The background features several abstract, colorful shapes and arrows. On the left, there is a large, light purple arrow-like shape pointing towards the right. In the center and right, there are green and blue curved arrows pointing in various directions. Scattered throughout are several small, yellow triangular shapes pointing outwards, resembling rays of light or sparks.

# **Parental Hours of Work and Child Behavioural and Emotional Outcomes**

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May 2005**



# Disclaimer

- The research and analysis in this paper are based on data from Statistics Canada.
- However, the opinions expressed do not represent the views of Statistics Canada.



# Outline

- Introduction & literature
- Methods
- Findings
- Conclusion



# Introduction & Literature

- In 1976, 39.2 percent of Canadian women with children under the age of 16 were employed, while in 2003, 71.7 percent were employed. (Women in Canada: Work Chapter Updates 2003)
- Work-family conflicts can generate undue stress in families.
- Such stress could adversely affect the behavioural development of children.

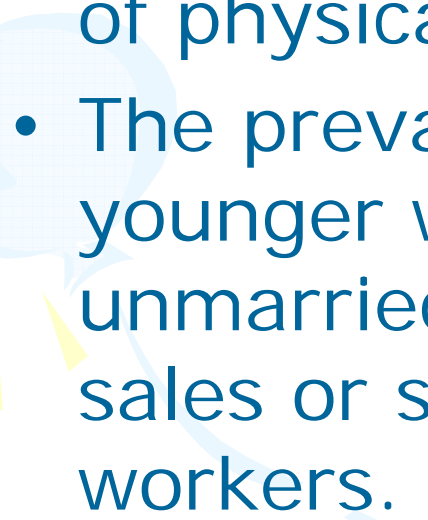
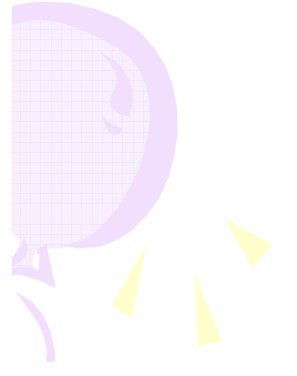


# Introduction & Literature

- In the 2000 wave of the General Social Survey, 34 percent of working Canadians identified too many demands or hours as the most common source of workplace stress. (Williams 2003)

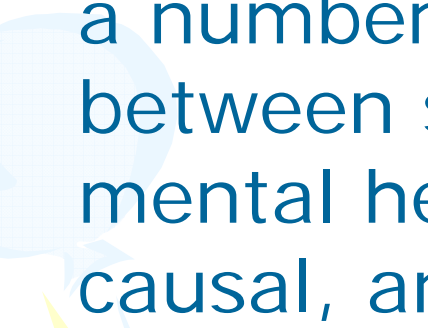
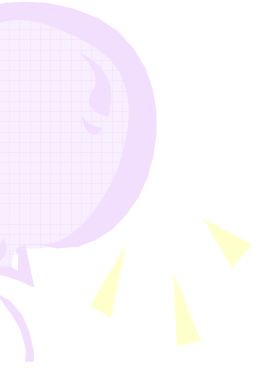


# Introduction & Literature

- Shift work or irregular schedules have been associated with a higher prevalence of physical and mental health problems.
  - The prevalence of shift work is higher for younger workers, less educated workers, unmarried workers, and for workers in sales or service industries and blue collar workers. (Shields, 2002)
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# Introduction & Literature

- Given that shift workers are relatively more deprived than non-shift workers on a number of measures, the association between shift work and physical and mental health outcomes is not necessarily causal, and could merely represent the impact of this relative deprivation, but warrants investigation.
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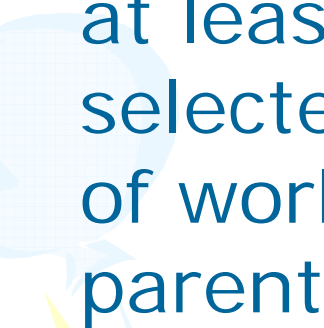

# Introduction & Literature

- This study uses data from the first four cycles of the National Longitudinal Survey of Children and Youth (NLSCY 94-95 to 01-02) to examine the relationship between parental hours of work and non-standard work schedules, the family environment children experience as measured by family functioning, parenting, and parental depression, and children's behavioural and emotional scores.





