

Saskatchewan Masonry Training Centre of Excellence and Western Training Improvement Coordinator Business Plan

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Saskatchewan Masonry Industry Training Centre/ Western Training Improvement Coordinator Business Plan

Brief Description

The Masonry Industry in Saskatchewan and the Prairie Region as a whole has been working for several years to address various Human Resource issues at the national level. The Saskatchewan Masonry Institute (SMI) in partnership with Local 1 of the International Union of Bricklayers and Craftworkers (IUBAC) sought funding from Saskatchewan Learning and the Department of Western Economic Diversification to improve the training and development of the workforce, in Saskatchewan and across the Prairie Region

Employers in the masonry industry face a serious, long-term shortage of the work force skills they need to compete and expand. To meet this challenge requires ramping up the number of apprentices trained and providing upgrade training for journeypersons in the industry. The training currently available to the industry falls short of meeting the industry's needs, especially in delivering certified (Red Seal) workers, and the overall number of entrants.

The business plan originally focused on the feasibility of a Regional Training Centre, serving the Prairie Provinces. The concept was refined during the course of the investigation to reflect the perspectives of the masonry industry in individual provinces. For the Prairie Region as a whole the concept of a Training Improvement Coordinator was developed, while for Saskatchewan a feasibility assessment of a smaller training facility was conducted.

The Training Improvement Coordinator is a role that would serve Manitoba, Saskatchewan and Alberta to assist industry with various initiatives focused on supporting and improving the training for apprentices and acting as an industry liaison with various government agencies, and attract new entrants.

The Saskatchewan Masonry Training Centre feasibility assessment provides the industry with a framework to evaluate the opportunity of operating its own training facility. This includes evaluating building and operating their own facility or renting a facility for training.

This document is divided into two main sections. Section one is the business plan for the Saskatchewan Masonry Training Centre of Excellence, while Section two provides the framework for the role of Training Improvement Coordinator for the Prairie Region.

Executive Summary

Section One of this binder presents the business plan for the Saskatchewan Masonry Industry Training Centre of Excellence. It provides a review of the objectives, an economic overview of the industry and the challenges it faces. Findings reveal the need for training more skilled workers to be able to maintain and grow the workforce to meet the industry's needs. The business plan includes the rationale for various training models which were considered and a financial analysis of sustaining an industry operated training centre.

Section Two pertains the concept of creating a position for a Western Training Improvement Coordinator.

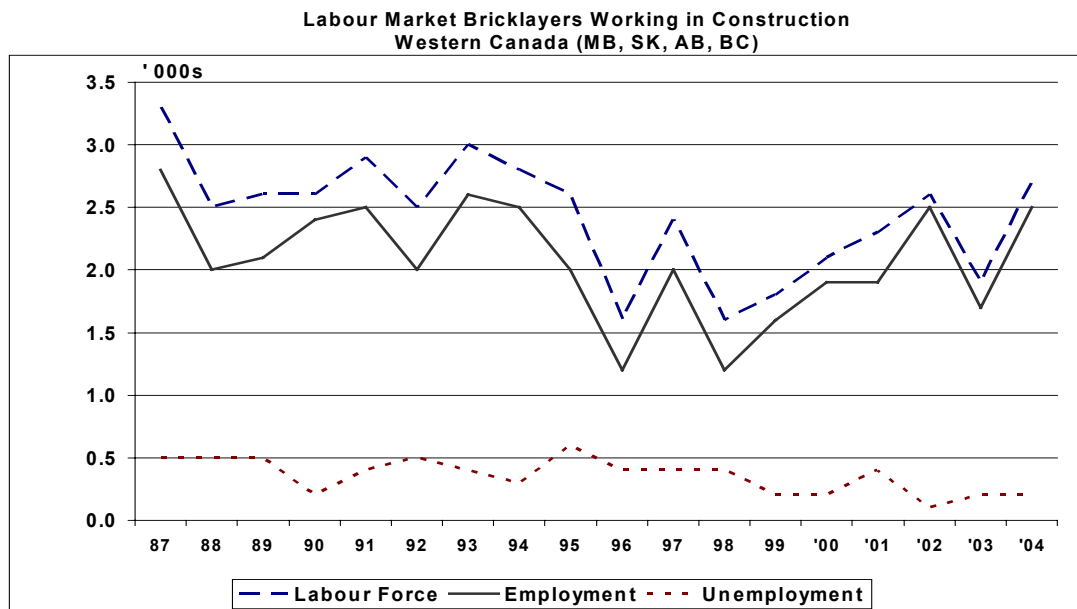
The following core values should define a training and certification program for the trades. The system must:

- Balance the benefits of providing specific skills needed by employers with the benefits of skill breadth to workers seeking employment.
- Meet the emerging need to replace the large number of tradespeople who will retire between 2005 and 2013.
- Address the escalating cost of training by establishing common programs and promoting mobility as well as securing more funding for training.
- Limit the costs of business cycles and the periodic loss of skills to other industries.
- Fill vacant jobs quickly with locally qualified workers, or if none are available, with workers from other regions or provinces.
- Recognize the priority of providing long term and secure employment for Canadian workers before turning to workers from other countries.
- Offer fair and efficient prior learning assessment and recognition to promote mobility of qualified workers.

A review of labour market conditions reveals the extreme cyclical risks for workers in the trades and describes how the recession in the 1990s reduced the available workforce of skilled trades. The need to rebuild this group is set out with reference to expected growth in the market and the Saskatchewan Masonry industry plans to regain market share. Industry must also address the need to train new entrants to replace retiring Baby Boomers over the next ten to twenty years.

These findings are consistent with reports of shortages of bricklayers during the peak summer season in many regional markets across Canada. These reported shortages are related to the major loss of experienced workers during the recession and the slow rate of return during the recovery. The consequence is a shortage of available workers with any experience in the trade and a more severe shortage of workers with special skills.

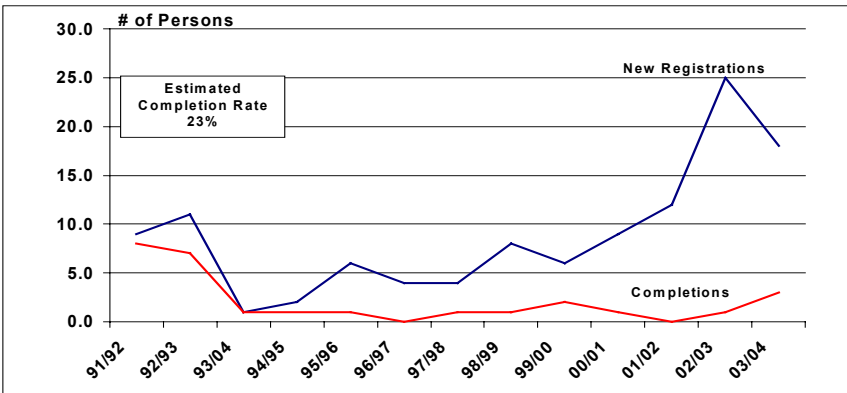
Trends in the Labour Market, 1987 to 2004



In summary, the masonry industry in the Prairie Provinces must plan to meet the increased demand for between 495 and 635 bricklayers over the next decade. Saskatchewan requirements are estimated at 55 to 85 bricklayers. The lower number allows for the replacement of retiring workers and a 1% annual trend growth in construction activity. The higher demand level represents replacement workers, growth in construction activity and masonry capturing a larger share of the market.

Targets described above are better understood with reference to the recent low levels of training. Apprenticeship statistics for Saskatchewan shows less than 5 completions per year for bricklayers, since the early 1990's. The 2001 Census data shows that Saskatchewan has the lowest certification rate of the Prairie Provinces at 39%, while Alberta and Manitoba are at 54% and 63% respectively. Saskatchewan also has to contend with a strong economic climate in Alberta, which may draw workers out of province.

Bricklayer Apprenticeship Statistics 1991 – 2004 - Saskatchewan



The Saskatchewan masonry stakeholders identified several areas that must be addressed immediately, including:

- Getting people into the training system.
- Significant drop out/discontinuation rates of apprentices.
- Low rate of certification in the workforce.
- Issues related to the Inter-Provincial/Red Seal (IP) examination.
- Apprentices falling "between the cracks".
- Engaging more employers in training.
- Effectiveness of on-the-job training.
- Improvements to curriculum – mobility of apprentices.
- Avoid duplication of efforts.
- Manage risk to training programs

Four models of training delivery were developed by industry as a vehicle to address the issues listed above.

1. Regional Training Centre

This was the original premise for the study. It was a concept developed to address the aforementioned issues. A financial model was created for this model and discussed with the labour and employer representatives from all three provinces.

2. Satellite Training System with Training Improvement Coordinator. Saskatchewan develops new industry-owned facility.

This model was developed to take into consideration that provinces outside of Saskatchewan may not wish to change their current system of training, but would be interested in improved coordination of activities across the Prairies. The second version of this model would provide for the rental of training facilities.

3. Saskatchewan Masonry Industry Works with SIAST to Improve Training System

This model would focus on the Training Improvement Coordinator Role and Saskatchewan to improve it's own system through existing delivery mechanisms.

4. Training system continues to operate as is, with industry in each province making improvements independent of each other

This model was reviewed as a fall back position, if nothing changes.

The Masonry Industry in Saskatchewan has a long history of working with SIAST to meet its demand for skilled workers. In the past, this has been a mostly successful relationship and there is great potential for the future. However, in recent years the performance of the program as well as the nature of the relationship between industry and SIAST has not been meeting its potential.

The masonry employers have a significant stake in the training of apprentices, the future of the industry depends on having a skilled workforce. The prime objective of masonry contractors is to bid and win masonry jobs. Training apprentices is their responsibility on-site, not in the classroom.

There is still a strong desire to come to work with current training providers to create a new and productive dynamic in the training of apprentices. To do this industry and its training provider must

- Ensure the existing curriculum is fully taught,
- Ensure quality instruction,
- Locate training in proximity to industry support, and
- Over the long-term develop a recognition for trades training by developing a centre of trades training excellence for all trades

Description of Proponent Group And Strength of Partnership

Future Project Proponent: Saskatchewan Masonry Training Centre of Excellence

Saskatchewan Masonry Training Centre of Excellence Fund

<Address>

Phone:

Fax:

Email:

Contacts:

Labour

Clarence Mendernach,
Business Manager
IUBAC Local 1
1601 McAra Street
2nd Floor
Regina, Saskatchewan
S4N 6H4

Phone: 306.359.6356

Fax: 306.347.8543

Email: cmedernach@sasktel.net

Employers

Bob Afseth,
Executive Director,
Saskatchewan Masonry Institute
532 Second Avenue North
Saskatoon, Saskatchewan
S7K 2C5

Phone: 306.665.0622

Fax: 306.665.0621

Email: bob@saskmasonry.ca

Description of Proponent and Related Actors:

This Section describes potential structure and modelling for achieving the goal of developing a Saskatchewan Masonry Training Centre of Excellence. At this point the key elements have not been finalized.

Saskatchewan Masonry Training Excellence Fund:

This model assumes joint contributions between Management and Labour

The Saskatchewan Masonry Excellence Fund would have to be established as a legal trust. It would represent masonry employers, and the members of the International Union of Bricklayers and Allied Craftworkers in industrial-commercial-and-institutional (ICI) and residential sectors of the construction industry in Saskatchewan. It would be funded by the organized sector of the industry.

It would be advised that the Training Trust be incorporated as a Saskatchewan corporation without share capital.

Governance of the Training Excellence Fund would be determined, based on source contributions; ideally it would be *jointly* governed by a Board of Directors, comprising representatives nominated by the employers' organization (i.e., the Saskatchewan Masonry Institute) and representatives nominated by the IUBAC local. The Training Excellence Fund could have either a rotating chair, one term from employers and one term from labour or be co-chaired by a board member representing the employers and a board member representing the union Locals. Pending the appointment of full-time staff, the business affairs of the Training Excellence Fund would be administered by two industry resource personnel – one representing the employers' organization and one representing the union local. Key decisions of the Board of Directors, involving such matters as hiring of a Training Centre Director, approval of the annual operating and financial plan, and approval of agreements with governments for funding would require the support for both a majority of employer directors and a majority of union directors.

Financing of Saskatchewan Masonry Training Excellence Fund:

The Trust Fund would require financing by matching employer and employee contributions based a total of \$0.60 for each hour worked by all masonry employees (based on an average of 195,000 annual hours). The obligation to make these contributions would be set out in the provincial collective agreement between the employers and the union. As such, the obligation on both employers and employees to make these contributions is enforceable under the provincial legislation.

Possible Structure for Training Excellence Fund.

Contributions to the Training Excellence Fund could be determined *subsequent* to negotiation of the collective agreement between the Unionized masonry employers and the IUBAC. In other words, the hourly employer contributions (\$0.30/hour) would not be a re-allocation of the agreed wage package, but are an addition to the agreed wage package that was incorporated in the provincial collective agreement by an amendment to that agreement. This would demonstrate the high degree of support among employers for the training objectives of the Saskatchewan Masonry Training Excellence Fund.

Annual contributions to the Training Excellence Fund would be approximately \$117K, equally divided between employers and employees.

Saskatchewan Masonry Training Centre:

The Saskatchewan Masonry Training Excellence Fund (TEF) will construct, own and operate the Saskatchewan Masonry Training Centre of Excellence (SMTCE). The land, building, machinery and equipment of the SMTCE will be wholly owned assets of the TEF. Curriculum materials and any other intellectual property developed by the SMTCE also will be wholly owned assets of the TEF.

If it is determined to rent facilities the TEF will assume the responsibility for rent and operating costs.

Saskatchewan Masonry Institute (Employers):

The Saskatchewan Masonry Institute (SMI) was established in 1978. The unionized contractor members of SMI are represented by the Construction Labour Relations

Association of Saskatchewan in labour negotiations. The current agreement runs from May 2005 to 2008 and includes ICI and refractory sectors of the masonry industry.

International Union of Bricklayers and Allied Craftworkers (IUBAC):

The IUBAC, Local 1 represents approximately 150 unionized bricklayers in Saskatchewan. The IUBAC is the employee bargaining representative.

Proposed:

Strength of Partnership and Central Role of Employers:

1. *The employer and employee partners have each legally bound themselves to contribute equally to the Saskatchewan Masonry Training Excellence Fund at a rate which will generate approximately \$117K in contribution revenues annually.*
2. *The employer and employee partners have made their contribution obligations enforceable by amending their collective agreement to specify the contributions. Under the Saskatchewan Labour Relations Act, this makes the contributions enforceable through an order of the Saskatchewan Labour Relations Board.*

The Construction Industry Labour Relations Act, 1992

The Construction Industry Labour Relations Act, 1992 provides for province-wide negotiation of agreements and for representation of unionized contractors in a trade division by an employers' organization. The Construction Industry Labour Relations Act was designed to bring about uniform agreements amongst unionized contractors throughout the province.

