### RESEARCH HIGHLIGHT

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# Comparison and Analysis of Provincial Builder and Renovator Industry Programs

### INTRODUCTION

This research project examined and compared the current situation of the provincial builder and renovator training and certification programs in Canada and other countries.

Most regions and provinces in Canada have developed training and certification programs for builders and renovators. Each region believes, to some degree, that it is unique and programs require only regional customization. It was not known how these programs compared to one another and to the National Occupational Analysis for New Home Builder and Residential Renovation Contractor. There was a need to clearly identify the underlying rationale for why and how training programs, delivery, and management were developed and implemented.

### **OBJECTIVES OF THE STUDY**

There were five objectives to the study:

- To analyse existing programs and compare the individual elements of the required training courses using the tasks and subtasks of the National Occupational Analysis for New Home Builder and Residential Renovation Contractor as the reference point.
- 2. To identify training gaps in the awareness, knowledge acquisition and skill development elements of the courses through comparison to the awareness, knowledge acquisition and skill development elements of the Occupational Analysis (OA).
- To identify operational differences and commonalities of the training programs by comparing the delivery processes and management of the programs.

- 4. To compare programs in other countries with industry programs similar to the Canadian programs.
- 5. To propose a harmonized, pan-Canadian model for builders and renovators.

### **METHODOLOGY**

The research involved seven steps:

- I. Collecting course materials for analysis. The project team obtained course materials from Home Builders' Associations in British Columbia, Saskatchewan, Manitoba, Quebec and the Atlantic Provinces and from the Provincial Home Builders Institute of Alberta. The Ontario Home Builders' Association does not offer builder-renovator courses. In addition, the National Renovators' Business Course was obtained.
- 2. Development of a standard course analysis matrix. The Occupational Analysis for New Home Builder and Residential Renovation Contractor is divided into five main content areas: business and operating plans, financial, human resources, marketing and sales, and project management. The sub-blocks, and their corresponding tasks, were then assigned to the appropriate content areas. This allowed for more efficient analysis of the courses, which were generally grouped into these five areas.
- 3. Analysis of course materials. Since the analyses were conducted using participant manuals, rather than instructor manuals, the accuracy of the evaluations in terms of the level of expertise provided, is uncertain. In addition, there was some difficulty in obtaining course materials because of proprietary concerns.





### HOW THE ANALYSIS WAS DONE

Courses were distributed to members of the project team and systematically assessed against the OA matrix. This required a matching exercise, that is, identifying the topics in the OA, identifying the topics in the assigned courses and identifying where there was a match. The level of expertise presented on the matched topic in the OA by the course was assessed using the following guidelines:

- Awareness: introduction and reference to the topic
- Knowledge: in-depth or lengthy discussion about the topic referenced in the sub-task.
- Skill Development: inclusion of any or all of the following activities:
  - Case study analysis
  - Hands-on use of resource materials
  - Field trips with practical exercises, such as site visits
  - Take-home exercises
  - Worksheets
  - In-class activities, such as debates or role-playing, that capture and hold students' attention.

The results from each course were then transferred to a master matrix, which was organized according to the original OA. From this matrix, the gaps between the OA and the courses for a region were identified. Also identified were course elements that deal with items not in the OA.

One member of the team was responsible for providing interpretation throughout the review process. A general overview of all the course analyses was also conducted, gaps were identified and a re-analysis determined that nothing was overlooked.

4. Assembly and summary of program requirements and delivery process information. Information on regional training and certification programs was obtained from the Home Builders' Associations and from the Professional Home Builders Institute of Alberta. The researchers compared all the operational aspects of the programs. Tables summarized the information, which was then used to compare the regions. Information about programs in the United States was obtained from the National Association of Home Builders website, and information about programs in Australia was obtained from one of the research team members.

