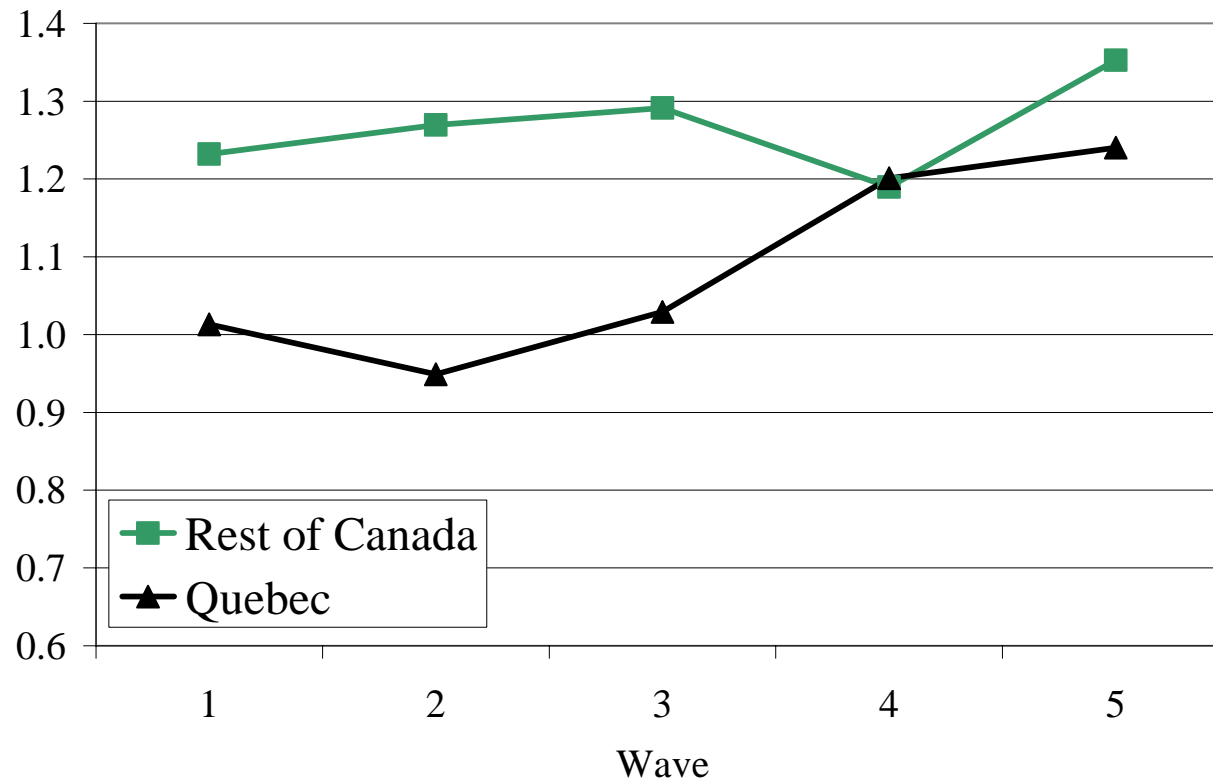
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Mother works



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Pooled Aggression Score, Ages 2-4



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Our results in context:

- There have been questions about how our results relate to the existing body of evidence on childcare.
- Other researchers using different data have found some similar results.
- Questions about the channel: Quality? Duration of Exposure? Age of first exposure? SES differences?



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Examples of similar results:

a) National Institute for Child Health and Development findings of increased aggression. (e.g. *Child Development* 2003)

“The more time children spent in any of a variety of nonmaternal care arrangements across the first 4.5 years of life, the more externalizing problems and conflict with adults they manifested at 54 months of age and in kindergarten, as reported by mothers, caregivers, and teachers. . . .

