

# The Impact of Ontario's Full Day Kindergarten Program by the end of Senior Kindergarten: Evidence from Hamilton, Ontario

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## The Program

- Full Day Kindergarten (FDK) was introduced to Ontario's schools in September 2010. Phased in over five years, FDK will be available in all Ontario's kindergartens in September 2015. (Pascal, 2009)
- FDK consists of at least six major changes, though only the first is highlighted in the program name:
  - Introduction of fully provincially funded **full day, every day** kindergarten;
  - Introduction of a two person **educator team**, a certified teacher and a registered early childhood educator;
  - Increased class size** to an average of 26 children from a maximum of 20;
  - Introduction of an optional **extended day** from 7:00 am to 6:00 pm, integrated with the regular day program;
  - Official introduction of a "**play-based**" curriculum; and,
  - Blending JK and SK classes** wherever possible, such that children have the same educators for two years.

## Study Design

- As no Hamilton schools were included in the provincial evaluation of FDK (Janus, et al., 2012; Vanderlee, et al., 2012; Ontario, 2013), the Hamilton-Wentworth District School Board (HWDSB), Hamilton-Wentworth Catholic District School Board, City of Hamilton and Offord Centre for Child Studies, McMaster University, committed funding and support for a local evaluation.

- The study involved surveys of educators and parents, assessment of children with the Early Development Instrument (EDI), and contemplates follow-up assessments using administrative data. This poster reports only the results of the EDI assessments.
- The Early Development Instrument (EDI) measures the developmental health of child populations, typically at age 5 (i.e., in Ontario, during Senior Kindergarten), based on teacher reports (Janus & Offord, 2007).

## Sample

- Two rounds of data collection: March-April 2012 and April-May 2013.
  - All Senior Kindergarten classes were selected where:
    - FDK had been implemented for two years – i.e., 2010 starts in 2012, 2010 and 2011 starts in 2013; and,
    - both a teacher and an ECE were in the room for the full day (i.e., with the "full program").
  - From each class, the study selected\*:
    - randomly 4 children without identified special needs; plus,
    - all children with identified special needs.
- \* HWDSB sought parent consents – where consent was not received,
- in 2012, chose the next student with consent alphabetically,
  - in 2013, chose another student randomly.

## Analysis

- Total realized sample (both rounds combined): 419 children without identified special needs.
- Cases were weighted to allow for the different class sizes from which they were drawn.
- The previous EDI results (2002, 2005, 2008, 2010) from the same set of schools were used as the control.
- Results were standardized to control for differences in gender, age within cohort, and neighbourhood socio-economic status.
- Reported results compare teacher responses only, for children without identified special needs.