# Introduction & Literature

- Children who were four to eleven years of age between 1994 to 2001 and for whom at least two observations are available are selected to estimate the impact of hours of work and those same children whose parents were both working (was working for single-parents) are selected for the analysis of shift work.
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# Introduction & Literature

- Children's scores include hyperactivity, conduct disorder, indirect aggression, and emotional disorder scores.





# Introduction & Literature

- The study exploits the longitudinal feature of the data and relies on changes in parental work schedules over time to identify within unit effects. Within units effects are estimated using a fixed effects estimator.

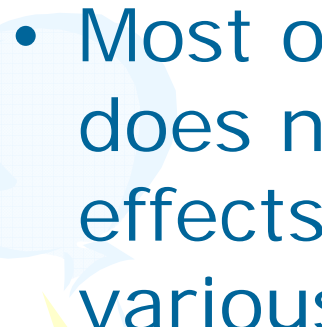



# Introduction & Literature

- The literature on parental (usually maternal) work and child outcomes looks at various angles:
    - No work, versus part-time work or full-time work at a point in time (currently or recently)
    - Work when the child is very young
    - Average hours of work over a period of time
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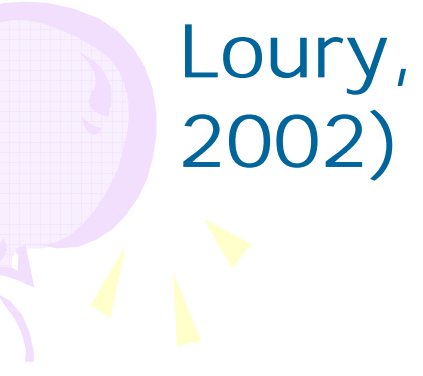


# Introduction & Literature

- A lot of the literature looks at cognitive impacts.
  - Most of the literature on work impacts does not address potential selection effects, but most estimators include various controls.
  - Dependent variables are either continuous and estimated with OLS, or dichotomous, and estimated with the logistic regression.
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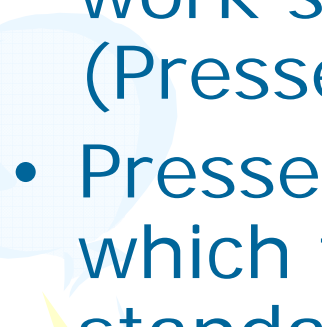



# Introduction & Literature

- Overall, the literature suggests that work or hours of work have relatively small negative impacts on child development.
  - Some literature also suggests that the impact of work on children in low SES families (usually in single parent families) are positive and more negative for children in high SES families. (Datcher-Loury, 1988; Fleisher, 1977; Gagné, 2002)
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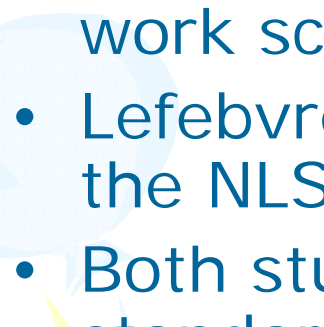



# Introduction & Literature

- There is currently very little research that specifically looks at the impact of parental work schedules on child outcomes (Presser, 2003).
  - Presser reviews these few studies, most of which find negative impacts of non-standard hours, although some of the studies suggested positive impacts.
  - It is unclear whether the studies included comprehensive controls.
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# Introduction & Literature

- The NLSCY was used in two studies (Lefebvre & Merrigan, 1998; Strazdins, Korda, Lim, Broom, & D'Souza, 2004) of the impact of non-standard work schedules on children.
  - Lefebvre and Merrigan (1998b) used cycle 1 of the NLSCY, while Strazdins et al. used cycle 2.
  - Both studies found negative impacts of non-standard schedules.
  - Both studies relied on cross-sectional analysis and summarized shift work into one measure (non-standard) schedule.
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# Methods

- Fixed effect equations subtract the mean observation for the child from each observation and use OLS on the transformation.
- The transformation results in any “fixed effect” (observed or unobserved) being dropped from the new equation.