- Development of a pan-Canadian model. Based on the course analyses and the program requirements and delivery process information, the researchers developed a pan-Canadian model.
- 6. Validation of the proposed, harmonized, pan-Canadian model in British Columbia through focus groups and key informant interviews under the direction of the CHBA-BC. There was a focus group discussion in Vancouver on March 26, 2004. Following the focus group, key informant interviews were held with builders and renovators from B.C.
- 7. Presentation of the results of the research to the National Education and Training Advisory Committee at its spring meeting in Ottawa, 2004.

## COMPARISON OF BUILDER AND RENOVATOR TRAINING COURSES IN CANADA

The builder-renovator certification programs in Canada vary from region to region. However, in terms of required courses and criteria, there are common characteristics. In B.C., Alberta and Manitoba, there is separate certification for builders and renovators. This is not the case in the other regions. In all cases, except Quebec, where a license is required, certification is voluntary. In all regions, for a company to be certified, it must employ a least one individual who has met the requirements of certification. The number of years of experience required by an individual or business is five years in B.C., Alberta and Manitoba, and three in the Atlantic Provinces. No experience is required in Saskatchewan. The designation for all regions is only valid for one year.

In British Columbia, there are six mandatory courses for the Registered Housing Professional (RHP) program and five for the Registered Renovation Professional (RRP) program.

In Alberta, there are nine mandatory courses required for the *Accredited Master Builder®* program and five optional courses. For the *Accredited Master Renovator®* program, there are 10 required courses—in addition to the mandatory courses for the Master Builder, there is the National Renovators' Business Course.

In Saskatchewan, seven courses are required for the Certified Professional Home Builder program.

Manitoba requires six courses for the Certified Housing Professional Diploma program. Manitoba also has a Certified Renovation Professional Diploma program. For this designation, the National Renovators' Business Course is required.

Ontario does not have a training or certification program for builders and renovators.

In Quebec, builders and renovators are required to have a Contractors' license. La Régie du batîment du Québec approves all training, which is delivered through APCHQ (L'Association provinciale des constructeurs d'habitations du Québec). The Contractor Training Program consists of three courses, two of which contain a number of modules.

In the Atlantic Provinces, seven courses make up the Atlantic Housing Professional Studies program

There are five course areas common to each of the regions:

- · Financial Management,
- · Sales and Marketing,
- · Construction Law,
- · Building Code, and
- · Business Management.

In the United States, there are several designations offered by the National Association of Home Builders. For the purposes of this study, four designations are summarized:

- · Certified Graduate Associate (CGA),
- · Certified Graduate Builder (CGB),
- · Certified Graduate Remodeler (CGR) and
- Graduate Master Builder (GMB).

In Australia, there are several states, each with different programs. For this report, the Registered Building Practitioners program in Victoria was chosen.

There are five content areas that can be identified in the National Occupational Analysis:

- · Business and Operations Plan;
- Marketing and Sales;
- · Financial Management;
- · Human Resources; and
- Project Management.

These five areas are consistent with the course content of the builder-renovator training programs in Canada, the United States and Australia, except for Human Resources, which is generally covered by some of the other courses.

Table I compares the regional courses. The majority of sub-blocks were totally covered by all of the regions in this study. Those sub-blocks covered to a lesser extent include:

- A4, Development of an Operating Plan;
- BI, Business Management;
- B2, Marketing and Sales;
- B5, Project Management;
- C2, Monitoring and Evaluation of the Marketing and Sales Plan; and
- C4, Monitoring and Evaluation of the Operating Plan.

### PROPOSED PAN-CANADIAN MODEL

The proposed harmonized, pan-Canadian model is based on the National Occupational Analysis for the New Home Builder and Residential Renovation Contractor, with the addition of common provincial course elements that deal with skills either not currently listed or adequately referenced in the OA. Analyses of Canadian regional builder-renovator certification programs and programs in the United States and Australia were used to develop this model. It will present a standard by which individual provincial (regional) training efforts can better align their courses to the National OA. The content is a base minimum; regions can go beyond as desired for their own needs.

