knowing
numbers
your

A community approach to understanding the early childhood education workforce

Methodology

Key Informant Interviews and the Development of the Survey

Following the launch of the Knowing Our Numbers Project, each of the 47 DSSAB and CMSMs were invited to have an introductory meeting with the report authors to learn about the vision of the project and ask questions. Meetings occurred between December 2022 and April 2023. Of 47 Ontario service system managers, 43 signed on to the initiative.

The report authors conducted key informant (KI) interviews with each participating region to better understand each region's early years system at the policy level. These KI interviews informed the development of a *system survey* that went out to all participating regions to better understand individual regions at a systems level. The KI interviews and results from the system surveys informed the development of the workforce survey that is central to the Knowing Our Numbers Project.

The survey was administered to those working in licensed child care, both RECEs and non-RECEs, directors/supervisors, those working in school boards in both before- and after-school programs and full-day Kindergarten, and those working in licensed home care and EarlyON centres. The survey was also available in French. All participating regions reviewed the survey and the authors incorporated feedback. An equity consultant then assessed questions. The survey was uploaded onto Interceptum, a data-collection platform with data stored in Canada.

The College of Early Childhood Educators (CECE) released surveys in three waves to all RECEs in the province from September 11–13, 2023. The survey was available until October 4, 2023. Centre directors were asked to circulate the survey to their non-RECE staff. Regional governments distributed the survey to their licensed child care agencies. The study and survey were also promoted through social media channels where possible. The chart below provides distribution rates and analytics for RECE survey distribution by the CECE.

RECE Survey Distribution Analytics

Date and Time Sent	# Sends	# Opens	Open Rate	Mobile Open Rate	Desktop Open Rate	Clicks	Click Rate
9/14/2023 11:15	9,725	6,712	69.5%	14.0%	86.0%	913	13.6%
9/13/2023 11:15	9,710	6,763	70.1%	15.0%	85.0%	919	13.6%
9/12/2023 11:17	21,804	14,557	67.3%	15.8%	8.0%	2,141	14.7%
9/11/2023 11:16	19,059	12,721	67.2%	17.7%	82.3%	1,918	15.1%

Note: Data provided by the CECE.

To ensure the results of the study elevate the voices of those in Francophone, remote, and northern regions that have unique challenges compared to those of urban areas, six regions were selected and focus groups were conducted (see Focus Groups). Regional reports will be available on the Knowing Our Numbers website.

FOCUS GROUPS

Focus groups were selected based on unique features of the communities and to ensure Francophone, remote, and rural areas were well represented in the study. All participants were provided with an [information letter](#) and opportunities for questions and clarifications prior to obtaining consent. Focus groups were conducted in-person in May 2023 and April 2024. A total of 91 participants across six regions included supervisors/directors, ECEs, non-RECEs (with and without director's approval), those working in EarlyON centres, licensed home child care providers and visitors, and as quality assurance specialists, pedagogical leaders, SNR consultants, and ECEs in school-board FDK. Participants were from English, French, and Indigenous-led programs across all auspice types (public, non-profit, and for-profit).

Rationale for Focus Group Site Selections

Timiskaming: This jurisdiction has a high number of French and Indigenous-led child care centres compared to their total number of programs. The region was selected to understand the impact of workforce challenges on these programs.

Cochrane: This jurisdiction has a high demand for alternative child care hours as it is a mining region and shift work is common. The study sought to understand the impact of the demand for alternate hours on workforce recruitment and retention.

Rainy River: A majority of the programs in this jurisdiction are directly operated by the DSSAB. The study sought to understand the impact of public operation on the workforce and working conditions.

Thunder Bay: This jurisdiction has specific challenges due to seasonal work. The study aimed to understand the impact of variable child care needs over the year.

Manitoulin-Sudbury: This jurisdiction had caps on parent fees prior to CWELCC. The study aimed to understand the impact of parent fees on program operations.

Prescott and Russell: This is a French designated jurisdiction. All child care programs in this region are either bilingual or francophone. It was selected to understand the impact of workforce challenges on these programs.

Qualitative Data Analysis

The authors identified emerging themes within and across focus group sites. All focus groups were recorded and transcribed. Emerging themes are included throughout this report as well as in **The Northern Experience report**.

Quantitative Data Analysis

All data management activities, including merging of English and French versions of all surveys, data cleaning, and analysis, were performed using the Stata 17 software 1.[1] Where this report refers to statistically significant results, categorical data were tested for significance with Pearson's Chi-square and Cramer's V. Continuous data were analyzed with Stata's t-test and ANOVA procedures. Responses to variables measured on Likert scales were evaluated using the Wilcoxon rank-sum test. Averages are computed using a weighted approach, where the contribution of each group is proportional to the number of participants it contains. This method ensures that groups with more participants have a greater influence on the overall average, while smaller groups have less impact.

Limitations

Surveys were distributed through the CECE to all members in good standing. There is no central database for non-RECEs and home providers. This study relied on program directors, supervisors, and service system manager teams to circulate the survey to their non-RECEs and home providers. As such, response rates were low for these groups relative to RECEs and not evenly distributed across participating regions.

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[1] StataCorp. 2021. Stata Statistical Software: Release 17. College Station, TX: StataCorp LLC.

In most cases, regional data are not available for program directors and home providers as the number of participants per jurisdiction was too low for generalization of results.

Surveys offer several advantages — they are accessible, easy to conduct, flexible, and cost-effective. Surveys can be administered to a large and diverse participant group both in-person and remotely, increasing reach, validity, accuracy, and generalizability of findings.