The Act insures funding is available for collective bargaining, contract administration and industry development. All unionized contractors pay a fee to the employers' organization based on the number of hours worked by unionized employees in Saskatchewan.

3. *The employer partners undertook their contribution obligation after completing negotiations for a province-wide collective agreement. The employer contributions, therefore, do not represent a re-allocation of the negotiated wage package, but are over and above the wage package.*
4. *The Saskatchewan Masonry Training Excellence Fund is founded on the principal of joint governance and equal control on all matters between the employer partners and the union partners. This is reflected in:*
 - *the 50/50 membership on the Board of Directors,*
 - *the 50/50 membership of the Executive Committee*
 - *the appointment of co-chairs from the employer and union Board members,*

- *the appointment of two industry resource persons from the employer and union partners, pending the appointment of a permanent Training Centre Director,*
 - *the by-law provision that key decisions of the Training Excellence Fund require a majority of the employer directors as well as a majority of the employee directors.*
5. *The employer representatives (including participation from the national association: Canadian Masonry Contractors Association), along with the union representatives (including representation from the International Union), are making a substantial and unremunerated commitment of time to the planning and future management for the Saskatchewan Masonry Training Centre.*
 6. *In addition to their specific financial contributions, the SMI (employers) and the IUBAC (union) are contributing the time of their senior staff to serve as industry resource personnel.*
 7. *As well, there is a potential for partnering between International Masonry Institute and the Canada Masonry Centre.*

Description of the Masonry Industry

Masonry contractors employ over 85% of bricklayers.¹ These workers are distributed among most, but not all sectors of construction including:

- New low-rise residential
- New high-rise residential
- Commercial
- Institutional
- Industrial
- Refractory
- Repair and restoration

The National Occupational Analysis (NOA) for bricklayers/stone masons/masons identifies the following areas (blocks) of work:

- Work Related Activities (codes, safety, blueprints, equipment, scaffolding, etc.)
- Masonry Wall and Column System
- Chimneys, Fireplaces, Masonry Heaters and Refractory Materials
- Construction/ Layouts of Masonry Arches
- Restoration
- Ornamental Masonry

The major area of construction where masonry is not used is heavy engineering projects, road building and water/sewer systems. There are special skills and work areas within the trade including stone cutting, refractory work, industrial construction, restoration and repair work and other areas.

4.1 Masonry Contractors

There are over 3,700 contractors with employees in Canada and three quarters of these firms employ four or fewer workers. The Western Provinces of Manitoba, Saskatchewan and Alberta account for 14 percent or 534 contractors.

Data on the number of masonry contractors is based on *Statistics Canada, Canadian Business Patterns (December 2004)*. The major sources of information for the Business Patterns are updates from the Statistics Canada survey program and from Canada Revenue Agency's (CRA) Business Number account files. Included in the Business Patterns are all Canadian businesses which meet at least one of the three following criteria:

- Have an employee workforce for which they submit payroll remittances to CRA; or
- Have a minimum of \$30,000 in annual sales revenue; or

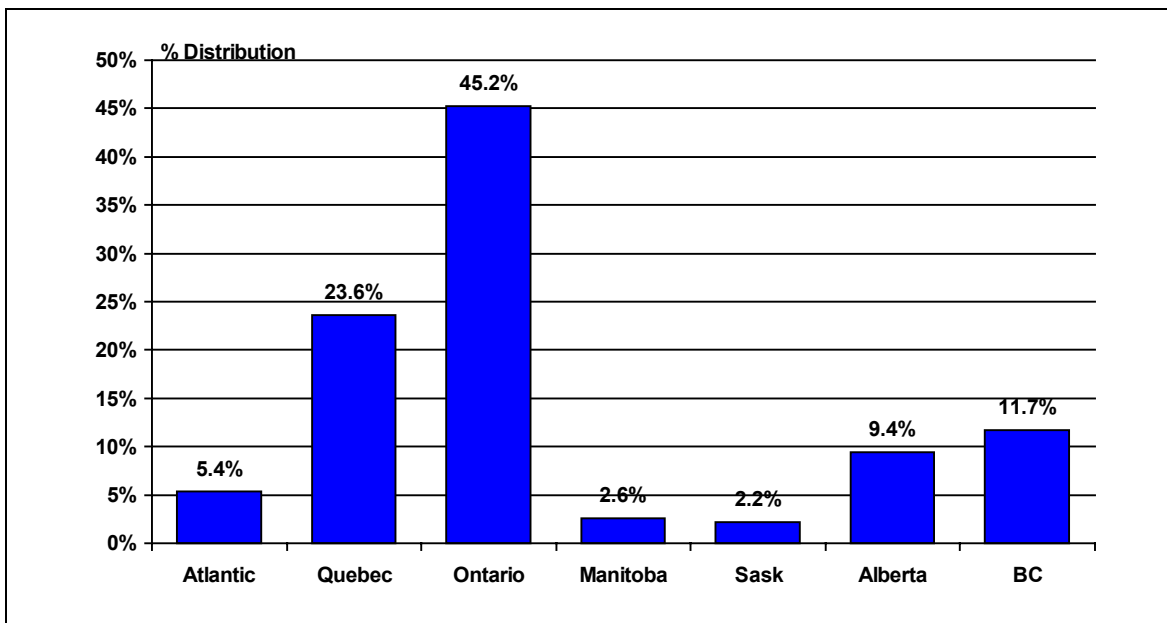
¹ The remaining 15% are persons identifying themselves as bricklayers but working in non-construction industries (manufacturing, etc.).

- Are incorporated under a federal or provincial act and have filed a federal corporate income tax form within the past three years.

Employment size is derived from payroll remittance made by employers on behalf of their employees.

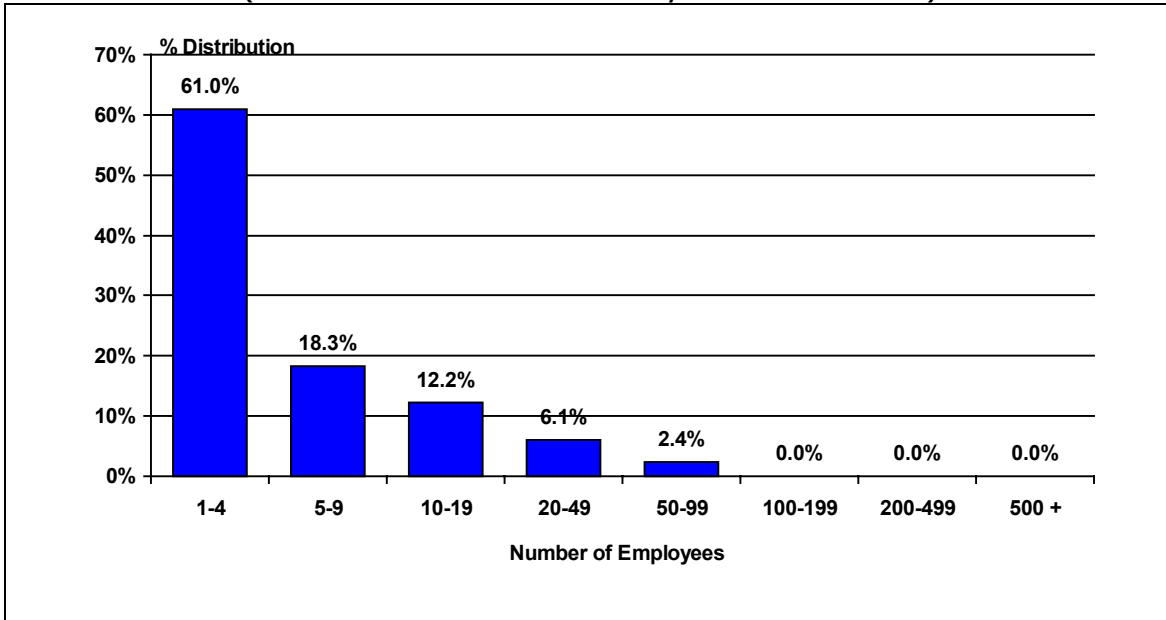
Figures 4.1 to 4.4 set out the size and regional distribution of masonry contractors (excluding self-employed). The purpose of this data is to illustrate the relative size and distribution of masonry contractors.

Figure 4.1:
Distribution of Masonry Contractors by Region (2004)
Estimated Number of Masonry Contractors – 3,700



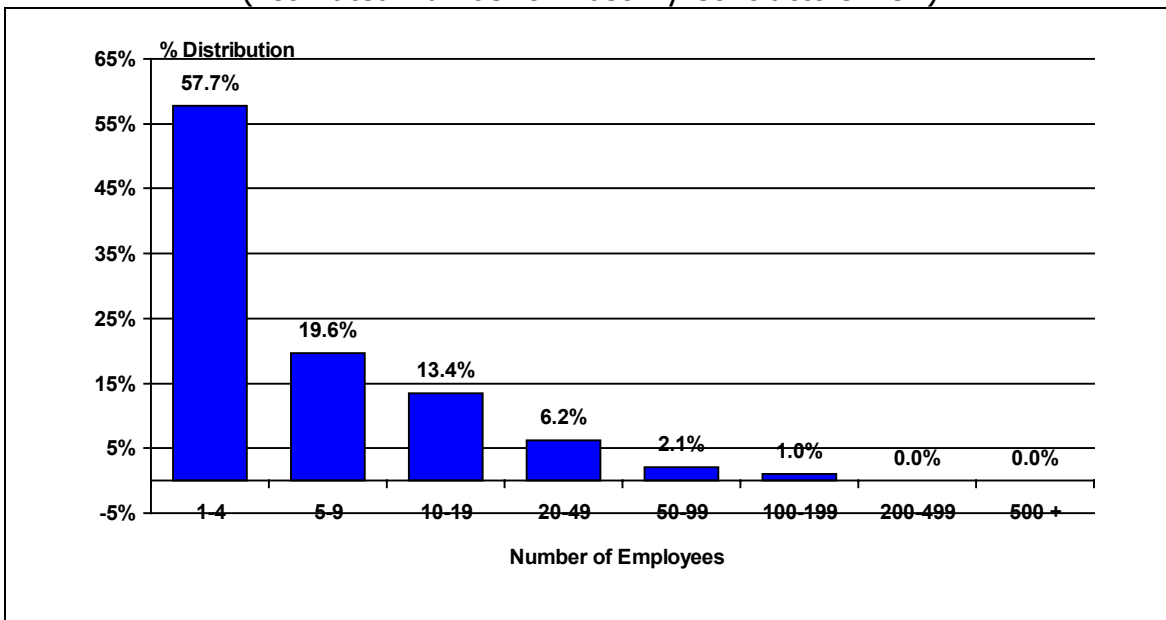
Source: Statistics Canada, Canadian Business Patterns, Business Register (2004)

Figure 4.2
Saskatchewan Masonry Contractors by Number of Employees (2004)
 (Estimated Number of Masonry Contractors – 82)



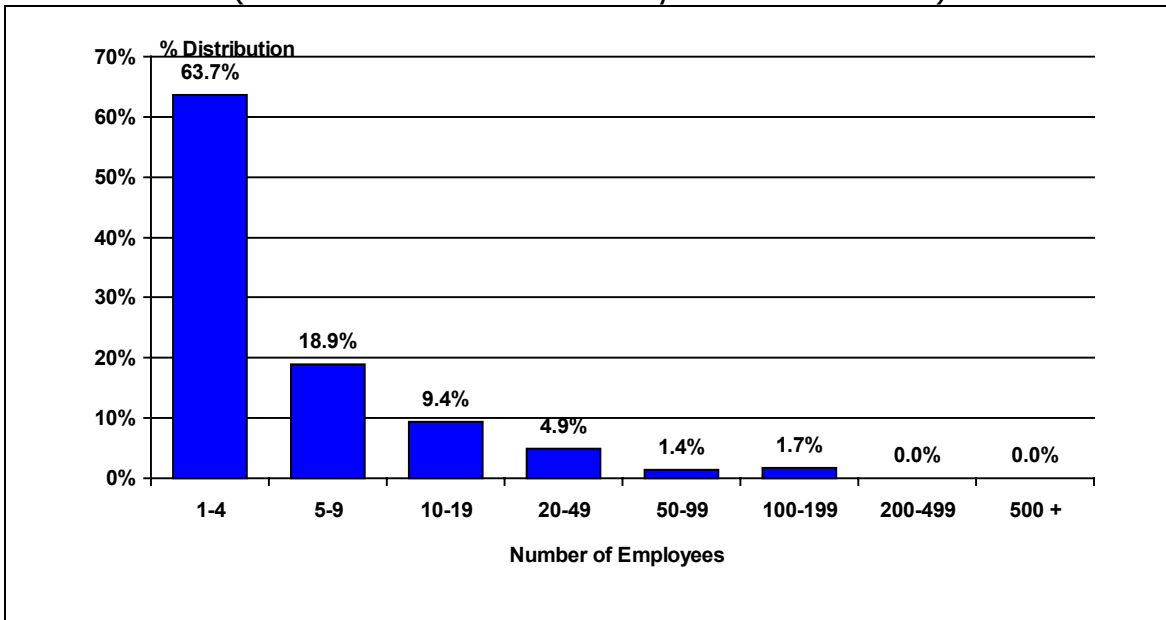
Source: Statistics Canada, Canadian Business Patterns, Business Register (2004)

Figure 4.3
Manitoba Masonry Contractors by Number of Employees (2004)
 (Estimated Number of Masonry Contractors – 97)



Source: Statistics Canada, Canadian Business Patterns, Business Register (2004)

Figure 4.4
Alberta Masonry Contractors by Number of Employees (2004)
 (Estimated Number of Masonry Contractors – 350)



Source: Statistics Canada, Canadian Business Patterns, Business Register (2004)

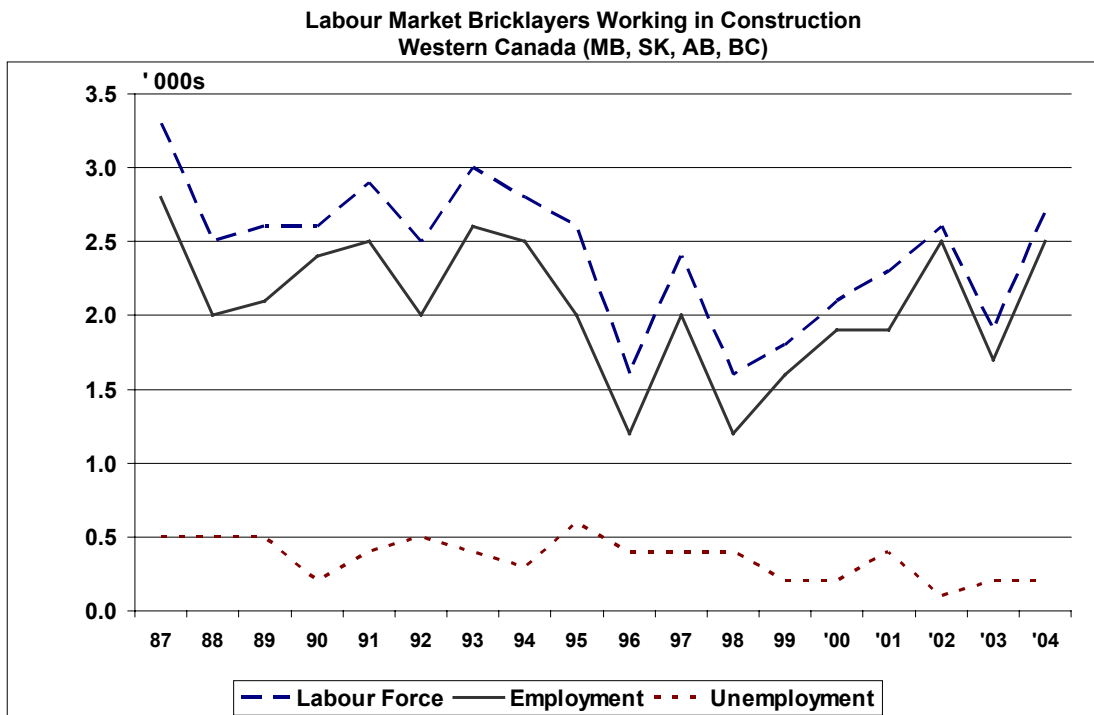
4.2 Labour Force

The bricklaying trades across most regions were hard hit by the recession of the mid 1990s. Exhibit 4.5 tracks the labour force, employment and unemployment rate for Western Canadian bricklayers working in construction for the period 1987 to 2004.