The proposed harmonized pan-Canadian model includes:

- A definition of five content areas with all tasks contained in the National Occupational Analysis appropriately allocated to the content areas.
- An exam in each of the five content areas that would be used to measure the knowledge of those who are eligible to challenge the exams. (Note: the exam was not developed as part of this work but would form part of the pan-Canadian model)

 Table I
 Comparison of regional courses.

Occupational analysis		B.C.		Alberta		Saskatchewan		Manitoba		Quebec		Atlantic	
Sub-Block	% of tasks covered	% of subtasks covered	% of tasks covered	% of subtasks covered	% of tasks covered	% of subtasks covered	% of tasks covered	% of subtasks covered	% of tasks covered	% of subtasks covered	% of tasks covered	% of subtasks covered	
A: Business A1: Definition of business goals	0	0	100	100	100	53	100	100	100	100	100	100	
A2: Development of marketing & sales plans	100	100	100	100	60	28	100	100	100	70	100	100	
		100	100	100	100	90	100	100	100	100	100	100	
A4: Development of an operating plan	50	52	100	100	63	62	100	100	75	81	63	67	
A5: Development of a human resource plan	100	100	100	100	100	92	100	100	100	100	100	100	
B1: Business management	80	81	100	100	90	85	100	100	100	98	80	78	
B2: Marketing and sales	100	100	100	100	56	43	100	100	22	24	100	100	
B3: Financial management  B4: Human resource management  B5: Project management  B6: Project supervision	63	65	100	100	88	83	100	100	100	100	100	100	
	50	24	100	100	100	79	100	100	100	100	100	100	
	94	90	100	100	76	77	94	95	76	82	94	95	
	100	97	100	100	100	73	100	97	100	100	100	97	
B7: Client relations	100	100	100	100	100	63	100	100	100	100	100	100	
C1: Monitoring and evaluation of objectives	0	0	100	100	100	100	100	100	100	100	100	100	
C2: Monitoring and evaluation of marketing and sales plans	100	100	100	100	29	19	100	100	14	10	100	100	
C3: Monitoring and evaluation of the financial plan  C4: Monitoring and evaluation of the operating plan	100	94	100	100	100	94	100	100	100	100	100	100	
	0	0	100	100	50	47	100	100	100	100	100	95	
C5: Monitoring and evaluation of the human	47	72	100	100	100	92	100	100	100	100	100	100	
	Al: Definition of business goals A2: Development of marketing & sales plans A3: Development of a financial plan A4: Development of an operating plan A5: Development of an operating plan A5: Development of a human resource plan B1: Business management B2: Marketing and sales B3: Financial management B4: Human resource management B5: Project management B6: Project supervision B7: Client relations C1: Monitoring and evaluation of objectives C2: Monitoring and evaluation of marketing and sales plans C3: Monitoring and evaluation of the financial plan C4: Monitoring and evaluation of the operating plan C5: Monitoring and evaluation	Sub-Block % of tasks covered A1: Definition of business goals A2: Development of marketing & sales plans 100 A3: Development of a financial plan 100 A4: Development of an operating plan 50 A5: Development of a human resource plan 100 B1: Business management 80 B2: Marketing and sales 100 B3: Financial management 50 B4: Human resource management 50 B5: Project management 94 B6: Project supervision 100 B7: Client relations 100 C1: Monitoring and evaluation of objectives 0 C2: Monitoring and evaluation of the financial plan 100 C4: Monitoring and evaluation of the financial plan 100 C5: Monitoring and evaluation of the operating plan 0 C5: Monitoring and evaluation of the operating plan 0 C5: Monitoring and evaluation of the operating plan 0 C5: Monitoring and evaluation of the operating plan 0 C5: Monitoring and evaluation of the human	Sub-Block	Sub-Block % of tasks subtasks covered covered covered covered subtasks covered	Sub-Block	Sub-Block         % of tasks covered         % of subtasks covered         % of tasks covered         % of subtasks covered         % of subtasks covered         % of tasks covered         % of subtasks covered         % of subtasks covered         % of tasks covered         % of tasks covered         % of subtasks covered         % of tasks covered <t< td=""><td>Sub-Block         % of tasks covered c</td><td>Sub-Block         % of tasks subtasks subtasks subtasks subtasks subtasks subtasks subtasks covered co</td><td>  Sub-Block</td><td>  Sub-Block   Sub-Block   Sub-Block   Sub-Block   Sub-Block   Covered   Cove</td><td>  Sub-Block   Sub-</td><td>  Sub-Block   Notation   Sub-Block   Notation   Sub-Block   Notation   Sub-Block   Notation   Sub-Block   Notation   Sub-Block   Sub-Block</td></t<>	Sub-Block         % of tasks covered c	Sub-Block         % of tasks subtasks subtasks subtasks subtasks subtasks subtasks subtasks covered co	Sub-Block	Sub-Block   Sub-Block   Sub-Block   Sub-Block   Sub-Block   Covered   Cove	Sub-Block   Sub-	Sub-Block   Notation   Sub-Block   Notation   Sub-Block   Notation   Sub-Block   Notation   Sub-Block   Notation   Sub-Block   Sub-Block	