# Methods

- The transformation is used to control for unobserved heterogeneity where the unobserved effects are assumed to be correlated with observed controls (e.g., hours of work, shift work).
- Care must be used in interpreting coefficients as effects are “within unit” effects

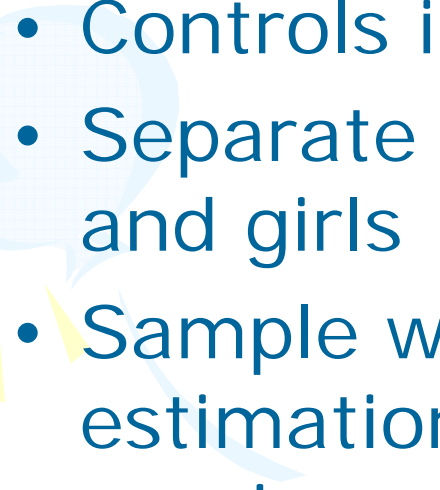



# Methods

- Child DVs: hyperactivity, conduct disorder, indirect aggression, and emotional disorder scores
- Child DV transformed into deciles by cycle, and child gender and age
- Child DV equations include controls for parenting, family functioning and depression (scores), and for presence of non-biological parent



# Methods

- Family DVs: parenting, family functioning, and depression
  - Controls include PMK age and PMK gender
  - Separate equations are estimated for boys and girls
  - Sample weights are not used in the estimation as the fixed effect model requires a balanced sample for the weight to be applicable
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# Methods

- Separate equations are estimated for each DV for hours of work on children or workers and non-workers, controlling for hours of work for both parents or the single parent (no work, part-time, 30-49; 50+)



# Methods

- Separate equations are estimated for shift work for children of workers (both parents working or single parent working) controlling for evening, night, rotating, split, irregular, on call, and week-end shifts for both parents or for the single parent.



# Findings

- More generally, the results indicate that long hours of work are a strain on *parental outcomes* in two parent families, although they do not appear to have consistent *direct* impacts on child outcomes.



# Findings

- Children in single parent families do worse on a number of measures and so do their parents, but the outcomes are not systematically related to hours of work.





# Findings

- As for shift work, night and evening shifts in two parent families appear to worsen certain child outcomes, while maternal split and on call shifts worsen parental depression and parenting.

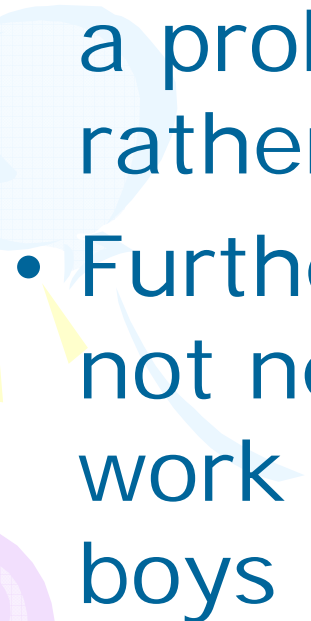
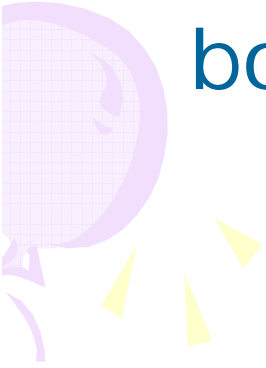


# Findings

- On the other hand, parental outcomes tend to be improved for children living in single parent families when the parent works night shifts.



# Findings

- The findings therefore suggest that hours of work and shift work can be a problem, but in two parent families rather than in single parent families.
  - Further, the impact of shift work is not negative for all types of shift work nor is it always the same for boys and girls.
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# Findings

- The negative outcomes seen in single parent families can generally be attributed to marital disruption or to a shortage of parental resources rather than to hours of work or shift work.
- The opportunity to work or to do shift work may be positive for single parents.



# Findings

- More work hours means that the single parent family is less likely to live in poverty.
- Shift work, particularly night shifts, may represent an opportunity to spend more time with children and to economize on child care costs if a relative is available to care for the children overnight.



# Conclusion

- Findings suggest that parents and children may suffer from long hours of work and from shift work.
- However, since the findings do not systematically generalize, employers and policy makers would do well to find out from parents the type of assistance that would best enable them to reconcile work and family issues.
- It is likely that a menu of measures will be required.