Note: Labour force statistics for Western Canada includes British Columbia. Due to the small sample sizes for bricklayers, individual provincial data could not be compiled for the Prairie Provinces. It is assumed for this analysis that all provinces followed a similar pattern to the western aggregate.

There is a volatile, cyclical pattern with employment dropping by almost 60% during the recession in the early 1990s and then recovering starting in 1997. The recovery, however, is incomplete with just 2,500 employed in 2004, up from the minimum level of 1,200 but still well below the 1987 peak of 2,800.

Exhibit 4.5: Trends in the Labour Market, 1987 to 2004



This pattern is similar to other construction trades, but masonry reports a more cyclical pattern and the extent of the recovery was weaker. This pattern is not shared with overall levels of employment in other construction trades where employment has expanded past previous peaks experienced in the late 1980s.

One implication of these results is that well over half of employed bricklayers were forced out of the trade during the recession (perhaps over 1,500 workers) and just 1,300 have returned to work as the market improved by the late 1990s.

Unemployment, measured as the dotted line at the bottom of Exhibit 4.5, is one indicator of labour market strength. Low unemployment signals a much tighter labour market than the trends noted above might suggest. In particular, in 2002 the number of unemployed bricklayers, as measured by Statistics Canada's Labour Force Survey, fell to a record low annual average of around 100 people. Measured at the monthly, seasonal peak, low unemployment rates point to the limited available workforce and likely shortages in the masonry markets.

These findings are consistent with reports of shortages of bricklayers during the peak summer season in many regional markets across Canada. It is clear that these shortages are related to the major loss of experienced workers during the

recession and the slow rate of return during the recovery. These findings and the results from contractor survey suggest that there is a shortage of available workers with experience in the trade. They also indicate a potential for a more severe shortage as skilled workers leaves the industry due to an aging workforce.

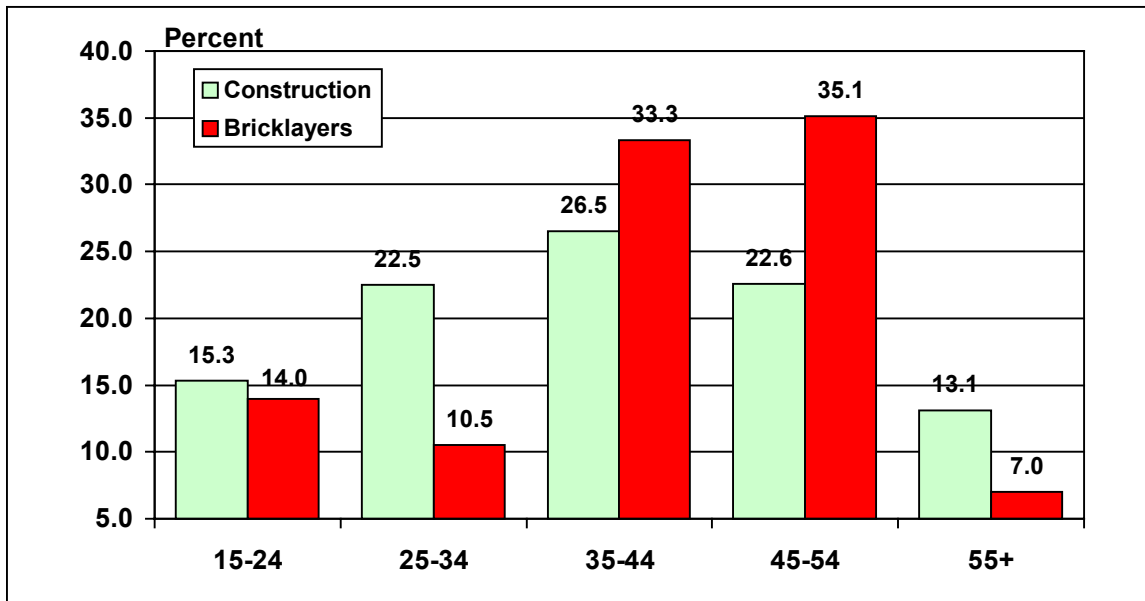
4.3 Demographics

Canada's labour force has a well-known problem related to the high proportion of Baby Boomers in the population. This group, aged 35 to 54, now dominates the demographics and the oldest Boomers are reaching their mid 50s. Human resource planning must anticipate the need to replace this group as it retires over the next twenty years. A more immediate problem is the limited younger population (age 15 to 24) who are now entering the work force. Competition is intensifying to attract this group into most occupations. The construction industry has a slightly older work force and shares these problems with other industries.

Bricklayers and related trades have a more serious version of this problem.

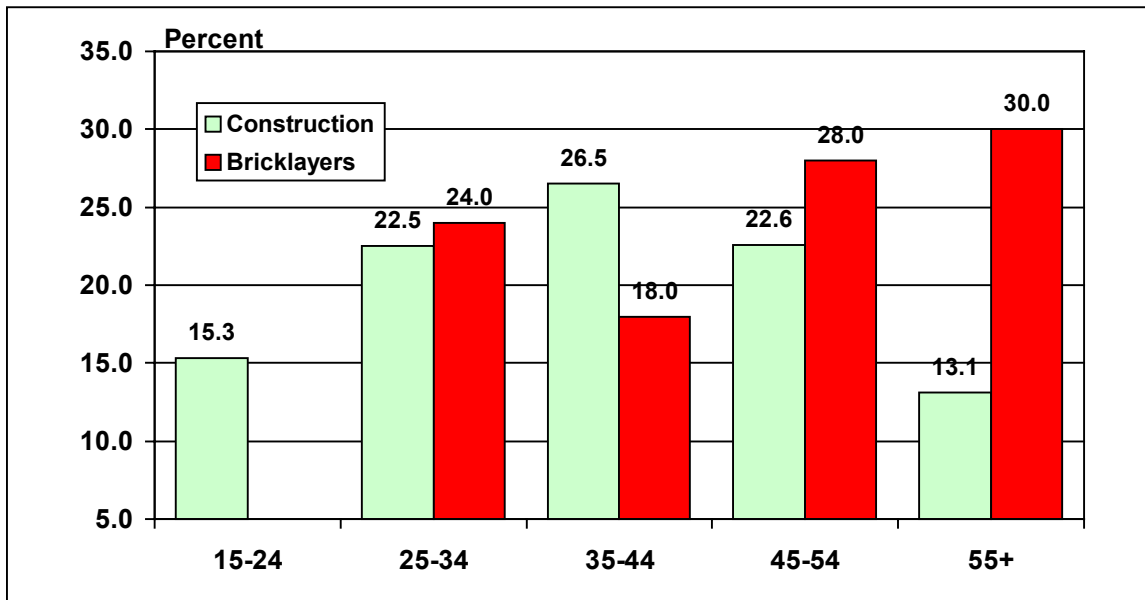
Exhibits 4.6 – 4.8 shows the age distribution of the labour force for bricklayers and all construction-related trades. The key groups are the youngest and oldest. The small proportion in the youngest group represents a recruiting challenge for the trades. The group of boomers aged 35 to 54 represent the problem of retirement that will be an issue starting in 2005 and lasting to 2025.

Exhibit 4.6: 2001 Age Demographics - Saskatchewan



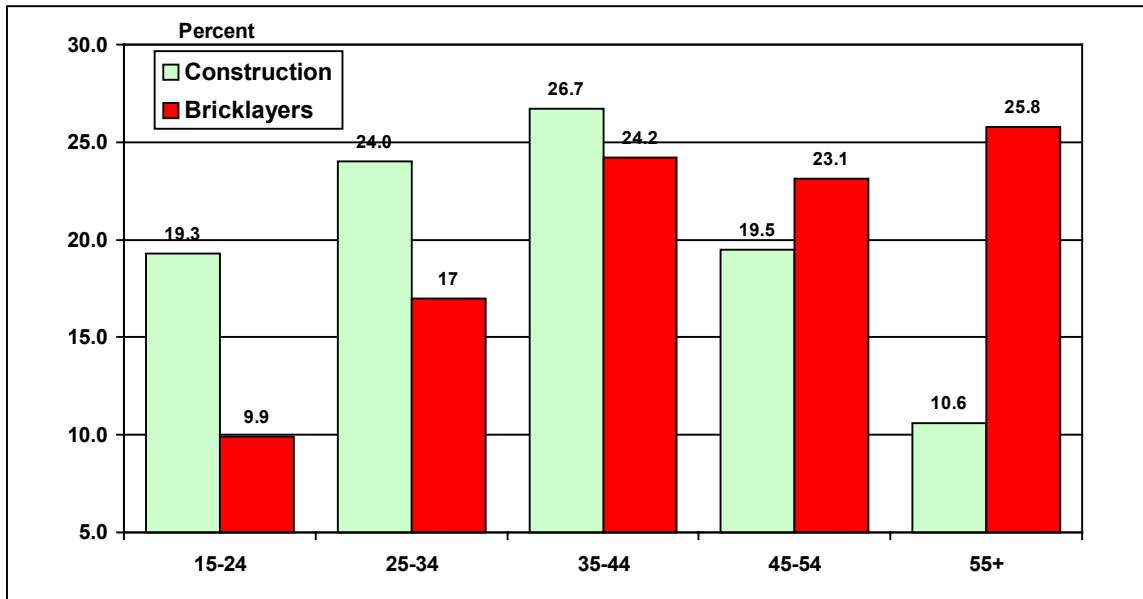
Source: Statistics Canada, 2001 Census

Exhibit 4.7: 2001 Age Demographics - Manitoba



Source: Statistics Canada, 2001 Census

Exhibit 4.8: 2001 Age Demographics - Alberta



Source: Statistics Canada, 2001 Census

Across the 1990s this demographic pattern had a dramatic impact on training and certification. Apprenticeship programs were cut back during the recession and many in the younger group in the voluntary trades did not receive training. The small youth group – now aged between 20 and 30 -- have a lower proportion of certified and trained workers. However, most Baby Boomers were certified when they entered the trades in the 1970 and 80s, and their growing presence meant that the proportion of the workforce that was certified was rising.

The result is that the proportion of the workforce with a post-secondary certification increased across the 1990s – across all trades and provinces. The threat is that these gains will erode as the boomers retire and the new entrants continue to receive less training.

4.4 Training

Weak labour markets and government spending cuts undermined apprenticeship programs in the early to mid 1990s. Unemployment and bankruptcy forced many skilled workers and contractors out of the business. This loss of talent was very costly and the impacts became apparent as the recovery in construction gained momentum in the early 2000s.

Exhibits 4.9 – 4.11, illustrate the decline in the number of new registrations and completions during the mid – 1990s and the resurgence of the apprenticeship programs in the late 1990s with the number of new registrations increasing.

Exhibit 4.9: Bricklayer Apprenticeship Statistics 1991–2004 - Saskatchewan

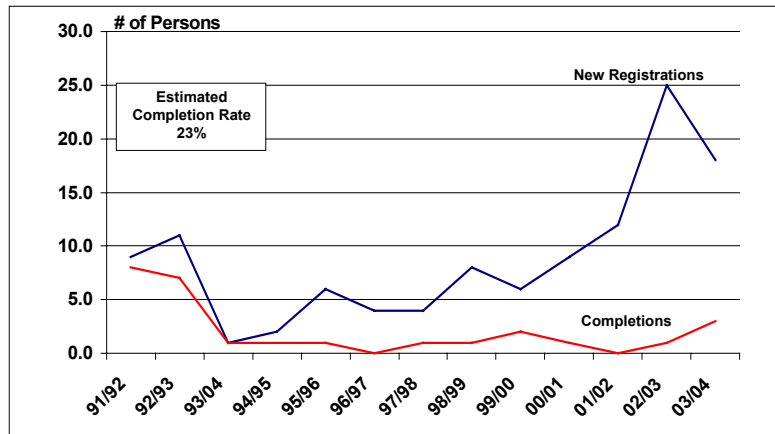


Exhibit 4.10: Bricklayer Apprenticeship Statistics 1991 – 2004 - Manitoba

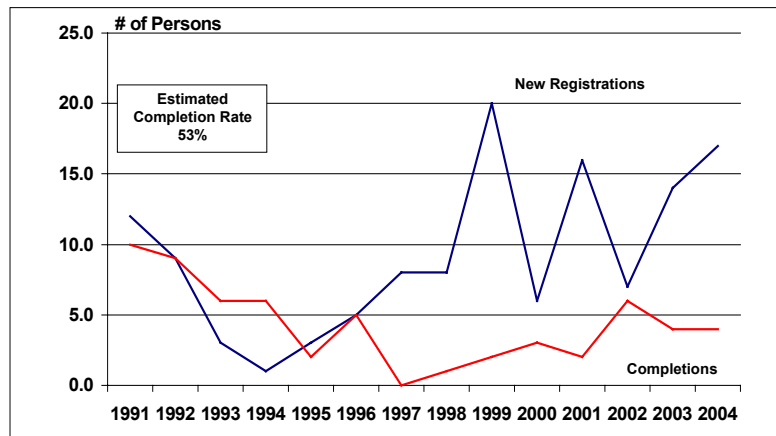
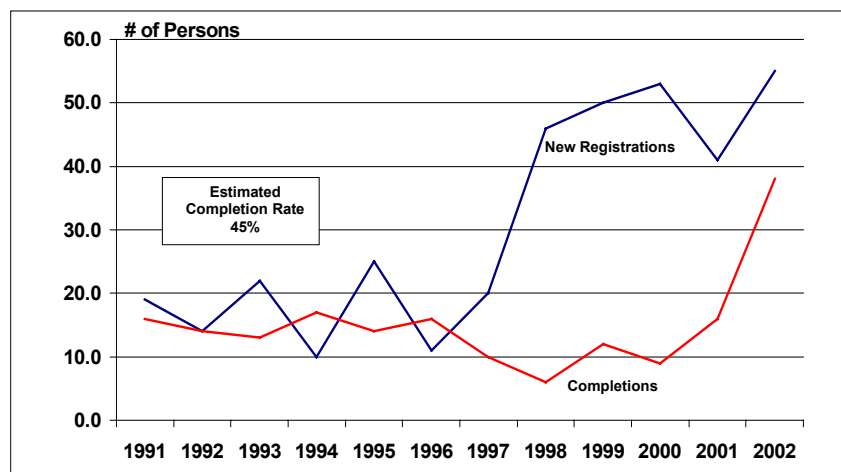


Exhibit 4.11: Bricklayer Apprenticeship Statistics 1991 – 2004 - Alberta



4.5 Economic Overview

This section provides a brief overview of economic conditions that will drive issues faced by the bricklaying trade and masonry contractors over the next decade. The findings presented here are based on research by the Construction Sector Council (CSC)². The CSC has developed labour market information models for each province to assess economic trends and labour market conditions for construction trades across Canada. Only the highlights are presented here. Copies of the provincial reports are available from the CSC website (www.csc-ca.org).