- A Candidate Assessment Review (CAR) exam, which
  measures knowledge and experience in each of the five
  content areas and is used to determine the content
  areas in which candidates require training. CAR is
  a form of PLAR (Prior Learning and Assessment
  Recognition), which is a process of identifying, assessing
  and recognizing what a person knows and can do.
- The designations Canadian Graduate Builder (CGB) and Canadian Graduate Renovator (CGR) to be granted to those who successfully challenge the exams in each of the five content areas and have gained sufficient business experience.
- Suggested criteria for companies that wish to hire or employ people with CGB or CGR designations.

Validation of the proposed harmonized pan-Canadian model was achieved through a focus group and key informant interviews. As a result the model was evolved and then endorsed.

### IMPLICATIONS FOR STAKEHOLDERS

A harmonized pan-Canadian model, based on the National Occupational Analysis, would establish a core level of tasks/skills required by the professional homebuilder. Builders and renovators would be able to compare their knowledge level (credentials) with that of other builders and renovators across Canada—on a fair and equitable basis. Regional/provincial programs would have the confidence that their designations are at least as good as they are in any other region/province of Canada.

### CONCLUSION

The analysis indicated that the builder and renovator training courses in all of the Canadian regions in the study are similar and that they are generally aligned with the National Occupational Analysis.

The current operations of builder and renovator certification programs in Canada varies from region to region; however, in terms of courses and requirements, there are several common characteristics.

The following next steps were proposed by the researchers:

- Begin the process to develop Canadian Graduate Builder or Canadian Graduate Renovator (CGB or CGR) exams and implement a Candidate Assessment Review (CAR) exam and process.
- 2. Recognize that the pan-Canadian model is not considered a national program but a common standard that can be voluntarily adopted by provincial organizations.
- 3. The Occupational Analysis for New Home Builder and Residential Renovation Contractor be reviewed against the CGB and CGR exams to identify gaps, that is, capture new content not included in the Occupational Analysis, and to clarify its scope and revise accordingly.
- 4. Develop courses suitable for use in all areas of Canada, for example, Residential Construction Supervisor.
- 5. Implement a process whereby an annual updating session could be developed on behalf of the regions and provinces.
- 6. Set up a discussion to determine whether community colleges should be given access to the CGB or CGR exam to support any certification programs that the colleges may decide to create and offer.
- 7. Set up a discussion regarding the possibility of receiving college credits towards a college diploma by means of the model program.
- Set up a discussion regarding the possibility of including the competencies of this model program into a single, comprehensive, skills database for technicians and technologists.

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### Housing Research at CMHC

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