While surveys offer various advantages, they are not without their limitations:

1. **Response bias:** Respondents may share misleading information due to factors like social desirability. Participants who choose to respond to a survey may also be different from those who choose not to respond. For example, people that have more time or unhappy with the status quo are more likely to respond.

2. **Response rate:** Low response rates reduce generalizability of results.

3. **The imposition problem:** Researchers choose the questions and decide what is important rather than the participant. The result is that the participant may not be able to express themselves in the way they want.

Results from the *Knowing Our Numbers* project should be interpreted with these understandings. Results should be put into the context of methodological limitations with further research needed to better understand the ECE workforce in Ontario.

Regional Distinctions

Although the nature of workforce surveys limits our ability to make inferential statements, aggregation to larger units can provide a higher level of confidence in identifying workforce characteristics and differences on a "regional"

basis. The authors tested several configurations, ranging from four to seven regions, before settling on the current six region divisions presented in the Executive Report.

The concept of geographical regions is fraught with definitional issues. For example, terms such as Eastern Ontario are in common usage, although in practice the actual definition often depends on the organization that employs it. Eastern Ontario may, or may not, include Prince Edward, Hastings, and Northumberland counties, although these are often considered to be a part of one of the many definitions of Central Ontario. One of the common identifications used by the Ontario government or its agencies is the "Golden Horseshoe" or the larger "Greater Golden Horseshoe." Unlike Metrolinx, we do not use this definition because it would cover approximately three-quarters of all survey responses.

In northern Ontario, there are two clearly identified areas: the Northwest and Northern Ontario (via FONOM and NOMA associations within AMO). Even when combined into the "North" category, the total number of respondents is, understandably, the lowest of all identified regions.

For analysis and reporting purposes, we created the region "Lakeshore West." While firmly a part of the Golden Horseshoe, two of its constituent parts (Hamilton and Niagara) are commonly associated with Southwestern Ontario, while Halton's assignment may differ based on user choice. For analytical purposes, the "culprit" is Hamilton, with by far the highest number of survey respondents in the KON study. Including these three jurisdictions in the "West" group would represent almost 50% of all respondents.

Of the 4,603 total workforce survey responses, we could not identify the geographical region for 114 (2.5%) participants from either postal code or location-related questions.

The chart below identifies the boundaries of the report regions along with number of non-RECE and RECE respondents. In addition, 960 directors/supervisors and 249 licensed home child care providers responded to the survey. These numbers are not included in the following chart.

Regional Assignments for the Knowing Our Numbers Study

Central East	Number of RECE and Non-RECE participants	Per cent of regional total
Regional Municipality of Durham	97	17.2
City of Toronto	466	82.8
TOTAL	**563**	**12.5**[2]

Central West		
County of Dufferin	32	6.2
Regional Municipality of Peel	127	24.8
County of Simcoe	129	25.1
Regional Municipality of York	225	43.9
TOTAL	**513**	**11.4**[2]

East		
City of Cornwall	65	8.1
County of Hastings	15	1.9
City of Kawartha Lakes	38	4.7
City of Kingston	78	9.7
County of Lanark	37	4.6
United Counties of Leeds and Grenville	61	7.6
County of Lennox and Addington	19	2.4
District Municipality of Muskoka	43	5.3
County of Northumberland	29	3.6
City of Ottawa	332	41.1
City of Peterborough[1]	24	3.0
United Counties of Prescott and Russell	6	0.7
County of Renfrew	60	7.4
TOTAL	**807**	**18.0**[2]

Note: Of the 4,603 total survey responses, geographical regions could not be identified for 114 (2.5%) participants based on either postal code or location-related questions. Numbers do not include directors/supervisors or licensed home providers.

[1]These regions were not part of the Knowing Our Numbers Project. Sample gathered through CECE distribution.

[2]Per cent of total sample.

North	Number of RECE and Non-RECE participants	Per cent of regional total
Algoma District Services Administration Board	33	8.3
District of Cochrane Social Services Administration Board	29	7.3
City of Greater Sudbury	41	10.4
City of Kenora[1]	4	1.0
Manitoulin-Sudbury District Services Board	38	9.6
District of Nipissing Social Services Administration Board	70	17.7
District of Parry Sound Social Services Administration Board	16	4.0
Rainy River District Social Services Administration Board	6	1.5
District of Sault Ste. Marie Social Services Administration Board	15	3.8
Thunder Bay District Social Services Administration Board	99	25.0
District of Timiskaming Social Services Administration Board	45	11.4
TOTAL	**396**	**8.8[2]**

West	Number of RECE and Non-RECE participants	Per cent of regional total
City of Brantford	32	2.8
County of Bruce	35	3.1
Municipality of Chatham-Kent	22	2.0
County of Grey	30	2.7
County of Huron	39	3.5
County of Lambton	52	4.6
City of London/Middlesex County[1]	82	7.3
Norfolk County	100	8.9
County of Oxford	83	7.4
City of St. Thomas	59	5.2
City of Stratford[1]	11	1.0
Regional Municipality of Waterloo	222	19.8
County of Wellington	94	8.4
City of Windsor/County of Essex	263	23.4
TOTAL	**1124**	**25.0[2]**

Lakeshore West	Number of RECE and Non-RECE participants	Per cent of regional total
Regional Municipality of Halton	160	14.7
City of Hamilton	844	77.7
Regional Municipality of Niagara	82	7.6
TOTAL	**1086**	**24.2[2]**

Note: Of the 4,603 total survey responses, geographical regions could not be identified for 114 (2.5%) participants based on either postal code or location-related questions. Numbers do not include directors/supervisors or licensed home providers.

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[2]Per cent of total sample.