Saskatchewan

A healthy industrial sector and steady housing market will contribute to a fairly stable construction industry. Moderate employment growth is projected for most construction trades over the medium term to 2009. This allows most trades to adjust to increased demand through training and normal recruiting practices.

Economic Outlook

Economic growth as measured by gross domestic product (GDP) is projected to average 2.2% real growth (adjusted for inflation) over the medium term and is expected to drop slightly to average around 2.0 between 2009 and 2013.

² The Construction Sector Council is a national organization created in April 2001 and financed by both government and industry. The CSC is a partnership between labour and business.

The major sources of economic growth are export and investment. Increased exports in the mining and manufacturing and a recovery in the agricultural sector will contribute to growth over the medium term. Stronger investment performance is projected for agriculture, mining, and transportation and warehousing sectors.

Employment growth for the total economy is projected to average around 1.0% over the forecast period. The unemployment rate increases slightly over the medium term to 5.0% in 2013, as labour force growth exceeds employment growth.

Key provincial indicators are presented in Table 1.

Table 1
Key Economic Indicators – Saskatchewan
(Year over Year % Change)

	2005	2006	2007	2008	2009-13*
Real GDP	2.7	2.3	1.9	1.7	2.0
Consumer Expenditures	2.5	2.4	2.2	1.9	2.2
Government Consumption Expenditures	1.3	1.2	1.5	1.7	1.6
Government Investment Expenditures	1.5	1.4	1.3	1.4	1.4
Business Investment Expenditures	4.9	6.0	0.0	1.7	1.9
Exports	4.3	3.5	3.4	2.4	2.3
Imports	3.0	4.6	3.1	2.5	2.3
Population	0.2	0.5	0.8	0.8	0.7
Employment	1.6	1.5	0.8	0.3	0.9
Labour Force	0.9	1.1	1.1	0.9	0.9
Unemployment Rate (Level %)	4.6	4.2	4.4	4.9	5.0
CPI	1.6	1.6	1.7	1.6	1.5

Source: Construction Looking Forward, Labour Requirements for Saskatchewan from 2005 to 2013, Construction Sector Council (June 2005)

Investment Outlook

Table 2 presents the investment outlook for Saskatchewan. The outlook reports stronger growth in both residential and non-residential construction over the medium term. Over the long term, residential construction declines, while non-residential investment growth continues³.

³ **Construction Looking Forward, Labour Force Requirements for Saskatchewan from 2005 to 2014**, Construction Sector Council (June 2005).

- Residential building investment expenditures have increased over the past few years under stronger household growth, rising incomes, and lower interest rates. New housing investment is projected to peak in 2008.
- Industrial investment is projected to strengthen over the forecast period, as agriculture investment increases and manufacturing investment remains relatively high.
- Commercial building construction grows in line with increased business activity and population growth.
- Institutional and government building construction investment is projected to rise faster than population to facilitate the construction of additional infrastructure, including health care facilities.
- Engineering construction expenditures rise in the short term before declining to 2008. Increased mining, utility, and government investment are the major drivers.

Table 2
Investment Expenditures - Saskatchewan

	2003	2004	2005	2006	2007	2008	2009-13*
Residential Investment (97 \$Millions)	1034	1098	1083	1160	1228	1319	1340
<i>% Change</i>	9.5	6.2	-1.4	7.1	5.8	7.5	0.3
New Housing	367	409	380	442	495	573	524
<i>% Change</i>	17.3	11.4	-7.0	16.3	12.0	15.7	-1.7
Renovations	667	689	702	718	732	746	816
<i>% Change</i>	5.7	3.3	2.0	2.2	2.1	1.9	1.8
Non-Residential Investment (97 \$Millions)	5808	6230	6577	6923	6865	6903	7690
<i>% Change</i>	3.1	7.3	5.6	5.3	-0.8	0.6	2.2
Engineering Construction	2036	2139	2325	2518	2501	2403	2590
<i>% Change</i>	-9.8	5.0	8.7	8.3	-0.7	-3.9	1.6
Building Construction	630	672	701	735	737	764	860
<i>% Change</i>	-3.3	6.6	4.4	4.8	0.3	3.7	2.4
Industrial Construction	212	242	266	292	287	308	350
<i>% Change</i>	13.7	13.9	9.8	9.9	-1.9	7.5	2.7
Commercial Construction	165	171	171	173	176	176	201
<i>% Change</i>	-7.7	4.0	0.1	0.9	1.4	0.3	2.7
Institutional & Government Construction	302	308	314	319	324	329	358
<i>% Change</i>	-9.7	1.9	1.8	1.7	1.6	1.6	1.7

*Growth rates refer to average period growth, levels to the 2013 value

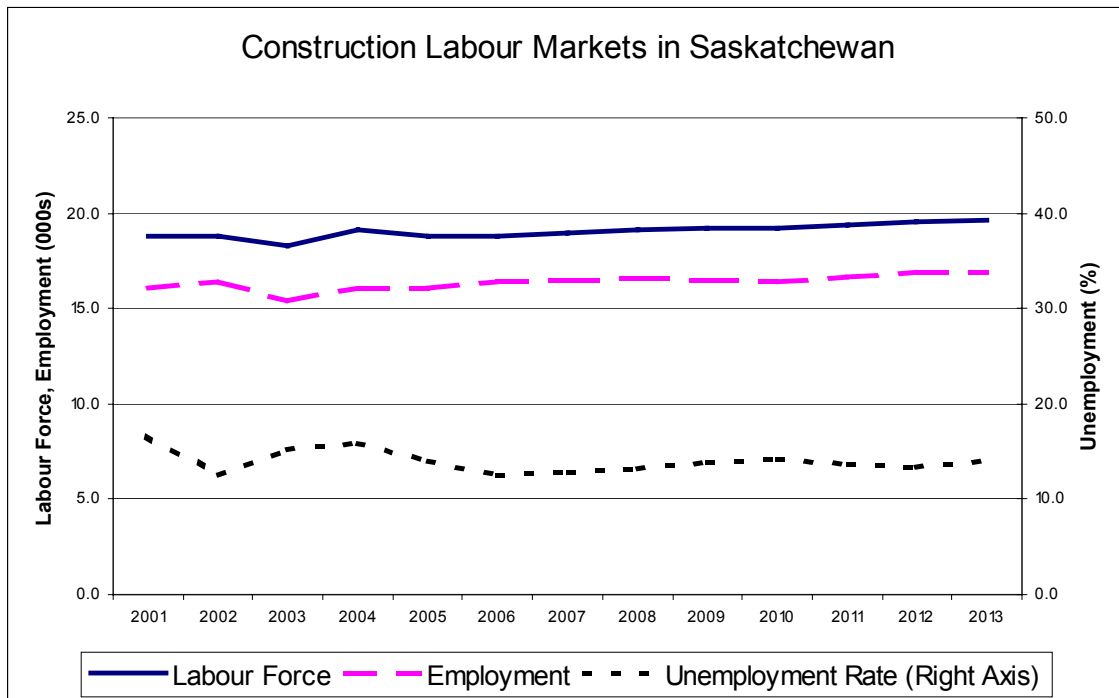
Source: **Construction Looking Forward, Labour Requirements for Saskatchewan from 2005 to 2013**, Construction Sector Council (June 2005)

Labour Force and Employment Outlook

The overall state of the labour market for construction trades is presented in Figure 1, which shows labour force, employment, and the unemployment rate.

The labour market is projected to be relatively stable over the forecast period. The available labour force is expected to gradually adjust to the construction demand requirements and the unemployment rate for construction trades will average around 14 percent.

Figure 1



In terms of labour market conditions, the CSC’s Construction Looking Forward report includes an assessment of the degree of tightness for selected construction trades – how difficult it is to get workers to fill available jobs. The labour market condition is rated on a ranking system with numbers ranging from 1 (excess supply) to 5 (intense competition for qualified workers). The degree of market tightness rises with the number assigned.

For the bricklaying trades, the CSC reports an average of Rank 3 over the forecast period:

The availability of workers in the local market may be limited by large projects, plant shutdowns or other short term increases in demand. Similar or weaker conditions exist in adjacent markets, however mobility is an option. Employers may need to compete to attract needed workers. Established patterns of recruiting and mobility are sufficient to meet job requirements.

The market ranking depends on the historical pattern of unemployment for the trade – both at the summer peak of activity and annual averages. The assessment also included the extent of apprenticeship training, potential migration from other provinces and the input gathered from the Saskatchewan LMI committee through an industry survey. Bricklayer was one of the several trades identified by industry stakeholders as reporting a concern about trade shortages. Other trades included concrete finishers, crane operators, heavy equipment operators, heavy equipment mechanics, plasterers and drywall installers, plumbers, refrigeration and air conditioning mechanics, roofers and sheet metal workers.

Manitoba

Economic Outlook

Table 3
Key Economic Indicators – Manitoba
 (Year over Year % Change)

	2005	2006	2007	2008	2009-13*
Real GDP	2.8	2.5	2.6	2.3	1.5
Consumer Expenditures	2.2	2.7	2.8	2.8	2.0
Government Consumption Expenditures	1.8	1.8	1.8	2.0	1.6
Government Investment Expenditures	11.7	6.9	1.9	-1.2	-0.3
Business Investment Expenditures	5.2	5.6	8.6	5.2	-1.2
Exports	3.7	1.9	1.9	1.8	1.7
Imports	2.8	3.1	3.4	3.0	1.4
Population	0.6	0.6	0.7	0.8	0.4
Employment	1.7	1.8	1.5	1.2	0.5
Labour Force	1.3	1.3	1.3	1.3	0.7
Unemployment Rate (Level %)	4.9	4.5	4.3	4.4	5.3
CPI	1.6	1.6	1.7	1.6	1.5

Source: Construction Looking Forward, Labour Requirements for Saskatchewan from 2005 to 2013, Construction Sector Council (June 2005)

Investment Outlook

Table 4
Investment Expenditures - Manitoba

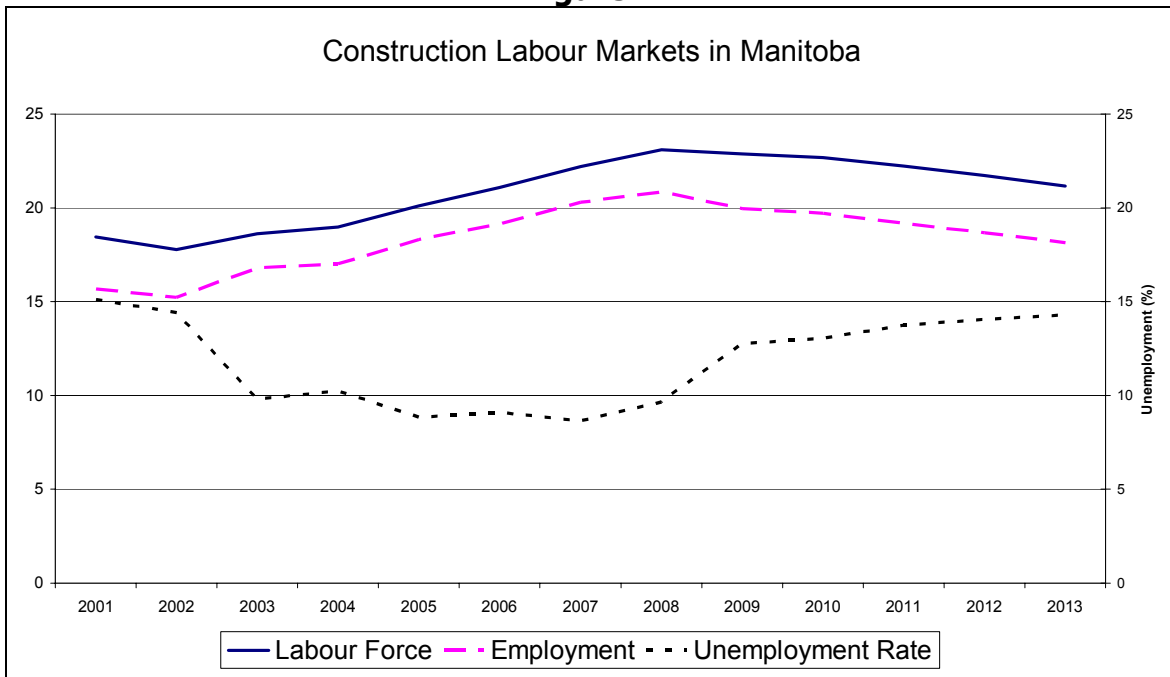
	2003	2004	2005	2006	2007	2008	2009-13*
Residential Investment (97 \$Millions)	1256	1211	1293	1323	1448	1518	1295
<i>% Change</i>	6.7	-3.6	6.8	2.3	9.5	4.8	-3.1
New Housing	495	432	498	512	618	664	371
<i>% Change</i>	11.3	-12.8	15.4	2.8	20.8	7.4	-10.7
Renovations	761	779	795	811	829	853	924
<i>% Change</i>	3.8	2.3	2.0	2.0	2.3	2.9	1.6
Non-Residential Investment (97 \$Millions)	5197	5438	5781	6175	6621	6893	6652
<i>% Change</i>	4.3	4.6	6.3	6.8	7.2	4.1	-0.7
Engineering Construction	807	876	1053	1194	1354	1455	1145
<i>% Change</i>	-2.6	8.6	20.2	13.4	13.4	7.4	-4.6
Building Construction	853	901	963	1019	1043	1048	1058
<i>% Change</i>	2.9	5.6	6.9	5.8	2.4	0.4	0.2
Industrial Construction	189	212	244	271	282	279	266
<i>% Change</i>	-24.1	12.2	14.9	11.3	3.9	-1.2	-0.9
Commercial Construction	306	323	313	314	318	328	346
<i>% Change</i>	0.7	5.4	-3.0	0.3	1.1	3.3	1.1
Institutional & Government Construction	355	363	403	431	441	438	443
<i>% Change</i>	12.5	2.3	11.1	6.8	2.3	-0.5	0.3