. . . . More time in care . . . also predicted at-risk (although not clinical) levels of problem behaviour, as well as assertiveness, disobedience, and aggression”



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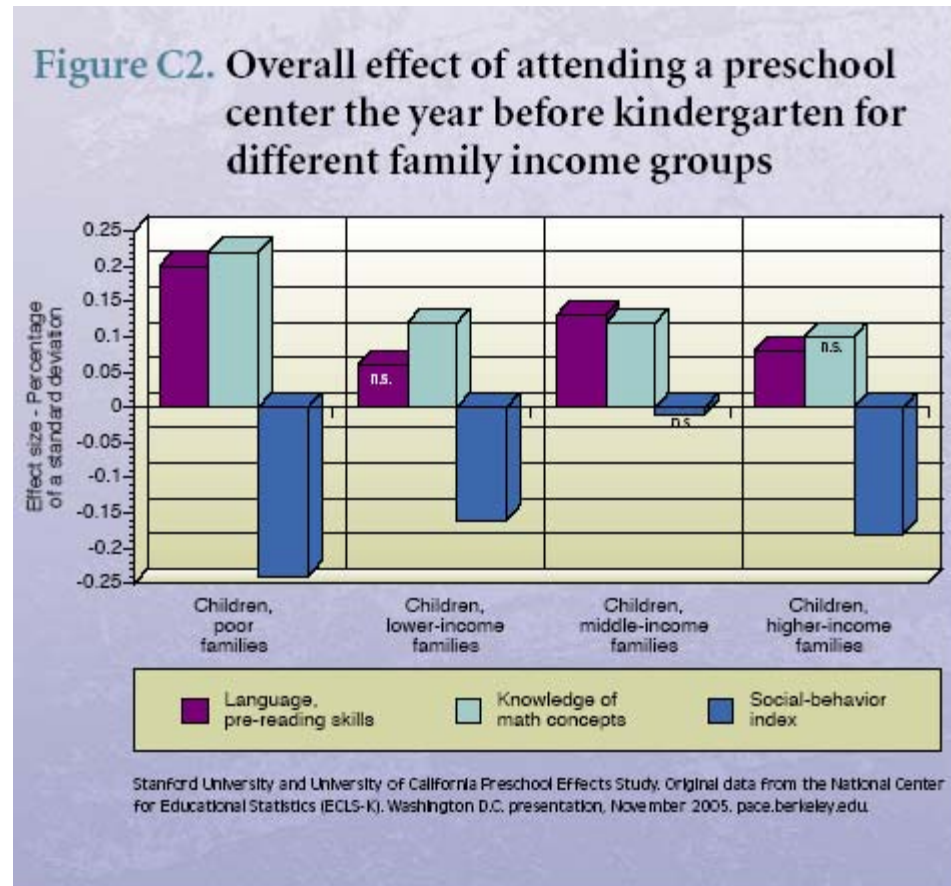
Examples of similar results:

- b) Stanford-Berkeley PACE study findings of increased cognitive development but worse behaviour (*Economics of Education Review, forthcoming*)

“We found that average exposure to a center program before starting kindergarten is associated with about a 0.10 *SD* advantage in pre-reading and math skills. But attending a center also appears to suppress social development, including the child's motivated engagement in kindergarten classrooms, self-regulation, and a variety of interpersonal skills, as reported by their teachers.”



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Source: Stanford University and University of California Preschool Effects Study.



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4. Limitations of our work:

We in no way view our work as the 'last word' on childcare.

There are several limitations to our work which should be understood before using our results:

- Don't look at singles.
- Can't make statements about centre-based vs. home-based care.
- Can't study cognitive development.
- Effects might not be long-lasting.
- 'Black box' - we see the outcomes but not the mechanisms.
- Parent-reported outcomes.



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5. Policy and Research Implications

What are the implications of our research?

For a province considering a programme like Quebec's:

- The best place to look to predict the impact of the programme is to see what happened in Quebec.
- Could expect increase in maternal employment.
- Some evidence that impact on family and child behaviours could be negative.



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For childcare researchers:

- We encourage more research from a variety of perspectives.
- Is the result robust to other methodologies and approaches?
- What mechanisms drive the result (quality of care, age, duration, maternal employment)