Fig. 1

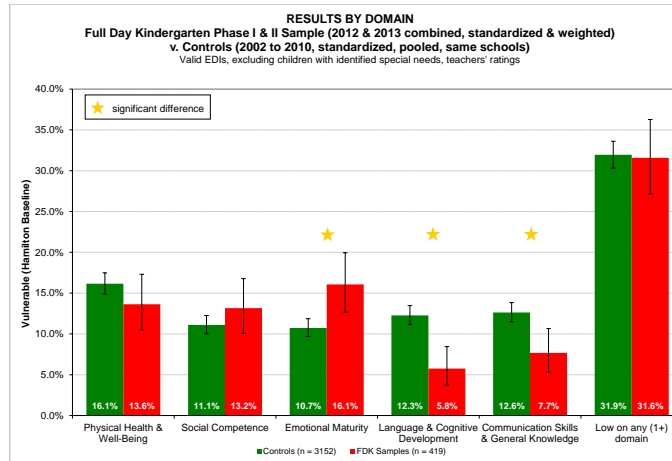


Fig. 2

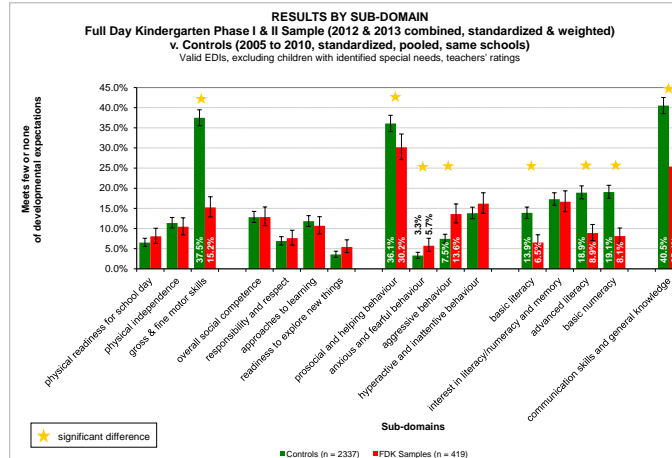
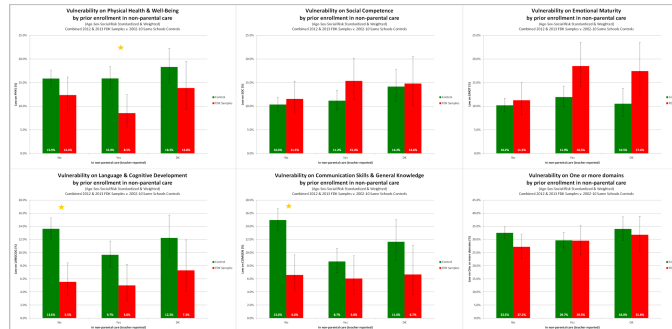


Fig. 3



## Results

- At the domain level (Figure 1), there is statistically and substantively significant improvement in vulnerability on Language & Cognitive Development and Communication Skills & General Knowledge.
- However, there is significant deterioration in vulnerability on Emotional Maturity and no significant evidence of change in vulnerability on Social Competence or Physical Health & Well-Being.
- While there are changes in the composition of vulnerability, overall vulnerability ("Low on 1+") shows no evidence of change.
- At the sub-domain level (Figure 2), there is significant improvement in the Communication Skills & General Knowledge sub-domain and in all the sub-domains of Language & Cognitive Development except for Interest & Memory. The most substantial improvements are in the Advanced Literacy and Basic Numeracy sub-domains.
- The sub-domains of Emotional Maturity show *mixed* results, with improvement in Pro-Social & Helping Behaviour, but deterioration in Anxious & Fearful Behaviour and in Aggressive Behaviour.
- While the sub-domains of Social Competence and Physical Health & Well-Being generally show no changes, in line with the domain results, the sub-domain of Gross & Fine Motor Skills shows the largest improvement amongst all the sub-domains – a 22 percentage point (60%) decrease in those not meeting expectations.

Note that "vulnerability" on the domains is determined relative to a baseline, in this case, the 10th percentile of Hamilton's 2005 results. The proportion of children who are "meeting few or none of developmental expectations" on the subdomains is determined relative to fixed standards (Janus, et al., 2005). Sub-domain results for the controls are also not available for 2002.

- The domain results were also broken down by whether the child was reported by the teacher to have been in non-parental care prior to entering Kindergarten (Figure 3). These results suggest that the improvements in Language & Cognitive Development and Communication Skills & General Knowledge accrued entirely to those who had *not* been in non-parental care, while improvement in Physical Health & Well-Being accrued to those who *had*. No other results could be distinguished from noise.

## Conclusions

- If sustained amongst the whole population, these results suggest both considerable promise and areas for concern. Though, that the domain and sub-domain level changes don't lead to a decrease in overall vulnerability is disappointing. Note, also, that the most promising results are all in the traditionally "teachable" – principally academic – areas.
- These results evaluate the program as *implemented* and cannot separate the effects of its different components. It is also implemented in only one community (if two Boards).
- The large improvement in Gross & Fine Motor Skills suggests that the full day program provides greater opportunity for physical activity than the half day program. This merits further investigation, which is being pursued.
- The results by reported enrollment in non-parental care suggest that most of the benefit of FDK is a result of offering more children access to non-parental care. These results require confirmation against *parent* reports of enrollment in non-parental care.

## References

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