*Growth rates refer to average period growth, levels to the 2013 value

Source: **Construction Looking Forward, Labour Requirements for Saskatchewan from 2005 to 2013**, Construction Sector Council (June 2005)

Labour Force and Employment Outlook

Figure 2



Alberta

Economic Outlook

Table 5
Key Economic Indicators – Alberta
 (Year over Year % Change)

	2005	2006	2007	2008	2009-13*
Real GDP	3.0	3.5	4.1	2.8	2.4
Consumer Expenditures	3.4	4.3	4.8	3.9	3.0
Government Consumption Expenditures	3.2	2.4	2.6	2.7	2.3
Government Investment Expenditures	7.5	8.5	6.4	1.3	1.8
Business Investment Expenditures	6.6	6.9	3.0	1.9	-0.2
Exports	2.7	2.8	4.9	2.8	3.0
Imports	3.9	4.9	4.7	3.4	2.2
Population	1.3	1.4	1.5	1.6	1.0
Employment	2.0	1.5	2.4	1.2	0.9
Labour Force	1.7	1.7	1.9	1.8	1.0
Unemployment Rate (Level %)	4.3	4.5	4.0	4.5	4.7
CPI	1.6	1.6	1.7	1.6	1.5

Source: Construction Looking Forward, Labour Requirements for Saskatchewan from 2005 to 2013, Construction Sector Council (June 2005)

Investment Outlook

Table 6
Investment Expenditures - Alberta

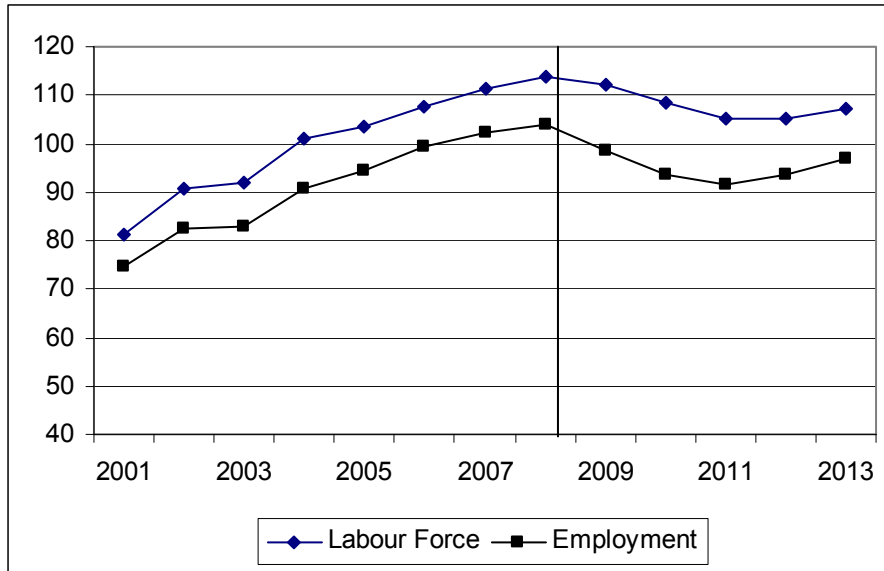
	2003	2004	2005	2006	2007	2008	2009-13*
Residential Investment							
(97 \$Millions)	6288	6105	5638	5620	5742	5962	4945
<i>% Change</i>	1.2	-2.9	-7.7	-0.3	2.2	3.8	-3.6
New Housing	4272	3981	3449	3366	3388	3525	2231
<i>% Change</i>	-0.4	-6.8	-13.4	-2.4	0.7	4.1	-8.6
Renovations	2016	2124	2190	2253	2354	2436	2714
<i>% Change</i>	4.6	5.4	3.1	2.9	4.4	3.5	2.2
Non-Residential Investment							
(97 \$Millions)	32567	34847	38056	41222	42671	43309	43966
<i>% Change</i>	-6.0	7.0	9.2	8.3	3.5	1.5	0.3
Engineering Construction	13568	14268	15614	17263	18005	18479	18432
<i>% Change</i>	-8.3	5.2	9.4	10.6	4.3	2.6	0.0
Building Construction	2538	2789	3042	3210	3308	3342	3508
<i>% Change</i>	-9.8	9.9	9.1	5.5	3.0	1.1	1.0
Industrial Construction	601	678	776	914	948	936	901
<i>% Change</i>	8.1	12.7	14.5	17.8	3.7	-1.2	-0.7
Commercial Construction	929	1028	1071	1019	1050	1073	1153
<i>% Change</i>	5.2	10.7	4.2	-4.9	3.0	2.2	1.5
Institutional & Government Construction	1102	1176	1288	1370	1403	1426	1547
<i>% Change</i>	-23.7	6.7	9.5	6.3	2.4	1.7	1.6

*Growth rates refer to average period growth, levels to the 2013 value

Source: **Construction Looking Forward, Labour Requirements for Saskatchewan from 2005 to 2013**, Construction Sector Council (June 2005)

Labour Force and Employment Outlook

**Figure 3
Construction Labour Markets in Alberta**



Human Resource Challenges in the Masonry Industry

At the start of decade there were approximately 16,000 workers and over 3,000 contractors (excluding self-employed) that earned their living from masonry work in Canada. The masonry industry was hard hit by the recession of the mid-90's and employment levels and apprenticeship registrations in some regions are still recovering to attain levels experienced in the late 1980's.

- **1990's Slow Recovery.** During the early 1990's employment for bricklayers dropped by almost 60% before recovering from 1999 to 2002. The recovery, however, is incomplete for some provinces. Based on Statistics Canada 2004 Labour Force Survey data there were approximately 12,600 employed as bricklayers in Canada, up from the lowest point of 7,300 but below the 1987 peak of 18,200.

A similar pattern of decline and recovery was reported in the western provinces where employment of bricklayers decreased from a high of 2,800 in 1987 to a 1,200 low in 1996. Estimated employment in 2004 was 2,500, still well below the 1987 peak. (*Note: the western provinces labour force statistics include British Columbia. Due to small sample sizes the labour force survey could not breakout bricklayer data for the Prairie Provinces.*)

- **Loss of Workers.** An implication of these results is that *well over half of employed bricklayers were forced out of the trade* during the recession and it is uncertain how many returned as construction markets improved across Canada in the late 1990s.
- **Skill Shortages.** The labour force trends are consistent with reports of shortages of bricklayers during the peak summer season in many regional markets across Canada in the early 2000s. It was evident that these shortages were related to the major loss of experienced workers during the recession and the slow rate of return during the recovery.
- **An aging workforce.** In addition to the slow recovery of the labour force, demographic data shows that bricklayers are on average older than most construction trades and there is significant risk that large numbers of skilled workers will leave the industry in the next ten to twenty years and may not be replaced if industry does not take action.
- **Recruiting Youth.** A larger problem for masonry is the limited number of young people entering the trade. Those that are entering appear to be less interested in certification and are more specialized in their experience. To meet the immediate industry needs young, inexperienced, uncertified workers were recruited to enter the work force. These new workers added to the substantial gaps in health and safety training of the current work force and contributed to further gaps in some specialized skill areas such as refractory, industrial and restoration work.

Demand for the Trades¹

Demand for newly certified masonry workers will come from the replacement of retiring workers and the need to meet rising demand.

The demand projections explore upper and lower limits that bracket the likely range of construction employment. The analysis examines several components that contribute to the future demand for bricklayers:

- **replacement:** to replace retirees and bricklayers that exit the trade for other construction trades or other industries,
- **trend growth:** to account for increased construction activity over the forecast period, and
- **increased share:** to account for increased construction activity and market share resulting from successful efforts of CMHRC initiatives that promote the benefits of masonry products.

For the western region (Manitoba, Saskatchewan and Alberta), the analysis starts with an estimated total labour force of 1,890 bricklayers working in construction in 2003. Changes to the base labour force are then introduced and traced over the forecast period of nine years from 2005 to 2013 to determine the demand implications.

Industry projections are based on forecasts prepared by the Construction Sector Council (CSC) and analysis by Canadian Masonry Human Resources Committee (CMHRC).² The CSC analysis projected the level of building activity by province and building type. This projection was adjusted to reflect the mix of construction activity served by masonry contractors.

The base line forecast for employment of bricklayers was for a 1.0% average annual growth from 2005 to 2013.

The results of the demand scenarios are summarized in **Exhibit 5.1**. The Exhibit shows the total and annual average change in the workforce under different circumstances and assumptions for the forecast period.

Replacement Demand

The first component of the demand analysis is to establish the number of new workers required to replace bricklayers that retirement or exit to other industries over the next nine years.

¹ Canadian Masonry Human Resources Committee 'The Canadian Masonry Industry, A Call to Action' (March 2004).

² CMHRC

The analysis starts with a simple estimate of the number of retiring bricklayers. It is assumed that all of the current work force age 55 and over retire in the next nine years. For the Western provinces this results in the exit of 355 bricklayers (or 43 per year) between 2005 and 2013 (see Exhibit 5.1).

The replacement of the existing workers represents the lower bound of the demand analysis. In order to maintain its existing workforce the masonry industry must replace departing workers.

**Exhibit 5.1 – Demand for Bricklayers, 2005 - 2013
Change in Labour Force, # of Workers**

	Manitoba	Saskatchewan	Alberta	Prairies
<u>Demand Scenarios</u>				
a. Replacement	80	25	250	355
b. Trend Growth	50	30	60	140
c. Increased Share	100	60	120	280
<u>Total Demand</u>				
Trend + Replacement	130	55	310	495
Increased Share + Replacement	180	85	370	635
Source: Prism Economics; Statistics Canada, 2001 Census; Construction Sector Council				

Growth Scenarios

In addition to the replacement of workers the demand analysis must take into account the potential for industry growth through increased overall construction activity and the increase of masonry's market share. Labour demand under industry growth scenarios would be in addition to replacement workers. Two growth scenarios are considered.

A "**Trend growth**" scenario traces the labour impact associated with a general increase in construction activity. The scenario is based on forecasts prepared by the Construction Sector Council (CSC) and analysis by Canadian Masonry Human Resources Committee (CMHRC). The projection calls for slow but steady weakening of the residential market and improved markets for non-residential construction. The mix of activity restricts the overall growth in demand for bricklayers in the Western Provinces to just less than 1.0% annually.

Under this scenario, the demand for bricklayers over the forecast period increases by 140 workers or an average of 15 per year between 2005 and 2013 (see Exhibit 5.1). These workers would be in addition to the 355 replacement workers

An alternative growth scenario is for masonry to capture an “**increased share**” of construction activity. Under this scenario the expected rate of growth in masonry markets doubles on the assumption that efforts to regain market share are successful. The increase worker demand is estimated at 280 bricklayers over the forecast period or 31 per year (see Exhibit 5.1).

In summary, the masonry industry can expect to meet the demand for a minimum of 495 and a maximum of 635 bricklayers over the next decade. The lower number allows for the replacement of retiring workers and a 1% annual trend growth in construction activity. The higher demand represents replacement workers, growth in construction activity and masonry capturing a larger share of the market.

Demand for Certified Bricklayers

Based on the demand projections under the two growth scenarios the demand for certified workers were estimated under two sets of assumptions. The first case assumes that the current proportion of the workforce that is certified is maintained over the forecast period from 2005 to 2013. Based on 2001 Census data, the percentage of the bricklayer labour force that is certified is estimated at:³

- Manitoba: 63%,
- Saskatchewan: 39%, and
- Alberta 54%.

In the second case, the certified proportion of the workforce for Saskatchewan is increased from the current level of 39% to 50% by 2013.

The implications of the analysis are summarized in Exhibit 5.2. Under the most limited assumptions of trend growth and certification, the trade will require over 495 new workers with over 267 of these new workers to become newly certified trades people over the coming decade. Under replacement and increase share the number of certificated workers increases to 635 over the next nine years.

These are conservative targets. Conditions could increase the need for certified workers under a variety of conditions like increased early retirements and added demand. The levels chosen here are deliberately left within reasonable reach of current activity.

³ Statistics Canada 2001 Census

Exhibit 5.2
Demand for Certified Bricklayers, 2005 to 2013
Change in Labour Force, # of workers

	Manitoba	Saskatchewan	Alberta	Prairies
% of Labour Force Certified	63%	39% / 50%	54%	
<u>Demand Scenarios</u>				
a. Replacement	50	10 / 13	135	195
b. Trend Growth	30	12 / 15	30	72
c. Increased Share	60	24 / 30	65	280
Total Demand				
Trend + Replacement	80	22 / 28	165	267
Increased Share + Replacement	110	34 / 43	200	344
Source: Prism Economics				

Rationale for Training Models

The concept of a training improvement coordinator was developed during consultations with the masonry industry in Alberta, Saskatchewan and Manitoba. It was not part of the original scope of the study. The initial concept was to look at the feasibility for a Regional Training Centre, serving the needs of the masonry industry in the Prairie Provinces. There were four basic models for training delivery considered in the consultations. These are discussed later in this chapter.

The masonry industry in Saskatchewan, as well as Alberta and Manitoba has been involved for a number of years in Pan-Canadian studies looking at human resource needs and workforce development. This research identified issues and concerns about the current supply of workers and the level of training in place to address those needs. The Saskatchewan masonry stakeholders identified a number of issues faced by the industry. These include:

- Getting people into the training system.
Bricklaying is not considered one of the more technical trades and yet it requires a high level of skill and knowledge of building systems to advance one's career. The industry needs to attract the right people, who will go through training and stay on as skilled bricklayers, and move up to become forepersons and supervisors. Supervisory skills are also a growing demand area for the industry.
- Significant drop out/discontinuation rates of apprentices.
As data in Tab 5 indicates there are large numbers of apprentices that do not complete the program.
- Low rate of certification in the workforce.
This varies to some extent by province, but most are short of the 50% certified worker goal set out in by the Canadian Masonry Human Resources Committee in 2002 to 2004 (www.cmhrc.ca). In the work undertaken by the CMHRC it was stated that the industry should set an objective of having at least 50% of the masonry workforce certified.
- Issues with Inter-Provincial/Red Seal (IP) examination.
Over the past few sessions of writing the IP exam a number of apprentices, in Saskatchewan, have failed to get their Red Seal. These same students did not have the same difficulty in passing their level exams. The employers and the union are committed to having certified workers and require this issue to be addressed. It has been noted that the results for the last IP exam significantly improved from previous years.
- Apprentices falling "between the cracks".
There is no user-friendly tracking system for apprentices. Some move in and out of the system, going to work and never returning for in-school training. There does not appear to be a systematic approach, on an industry wide basis, to following up with apprentices and keeping them in the industry. The union keeps track of apprentices that are its members.
- Engaging more employers in training.
This is a critical matter, as without employers who train apprentices the system fails. The more employers involved the more apprentices can be integrated into

the workforce and the investment in training would be shared over a broader base.

- Effectiveness of on-the-job training.
By engaging more employers in on-the-job training (OJT) the risk increases of having disparate approaches to providing the 80% of training that employers are responsible for. Currently, there are only very general standards or guidelines for OJT, which were developed in Saskatchewan. These guidelines provide an overview of both the in-school and on-the-job portion for training. There is also a national initiative, funded by the Construction Sector Council, to develop Pan-Canadian guidelines for a masonry on-the-job training program (See Tab 7 for background).
- Improvements to curriculum – mobility of apprentices.
One of the major concerns articulated by the Masonry industry is the inconsistent curriculum being taught to apprentices across the country. Not only does the content of the curriculum need to be addressed, but also more importantly a consistent and comprehensive approach to delivering that content needs to be implemented. This includes, sequencing, common training materials and consistent testing at the end of each level apprenticeship. This would ensure a more cohesive approach to training apprentices, allowing them the flexibility to follow the work between provinces and take the in-school training in different institutions if required.
- Avoid duplication of efforts.
There are elements of duplication across the Prairie Region, as well as other provinces. Currently, each province spends to develop curriculum, then training institutions have to develop training curriculum, training aids and materials. Most existing programs for attraction and retention of apprentices are also implemented locally or within a province, while the labour force requirements transcend borders. If funding could be pooled to address some of these elements a stronger product could be developed, and also help maintain a common approach across provinces.
- Manage risk to training programs
Apprenticeship programs face an element of risk. In the early 90's there was virtually no training for bricklayer apprentices, due to the downturn in the market. The masonry industry is paying a price for that, right now, as it is missing an age cohort of the workforce. Some provinces or regions, have smaller programs based on the size of the industry and population, it is sometimes difficult to put together a full class of second or third year apprentices, and those classes are at risk of being cancelled. It becomes more difficult to make up for these shortfalls as there are only so many apprentices that can be integrated into the workforce at any one time – it also results in many not completing their training. The industry and trainers must work together to ensure to reduce barriers to training and maintain a consistent program.
- Pension Plan Sustainability
Older workers who have contributed to pension funds throughout their career now face a risk of pensions not being able to meet the promised pay out. With a shrinking pool of contributing workers, lower than projected return and longer life-spans, there is a greater burden on younger workers to maintain existing pension levels. This will not be sustainable over the long term. There is a finite number

options to address this issue; pay outs will have to be reduced, the contribution levels needs to be increased (without the promise of increased benefits) or the pool of contributing workers needs to expand.

Four models of training delivery were discussed with industry as a vehicle to address the issues listed above.

1. Regional Training Centre

This was the original premise for the study. It was a concept developed to address the aforementioned issues. A financial model was created for this model and discussed with the labour and employer representatives from all three provinces.

Scope of model:

- Inclusive of Alberta, Saskatchewan and Manitoba. B.C. may be involved later in the process
- New building of approximately 15,000 sq.ft.
- Location potentially determined by concentration of apprentices and size of market (cost)
- Staffed by two permanent employees (director and head instructor), with part-time administrative support and part-time instructors (as needed)
- Prairie provinces training board established to oversee the management and directions

Rewards

- Systematic and consistent approach to training
- Economies of scale
- Broader support base from contractors and suppliers
- Common curriculum
- Ability to track apprentices
- Raise image of industry
- More industry input into training

Risks

- Cost
- Lack of support and seat purchase money from provinces (training delivery agent status)
- Difficulty in getting apprentices to travel
- Lack of support from contractors for centralized model
- Location is an issue
- Major shift from current training model

2. Satellite Training System with Training Improvement Coordinator. Saskatchewan develops new industry-owned facility.

This model was developed to take into consideration that provinces outside of Saskatchewan may not wish to change their current system of training, but would

be interested in coordinating it better. The second version of this model would provide for the rental of training facilities.

- ❑ Training facilities in Alberta and Manitoba continue to operate in their current fashion
- ❑ Saskatchewan builds training centre to suit provincial needs
 - Smaller facility of approx. 5,000 sq.ft
 - One full time instructor/director and part time admin support
- ❑ The alternative would be for the Saskatchewan industry to rent the appropriate facilities. This model has worked for the Masonry industry in two other locations in Canada.
- ❑ Training Facilitator's role is to coordinate the training among provinces, develop regional (multi-provincial) training plan, track apprentices, and facilitate development of core curriculum and sequencing between provinces.
- ❑ Prairie provinces training board established to oversee direction and review results

Rewards

- ❑ Focused approach to training
- ❑ Industry advocate to address barrier to solution and red-tape
- ❑ More emphasis on effective promotion and assessment
- ❑ Work towards common curriculum
- ❑ Better tracking of apprentices
- ❑ More opportunity for effective industry intervention
- ❑ Shared costs of resources
- ❑ More dialogue between provincial training systems
- ❑ Smaller training systems such as Manitoba and Saskatchewan would have support mechanisms
- ❑ Saskatchewan industry would be in control of own training

Risks

- ❑ Cost of the training facilitator and the time it would take for that role to be effective in the training environment
- ❑ Cost to Saskatchewan for the number of apprentices it would have in the system
- ❑ Province may not grant training delivery status to industry training centre
- ❑ Province may not provide seat purchase money/block funding

3. Satellite Training System with Training Improvement Coordinator. Saskatchewan Masonry Industry Works with SIAST to Improve Training System

This model would focus on the Training Improvement Coordinator Role and Saskatchewan would work to improve it's own system through existing delivery mechanisms.

- ❑ Training facilities in Alberta and Manitoba continue to operate as they are

- Saskatchewan masonry industry presents proposal to SIAST to address required changes to training system.
 - Resolve issue of the quality of instruction
 - Resolve issue of location of training
- Define role of industry in training
- Training Facilitator's role is to coordinate the training between provinces, develop regional (multi-provincial) training plan, track apprentices, and facilitate development of core curriculum and sequencing between provinces.
- Prairie provinces training board established to oversee direction and review results

Rewards

- Same as above
- Less risk to Saskatchewan masonry industry in terms of cost

Risks:

- SIAST may not agree to industry recommendations (requirements)

4. Training system continues to operate as is, with industry in each province making improvements independent of each other

- Training facilities in Alberta, Saskatchewan and Manitoba continue to operate as they are
- Ad hoc changes are implemented in each province

Rewards

- Questionable/Inconsistent. Each provincial industry group would have to work with its respective training centre to address the issues.

Risks:

- Less trained people/Skill shortages
- Duplication of effort
- Declining supply of labour

This Business Plan provides details on the Training Improvement Coordinator and the feasibility for a Saskatchewan Training Centre. The industry in Saskatchewan is committed to improve the quality of its workforce and would consider either option as a method to achieve that goal.

Detailed Descriptions for: Saskatchewan Masonry Training Centre of Excellence

Description of Saskatchewan Training Facility

Saskatchewan Masonry Training Centre of Excellence

The first option is for the Saskatchewan Masonry Industry to rent facilities for training. For a 3500 square foot industrial facility rent costs are estimated at approximately \$45,000 per year.

An alternative option is that a Saskatchewan Masonry Training Centre of Excellence (SMTCE) would be a newly constructed facility of approximately 5,000 sq. ft. located on one acre of land in an industrial area of Saskatoon. The Training Centre would be wholly owned by the Saskatchewan Masonry Training Excellence Fund.

If the second option is preferable, the Training Centre would be constructed on a design-build basis, that is to say, the general contractor will propose both a design and a fixed price for the completed project. In this way, the risk of cost overruns will be eliminated from the project. The general contractor will be selected on a competitive basis, and must build 100% union as well as hiring apprentices/supporting apprenticeship.

After canvassing various commercial lenders, mortgage finance at the rate of 5% to 7% were identified. These mortgage rates are financially favourable for a non-residential mortgage on a use-specific building. The mortgage amount is \$400K which is sufficient to cover all development and construction costs. The site will be purchased on a cash basis,.

The following table identifies targets for implementation, the dates would be filled in as part of the project conception phase:

Tab 7 – Figure No. 1
Project Timetable

	DATES
Purchase of Land	
Secure TDA Status for Apprenticeship Training	
Tender and Select General Contractor	
Municipal Building Approvals	
Commence Construction	
Complete Construction	
Complete Installation of Machinery and Equipment	
Commence Upgrade Training of Journeypersons	
Commence Apprentice Training	

Financing of Saskatchewan Masonry Training Centre:

Saskatchewan Masonry Training Excellence Fund, Inc:

As described at Tab 3, the contributions to the Saskatchewan Masonry Training Excellence Fund will come jointly from union masonry employers, and the IUBAC Local 1 representing the employees. The Saskatchewan Masonry Training Excellence Fund will be financed by employer contributions based \$0.30 for each hour worked by union masonry employees and by matching employee contributions. The obligation to make these contributions is set out in the provincial collective agreement and is enforceable under the *Labour Relations Act*. Annual contributions to the Training Excellence Fund would be approximately \$117K, equally divided between employers and employees.

The Saskatchewan Masonry Training Excellence Fund will seek to rent appropriate facilities or purchase the site for the Training Centre on a cash basis, from accrued funds and contributions. The Training Excellence Fund will also finance the cost of constructing the Training Centre through a mortgage or industry loan to be negotiated.

The Saskatchewan Masonry Training Excellence Fund may cover the costs of administering and maintaining the Training Centre, and may provide travel and accommodation support to trainees who require such assistance.

Provincial Apprenticeship Block Payments:

It is the intention of the Saskatchewan Masonry Training Centre is to obtain Training Delivery Agent (TDA) status for the bricklayer trade. The Training Centre will be the only location in Saskatchewan where apprentices can receive the full breadth of training that masonry employers in the ICI, restoration, residential and refractory sectors of the industry require and which are currently not being covered adequately at college.

Since it is not known what the current transfer of funding is to support masonry training at SIAST, the model assumes a value of \$2,500 per apprentice for an eight-week in-school session. The financial plan of the Training Centre anticipates that per diem revenues will cover the cost of instructors and consumables in apprenticeship training. Other training costs – e.g., overhead costs and the costs of enriched training – will be met by the Saskatchewan Masonry Training Excellence Fund.

Curriculum Development Support:

The current financial plan estimates curriculum development costs for upgrade, apprenticeship and apprentice enrichment training at \$32,000 for the next five years. These costs are significantly lower than might otherwise be anticipated owing to the Saskatchewan Masonry Training Centre's ability to draw on curriculum resources already developed by other jointly managed Masonry Training Centres elsewhere in Canada. It is important to note that the Saskatchewan Masonry Training Centre of Excellence will be able to develop curriculum far more cost effectively as a result of its industry links to employers, suppliers and other industry-managed training centres.

Financial Sustainability:

The *Project Budget* (Tab 9) and the Detailed Financial Plan (Tab 13) demonstrate that the project is financially sustainable.

- The projected contributions to the Training Excellence Fund of \$117K per annum are conservative estimates. Furthermore, the TTF contribution projections do not reflect the anticipated growth in the industry that is described in Tab 5.
- Under the Rented Facility model the training centre ends up with a cumulative surplus of nearly \$180K after 6 years of operation. Annual surpluses are expected to grow after that point as most major capital investment has been made.
- Over the six years of the project, the training centre (under Own Facility model) will start generating a small surplus. This reserve will be available to pay down mortgage debt or to invest in additional curriculum development. The reserve will also protect the Training Centre's operations against unforeseen fluctuations in revenues and expenditures.

Financial sustainability is fundamental to the Operations Plan of the Training Centre. This principle cuts across all elements of the Financial Plan. The rental option for facilities provides a more viable model for sustainability and risk aversion.

Masonry Employer Labour Force Requirements

1. Overall Increase in Apprentices:

To address demographic and demand-side pressures, and to increase the proportion of certified workers the industry must recruit approximately 10 to 15 new apprentices (5 to 7 to complete apprenticeship and become certified) into the trade per year over the next 10 years. Prior to the last three years, recruitment has averaged approximately 6 new entrants per year. In recent years there has been a significant increase in recruitment (18 new registrations in 2003/04), however there also have been significant cancellations (14 cancelled in that same period).

2. ICI versus Residential Skills

The supply of skilled labour in the ICI segment of the industry is particularly precarious. The workforce in this segment of the industry has an older age profile. There is also a need to upgrade the skills of incumbent workers each year.

There is also a concern in the ICI masonry industry that National Occupational Analysis, the foundation document for provincial training curriculum, is based on Section 9 of the Building Code – pertaining to residential construction. The ICI sector works to Section 4 of the Building Code, which has much more stringent tolerances and standards.

3. Stone Masons:

There is a significant amount of stonework in the industry and very little training included in most apprenticeship programs. This is an area that the industry wishes to address. In the survey of employers 54% indicated a shortage of skills in stone placement, 46% indicated a shortage in panel stone placement.

4. Restoration

Restoration is potential growth segment for the industry. Nearly 70% of employers in the Prairies indicated a shortage of skills in this area. This is also an area where training in apprenticeship programs is limited.

5. Other areas of perceived shortage

Other key areas of skill shortage indicated by employers include: blueprint reading, take offs/estimates from drawings, wall systems, and planning out a job.

The skills described above must be integrated into an enriched and augmented apprenticeship training if new apprentices are to have the skills required by masonry employers in the various sectors of the trade. As well, incumbent journeypersons in the industry must develop these same skills through upgrade training if the industry is to remain competitive. Only by developing these skills will incumbent journeypersons achieve the annual hours of employment they require to earn a decent living. Without these skills, increasing numbers of incumbent journeypersons will find their annual hours of employment declining.

Apprenticeship Training (Enriched): The current practice in most colleges is for apprentices to have approximately 4 contact hours per day and 2 practice hours. The Training Centre will replicate a normal workday. The training day will commence at 8:00 am and end at 4:30 pm, with 30 minutes for lunch. The training day will comprise 6 contact hours and 2 practice hours, with 30 minutes for lunch. This schedule will generate an additional 80 hours per 8-week period. The additional instruction and practice hours will cover subjects not sufficiently addressed in the provincial standards.

Access to Saskatchewan Masonry Training Centre of Excellence

Although only unionized employers in the masonry industry will contribute to the Saskatchewan Masonry Training Excellence Fund, access to the training centre will be made available to non-union apprentices. However, travel and accommodation subsidies, as well as enrichment and upgrade programs, will only be provided to employees of those employers who contribute to the TTF.

To facilitate access to the Training Centre of Excellence by workers from outside of the Saskatoon area the Training Excellence Fund will provide a commuting stipend to workers who must drive a significant distance and a travel and accommodation subsidy to workers for whom commuting is impractical. Short-term upgrade courses may be offered on the weekend to accommodate workers who must commute or travel, to reduce the time they would miss at work.

Saskatchewan Masonry Training Centre of Excellence:

Operations Plan

Renting Facility:

- Could initially start in smaller facility of 3,500 square feet
- Would look for space suitable for training – shop space and classroom space to start
- Ideally would only rent for 8 months of the year – in a vocational school if possible
- Upside rent of approximately \$40K per annum

Construction Plan

Site:

- Within the area of Saskatoon
- Easily accessible
- Approximately 1 acre
- Zoned for industrial use
- No municipal planning objections to educational use

Structure:

- 5,000 sq ft plus additional enclosable exterior facility for storage
- structure specifications:
 - shop space
 - classroom
 - space for breaks/lunch
 - administrative space
- to be tendered on design-build basis and built masonry as per direction of the Board of Directors.

Equipment:

- equipment to be acquired per equipment plan list (set out in Financial Plan)
- all machinery to be tendered on the basis of a delivered, installed and warranted price

Legal:

- areas:
 - land purchase,
 - contract with general contractor,
 - dealings with municipality,
 - mortgage.
- legal advisors:
 - To be identified

Mortgage Finance:

- \$400K through industry of financial institutions
- key terms:
 - 7% interest rate
- 5 year term
- 25 year amortization

Organizational Structure and Staffing Plan

Saskatchewan Masonry Training Trust Fund, through its Board of Directors:

- exercises overall legal responsibility for the Training Centre
- approves all policies
- approves all curriculum
- authorizes all grant applications and assumes legal responsibility for grants
- approves annual operations plan and budget
- appoints auditors
- approves all contracts and leases
- approves all major expenditures
- ratifies appointment of Training Centre Director/Head Instructor
- appoints Executive Committee and Co-Chairs
- equal employer and union membership
- meets at least three times per year

Executive Committee

- approves draft budget and draft operations plan
- appoints Curriculum and Standards Committee
- appoints Building and Development Committee (or Facilities Committee)
- develops interim policies, pending Board approval
- receives and approves monthly operations and financial reports
- recruits and appoints Training Centre Director/Head Instructor
- approves expenditures within authorized financial plan
- approves all staffing, based on recommendations of Training Centre Director/Head Instructor
- organizes annual planning exercise
- equal employer and union membership
- meets monthly

Industry Resource Personnel

- ongoing liaison with Training Centre Director/Head Instructor
- 1 employer representative / 1 union representative

Executive Director of Training Centre/Head Instructor

- hired on a three-year renewable contract
- develops proposed budget and annual operations plan
- submits monthly financial and operations reports
- manages the Training Centre
- oversees and implements outreach and promotion plan

- recruits, in collaboration with Executive Committee, Chief Instructor
- develops funding proposals, as required
- oversees development of curriculum
- recruits and recommends part-time instructors
- delivers trades training courses

Administrative Function

- manages receipts and disbursements
- prepares monthly and annual financial statements
- prepares financial reports as required by funding bodies
- assists in development of annual budget
- liaises with auditors

Position descriptions for the Training Centre Director/Head Instructor are reproduced and attached at the end of this Tab.

Financial Plan

The Financial Plan covers in detail the capital budget, general operations budget, and training budget, as well as revenue projections. The Financial Plan is revised annually and reviewed quarterly. The Project Budget, set out at Tab 9, reflects the salient features of the more detailed Financial Plan. The Detailed Financial Plan is reproduced in the Appendix - Tab 3.

Detailed Training Needs Analysis

A detailed training needs analysis will be the basis for curriculum for enhancing apprenticeship training to meet the needs of the masonry industry and also upgrade curriculum for skills needed by journeypersons who work in these sectors of the industry.

Phase I of the training needs analysis was completed in November 2004. Surveys of employers and apprentices were completed to identify training gaps and issues:

The results of this work determined the training priorities for the Saskatchewan Masonry Training Centre. Additional work, carried either in Saskatchewan or in conjunction with national studies, will be required to get detailed input on curriculum development for enhanced programs.

Curriculum Development Plan

Pending completion of Phase II of the training needs analysis, the following is the curriculum development plan.

Curriculum will be developed using a DACUM (Developing a Curriculum) process. Persons who are experienced in specific trade functions will identify the tasks that an individual must be able to perform. These tasks will be associated with specific skills. Curriculum will then be designed to achieve development of those skills. Curriculum developers will be persons who are expert in trade functions and who have had prior instructing experience.

Figure No. 1 summarizes the curriculum to be developed.

Tab 8 - Figure No. 1
Curriculum to be developed by the Training Centre

Upgrade Courses / Apprenticeship Enrichment Courses:
evening or weekend

- Stone placement, cutting and panels
- Restoration
- Wall systems
- Blueprint Reading
- Estimating/Take Offs
- Mentoring Program
- New Material Seminars
- New Procedures (based on new standards)
- Refractory

Intellectual Property

Curriculum developed by the Training Centre of Excellence will be copyrighted and owned by the Training Excellence Fund, Inc. Curriculum that is developed with public monies will be made available on a no-royalty basis to publicly financed training bodies, such as colleges. Curriculum that is developed solely using Training Excellence Fund resources will be made available on a fair market royalty basis. To economize on curriculum development costs, the Training Centre will collaborate, whenever practical, with other jointly managed training centres elsewhere in Canada. When this path is followed, curriculum will be jointly owned with other development partners.

Marketing Plan

The Saskatchewan Masonry Training Centre will actively promote entry into the trade. The Training Centre will also actively promote participation in upgrade training by incumbent journeypersons.

Promoting Entry into the Trades:

To promote entry into the trades, the Training Centre will undertake the following initiatives:

1. Development of a Web Site to provide information on the trade, links to industry resources, testimonials from apprentices and recently certified journeypersons, and information on the Training Centre. This web site will be professionally developed and maintained.
2. Development of a 15 minute video on the trades for use at career fairs and school visits. The video will also be downloadable from the web site.
3. Development of a professional PowerPoint presentation for use in school visits and community-based employment association visits.
4. Production of a brochure providing information on the trade, how to access the web site, and contacts who can provide more information.

5. Commissioning of a display booth for use at careers fairs.
6. Delivering training to selected employers, journeypersons and current apprentices to deliver presentations to schools and to community-based employment agencies.

A distinct feature of this promotion strategy will be the recruitment of 10 employers, new journeypersons, and/or current apprentices each year to be trained to deliver presentations in visits to schools and community-based employment agencies. Current apprentices or recently certified journeypersons can provide a personal account of the trade and can relate better to school age youth.

Promoting Upgrade Training:

The Training Centre will implement a systematic program to promote upgrade training among incumbent journeypersons. According to the employer survey there is currently very little upgrade training available for journeypersons. Given the experience of other trades which offer journeyperson upgrading there is evidence of some resistance among journeypersons to take upgrade training. The Training Centre would target to increase the number of journeypersons who take upgrade training through the Training Centre of Excellence to approximately 15% of unionized journeypersons. To achieve this increase in upgrade training the Training Centre will undertake the following:

1. Production of a brochure describing upgrade courses and the employability benefits of these courses, with endorsements from employers and other journeypersons.
2. Development of a professional PowerPoint presentation for use at union meetings
3. Advertisements in Local publications.
4. Direct mail of brochures to journeypersons.
5. Posters in the workplace and in union halls.
6. Annual open house.

The budget for marketing and promotion is estimated starting with \$5,000 and growing to about \$16K to \$17K over the six year period.

Reporting and Stakeholder Accountability

The Saskatchewan Masonry Training Centre of Excellence will adhere to the highest standards of stakeholder accountability.

1. The finances of the Training Trust Fund will be independently audited on an annual basis and the audits shall be presented to Union and Management.
2. Monthly financial reports and activity reports will be presented to the Executive Committee, with copies to the Board of Directors. A quarterly financial and activity report will be presented to the Board of Directors.
3. The Training Centre will publish an annual report detailing training activities over the past year and plans for the coming year, and shall be presented to Union and Management.
4. The activities of the Training Centre will be guided by an annual operations plan, an annual budget and a three-year strategic plan. These will all be approved by the Board of Directors.
5. Prior to developing its annual operations plan, the Training Centre will convene a workshop of union employers, union business managers, and other stakeholders to assess past performance and anticipated training needs.

Executive Director/Head Instructor of the Training Centre

Profile of Position:

The Executive Director/Head Training Instructor is responsible for the day-to-day operation of the Saskatchewan Masonry Training Centre of Excellence and its training and outreach programmes. The Executive Director/Head Trainer prepares reports on the Training Centre and its programs and oversees the preparation of funding submissions. With the approval of the Executive Committee, the Executive Director recommends hiring of any additional Instructors. The Executive Director approves or hires all other staff of the Training Centre after approval by the Board of Directors. The Executive Director reports to the Executive Committee and the Board of Directors of the Training Excellence Fund.

Duties and Responsibilities:

1. Prepares an annual operating and financial plan for consideration and approval by the Board of Directors of the Saskatchewan Masonry Training Excellence Fund (TEF).
2. Prepares quarterly operating and financial reports for consideration and approval by the Board of Directors of the TEF.
3. Makes monthly financial and operating reports to the Executive Committee,
4. Hires such staff as are authorized by the annual operating plan, subject to whatever restrictions may be established by the Board of Directors,
5. Enters into supplier contracts as are authorized by the operating plan, subject to approval by the Board of Directors,
6. Oversees preparation of funding submissions and negotiates draft funding agreements with governments, subject to approval at the next Board of Directors meeting or the Executive Committee when that power is delegated,
7. Submits draft curricula to the Curriculum Committee for approval,
8. Manages outreach and promotion activities,
9. On behalf of the Building and Development Committee of the Board of Directors of the TTF, oversees and co-ordinates construction and equipping of the Training Centre.

Qualifications and Experience:

1. A Certificate of Qualification/Red Seal in the Bricklayer trade.
2. A minimum of 10 years practical experience in the Masonry trade.
3. Knowledge of government funding programs and apprenticeship programs.
4. Prior experience as a training administrator.

5. Ability to work with a joint employer-union management committee.
6. Demonstrated ability to make presentations.
7. Demonstrated ability to recruit and supervise staff.
8. Demonstrated ability to prepare budgets and reports.

ASSUMPTIONS FOR SASKATCHEWAN FINANCIAL MODEL: Own Facility

RECEIPTS:	
Gross Contributions to TTF	1 st year requires a lump sum infusion of dollars, Year 2-7 based on \$.60 per hour for 195,000 hours.
TDA Per Diem Revenue	The is based on receiving training delivery status and receiving a per diem for each apprentice, based on 40 days per intake (\$62.00 per apprentice/per day)
Other Grants	Not included for the purpose of the business plan as they are not "In-hand"
Curriculum Development Support	Not included for the purposes of the business plan as they are "not in hand"
Mortgage Loan	Mortgage requirements estimated at \$400K, drawn down over Year 2 and Year 3
HRDC - LMP Agreement	Not included for the purposes of the business plan
Interest	Estimated at 2.5% - Year 1 on the lump sum invested, Year 2 to 6 based on the amount in the cumulative surplus
Other (i.e. partners)	Other training partners such as suppliers, will require \$50K per year, and a one time contribution of \$75K in Year 2
Total Receipts	Once the capital investment phase is completed, it will take approximately \$280K to operate the centre. In Year 4 upgrading programs may be considered.
DISBURSEMENTS:	
Management and Administration:	
Administration - TTF	This amount includes, legal fees, accounting costs, administration of the training fund, as well as travel for board members and miscellaneous expenses
Management and Administration - Training Centre	
Salaries and Administration	This includes salaries for a Training Director/Instructor and Admin support. The instructor is only brought on board part way through Year 1 and admin support brought in part way through Year 2
Occupancy Costs	Based on a 5,000 sq. ft. facility (see breakdown – Admin-TC)
Professional Fees	No other professional fees included (accounting and legal included in the Administration of TTF.
Training Improvement Coordinator	This depends on the discussions of the Prairie Region Training Improvement Coordinator.
Land and Building:	
Mortgage Costs	Carrying costs for mortgage
Building (from Mortgage)	Construction costs (draw down from the mortgage)
Land	Land estimated at 150K per acre – based on purchase of one acre. Purchased through reserve cash.

Machinery, Equipment and Furnishings:	
Acquisition Costs:	
Hand and Power Tools	Approximately \$15K split over two years
Machinery and Equipment	Approximately \$75K, half in Year 2 and the remainder over Year 3 & 4
Stone	No upgrading at this time, possibly starting in Year 4
Restoration	No upgrading until Year 5
Refractory	Not included
Computers	Lab set up in Year 3
Administration	Furnishings and equipment
Annual Maintenance & Warranty Costs for M&E (2%)	Based on 2% of one quarter (25%) of ME costs
Training Delivery:	
Tuition Off-set	Possible revenue from tuition fee of \$15/week per apprentice – not applied
Locally Delivered Training, incl. Instructors Costs	Applicable if doing mobile training
Skill Upgrade Delivery, incl. Instructors Costs	Costs of part time instructors to instruct upgrading programs
Apprenticeship Delivery	Cost of delivery apprenticeship programs. Does not include travel allowances.
Apprenticeship Enrichment Training Delivery, incl. Instructor Costs	Not applicable at this time
Instructors (Apprenticeship) & Head Instructor	Cost of part-time instructors to supplement apprenticeship training
Curriculum Development	Cost of refining and adjust existing curriculum and upgrade components
Marketing and Promotion	Will depend on how and if function is integrated with Training Improvement Coordinator
Total Disbursements	Once the program is up and running, and most one-time costs have been absorbed it will cost approximately \$250K/year.
Surplus / Deficit (-) on Year	Running a diminishing deficit in Years 3 to 5. Starts to show surplus in Year 6
Cumulative Surplus / Deficit (-) Reserve	Running a cumulative average surplus of \$94K. A portion of this should be allocated to a reserve fund. Monies over and above the reserve could be used to expand training as per direction of industry/board.

ASSUMPTIONS FOR SASKATCHEWAN FINANCIAL MODEL: Rent Facility

RECEIPTS:	
Gross Contributions to TTF	1 st year requires a lump sum infusion of dollars, Year 2-7 based on \$.60 per hour for 195,000 hours.
TDA Per Diem Revenue	The is based on receiving training delivery status and receiving a per diem for each apprentice, based on 40 days per intake (\$62.00 per apprentice/per day)
Other Grants	Not included for the purpose of the business plan as they are not "In-hand"
Curriculum Development Support	Not included for the purposes of the business plan as they are "not in hand"
Mortgage Loan	N/A
HRDC - LMP Agreement	Not included for the purposes of the business plan
Interest	Estimated at 2.5% - Year 1 on the lump sum invested, Year 2 to 6 based on the amount in the cumulative surplus
Other (i.e. partners)	Other training partners such as suppliers, will require \$50K in the first year, and then \$40K in years 2 to 6
Total Receipts	Once the capital investment phase is completed, it will take approximately \$225K to operate the centre.
DISBURSEMENTS:	
Management and Administration:	
Administration - TTF	This amount includes, legal fees, accounting costs, administration of the training fund, as well as travel for board members and miscellaneous expenses
Management and Administration - Training Centre	
Salaries and Administration	This includes salaries for a Training Director/Instructor and Admin support. The instructor is only brought on board part way through Year 1 and admin support brought in part way through Year 2. It assumed they will be full-time employees. In the months when no classes are running the Instructor could be involved in on the job training.
Occupancy Costs	Based on a 3,500 sq. ft. facility (see breakdown – Admin-TC)
Professional Fees	No other professional fees included (accounting and legal included in the Administration of TTF.
Training Improvement Coordinator	This depends on the discussions of the Prairie Region Training Improvement Coordinator.
Land and Building:	
Rent	Based on \$45K per annum
Building (from Mortgage)	N/A
Land	N/A.
Machinery, Equipment and	

Furnishings:	
Acquisition Costs:	
Hand and Power Tools	Approximately \$15K split over two years
Machinery and Equipment	Approximately \$75K, half in Year 2 and the remainder over Year 3 & 4
Stone	No upgrading at this time, however a module to be included in the apprentice program will be developed
Restoration	No upgrading at this time, however a module to be included in the apprentice program will be developed
Refractory	Not included
Computers	No computer lab
Administration	Furnishings and equipment
Annual Maintenance & Warranty Costs for M&E (2%)	Based on 2% of one quarter (25%) of ME costs
Training Delivery:	
Tuition Off-set	Possible revenue from tuition fee of \$15/week per apprentice – not applied
Locally Delivered Training, incl. Instructors Costs	Applicable if doing mobile training
Skill Upgrade Delivery, incl. Instructors Costs	No upgrading is assumed in this model. All training to be done by head instructor.
Apprenticeship Delivery	Cost of delivery apprenticeship programs. Does not include travel allowances.
Apprenticeship Enrichment Training Delivery, incl. Instructor Costs	Not applicable at this time
Instructors (Apprenticeship) & Head Instructor	No part-time instructors at this time
Curriculum Development	Cost of refining and adjust existing curriculum and upgrade components
Marketing and Promotion	Will depend on how and if function is integrated with Training Improvement Coordinator
Total Disbursements	Once the program is up and running, and most one-time costs have been absorbed it will cost approximately \$210K/year.
Surplus / Deficit (-) on Year	Runs a small deficit in Year 2 and 4. Shows a surplus of \$30K in years 5 and 6
Cumulative Surplus / Deficit (-) Reserve	Running a cumulative average surplus of \$108K. A portion of this should be allocated to a reserve fund. Monies over and above the reserve could be used to expand training as per direction of industry/board.

Other Details Similar to “Own Facility” Model

Saskatchewan Industry Position Regarding Current Training

The Masonry Industry in Saskatchewan has a long history of working with SIAST to meet its demand for skilled workers. In the past, this has been a mostly successful relationship and there is great potential for the future. However, in recent years the performance of the program as well as the nature of the relationship between industry and SIAST has not been meeting its potential.

The masonry employers have a significant stake in the training of apprentices, the future of the industry depends on having a skilled workforce. The prime objective of masonry contractors is to bid and win masonry jobs – training apprentices is their responsibility on-site, not in the classroom.

There is still a strong desire to come to terms with SIAST and create a new and productive dynamic in the training of apprentices. The industry has some specific requirements, which if met would only make the program stronger and more vital.

The Saskatchewan Masonry Industry strongly supports an open dialogue with SIAST to meet its needs for a trained workforce.

Saskatchewan Masonry Industry Training Centre/ Western Training Improvement Coordinator Business Plan

Brief Description

The Masonry Industry in Saskatchewan and the Prairie Region as a whole has been working for several years to address various Human Resource issues at the national level. The Saskatchewan Masonry Institute (SMI) in partnership with Local 1 of the International Union of Bricklayers and Craftworkers (IUBAC) sought funding from Saskatchewan Learning and the Department of Western Economic Diversification to improve the training and development of the workforce, in Saskatchewan and across the Prairie Region

Employers in the masonry industry face a serious, long-term shortage of the work force skills they need to compete and expand. To meet this challenge requires ramping up the number of apprentices trained and providing upgrade training for journeypersons in the industry. The training currently available to the industry falls short of meeting the industry's needs, especially in delivering certified (Red Seal) workers, and the overall number of entrants.

The business plan originally focused on the feasibility of a Regional Training Centre, serving the Prairie Provinces. The concept was refined during the course of the investigation to reflect the perspectives of the masonry industry in individual provinces. For the Prairie Region as a whole the concept of a Training Improvement Coordinator was developed, while for Saskatchewan a feasibility assessment of a smaller training facility was conducted.

The Training Improvement Coordinator is a role that would serve Manitoba, Saskatchewan and Alberta to assist industry with various initiatives focused on supporting and improving the training for apprentices, acting as an industry liaison with various government agencies and attract new entrants.

The Saskatchewan Masonry Training Centre feasibility assessment provides the industry with a framework to evaluate the opportunity of operating its own training facility. This includes evaluating building and operating their own facility or renting a facility for training.

This document is divided into two main sections. Section one is the business plan for the Saskatchewan Masonry Training Centre of Excellence, while Section two provides the framework for the role of Training Improvement Coordinator for the Prairie Region.

Executive Summary

Section Two of this binder presents the business plan for the Western Training Improvement Coordinator. It provides a review of the objectives, an economic overview of the industry and the challenges it faces. Findings reveal the need for training more skilled workers to be able to maintain and grow the workforce to meet the industry's needs. The business plan includes the rationale for a Training Improvement Coordinator and a financial analysis of sustaining this function.

Section One of the binder pertains the feasibility and need for creating a Saskatchewan Masonry Training Centre of Excellence.

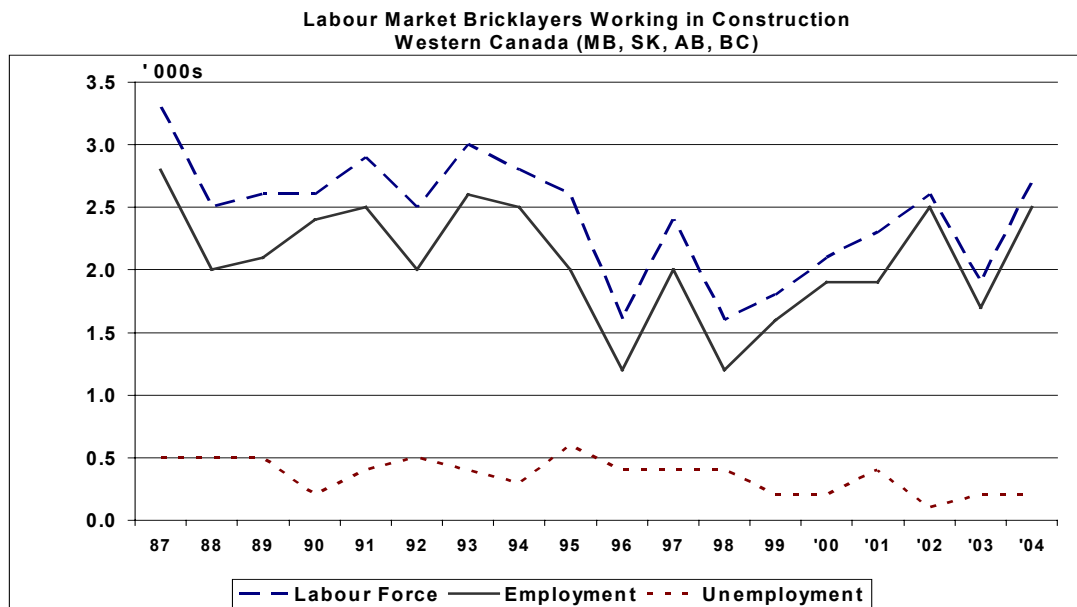
The following core values should define a training and certification program for the trades. The system must:

- Balance the benefits of providing specific skills needed by employers with the benefits of skill breadth to workers seeking employment.
- Meet the emerging need to replace the large number of tradespeople who will retire between 2005 and 2013.
- Address the escalating cost of training by establishing common programs and promoting mobility as well as securing more funding for training.
- Limit the costs of business cycles and the periodic loss of skills to other industries.
- Fill vacant jobs quickly with locally qualified workers, or if none are available, with workers from other regions or provinces.
- Recognize the priority of providing long term and secure employment for Canadian workers before turning to workers from other countries.
- Offer fair and efficient prior learning assessment and recognition to promote mobility of qualified workers.

A review of labour market conditions reveals the extreme cyclical risks for workers in the trades and describes how the recession in the 1990s reduced the available workforce of skilled trades. The need to rebuild this group is set out with reference to expected growth in the market and the masonry industry's plans to regain market share. Industry must also address the need to train new entrants to replace retiring Baby Boomers over the next ten to twenty years.

These findings are consistent with reports of shortages of bricklayers during the peak summer season in many regional markets across Canada. These reported shortages are related to the major loss of experienced workers during the recession and the slow rate of return during the recovery. The consequence is a shortage of available workers with any experience in the trade and a more severe shortage of workers with special skills.

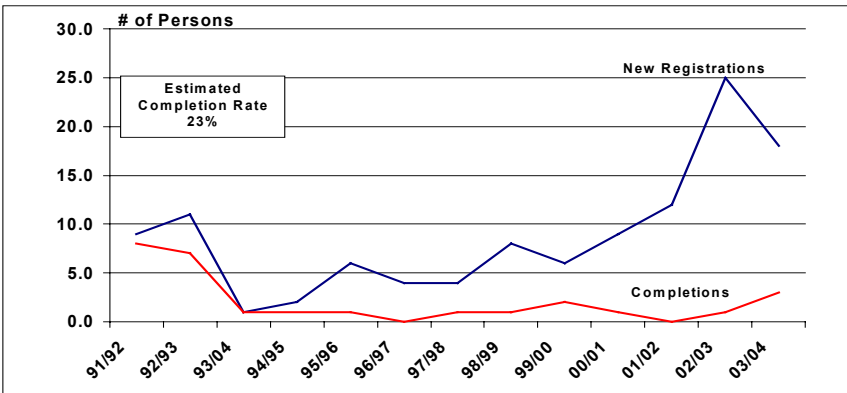
Trends in the Labour Market, 1987 to 2004



In summary, the masonry industry in the Prairie Provinces must plan to meet the increased demand for between 495 and 635 bricklayers over the next decade. The lower number allows for the replacement of retiring workers and a 1% annual trend growth in construction activity. The higher demand level represents replacement workers, growth in construction activity and masonry capturing a larger share of the market.

Targets described above are better understood with reference to the recent low levels of training. Apprenticeship statistics for Manitoba and Saskatchewan shows less than 5 completions per year for bricklayers, since the early 1990's. Alberta has had recent success in increasing apprenticeship completions from less than 10 in 2002 to nearly 40 in 2004. The 2001 Census data shows that Saskatchewan has the lowest certification rate of the Prairie Provinces at 39%, while Alberta and Manitoba are at 54% and 63% respectively. The Manitoba and Saskatchewan also have to contend with a strong economic climate in Alberta, which may draw workers out of province.

Bricklayer Apprenticeship Statistics 1991 – 2004 - Saskatchewan



<Insert charts for other provinces>

The concept of a training improvement coordinator was developed during consultations with the masonry industry in Alberta, Saskatchewan and Manitoba. It was not part of the original scope of the study. The initial concept was to look at the feasibility for a Regional Training Centre, serving the needs of the masonry industry in the Prairie Provinces. There were four basic models for training delivery considered in the consultations. These are discussed later in this chapter.

The masonry industry in Saskatchewan, as well as Alberta and Manitoba has been involved for a number of years in Pan-Canadian studies looking at human resource needs and workforce development. This research identified issues and concerns about the current supply of workers and the level of training in place to address those needs. The Saskatchewan masonry stakeholders identified a number of issues faced by the industry.

- Getting people into the training system.
- Significant drop out/discontinuation rates of apprentices.
- Low rate of certification in the workforce.
- Issues related to the Inter-Provincial/Red Seal (IP) examination.
- Apprentices falling "between the cracks".
- Engaging more employers in training.
- Effectiveness of on-the-job training.
- Improvements to curriculum – mobility of apprentices.
- Avoid duplication of efforts.
- Manage risk to training programs

Four models of training delivery were developed by industry as a vehicle to address the issues listed above.

1. **Regional Training Centre**

This was the original premise for the study. It was a concept developed to address the aforementioned issues. A financial model was created for this model and discussed with the labour and employer representatives from all three provinces. This model was discounted as there were too many barriers for implementation, it was replaced with model #2, described below.

2. **Satellite Training System with Training Improvement Coordinator. Saskatchewan develops new industry-owned facility.**

This model was developed to take into consideration that provinces outside of Saskatchewan may not wish to change their current system of training, but would be interested in improved coordination of activities across the Prairies. The second version of this model would provide for the rental of training facilities.

The rewards associated with have a Western Region Training Improvement Coordinator include:

- ❑ Focused approach to training
- ❑ Industry advocate to address barrier to solution and red-tape
- ❑ More emphasis on effective promotion and assessment
- ❑ Work towards common curriculum
- ❑ Better tracking of apprentices
- ❑ More opportunity for effective industry intervention
- ❑ Shared costs of resources
- ❑ More dialogue between provincial training systems
- ❑ Smaller training systems such as Manitoba and Saskatchewan would have support mechanisms
- ❑ Saskatchewan industry would be in control of own training

Key Objectives of the Western Training Improvement Facilitator Role:

- ❑ To spearhead efforts of masonry industry in Alberta, Saskatchewan and Manitoba to attract and retain apprentices.
- ❑ To interface with apprenticeship branches and training institutions and advocate on behalf of the masonry industry.
- ❑ To promote dialogue and coordination between training systems and industry.
- ❑ To enable transfer of apprenticeships.

Description of Proponent Group And Strength of Partnership

Future Project Proponent: Prairie Region Training Improvement Coordinator

The Masonry employers as represented by the Canadian Masonry Contractors Association (CMCA) believe that a Training Improvement Coordinator for the Western Region could form a critical element in their strategic vision of the masonry workforce. The CMCA already have in place, the administrative and governance structures to manage this initiative, by and throughout the Canada Masonry Centre. Their intent is to proceed to develop their position within a unilateral, management driven framework.

The CMCA would look to incorporate a Western Training Improvement Coordinator as part of a National Training directive. The Board members from Western Canada (two from Alberta, one from Manitoba, one from Saskatchewan and the president of the association, also from Saskatchewan) may form a Western management committee to oversee the function of the Western Training Improvement Coordinator.

By embracing this concept under the umbrella of the CMCA, this initiative could have the support from Ontario and its employer driven training system. This would include access to instructors, for core and specialty areas of the trade, training materials, assessment protocols, an apprentice tracking system and most significantly of all, buy-in from the employer community.

There would also be the ability to support province specific projects, which would be prioritized through a committee for implementation under the Training Improvement Coordinator role. These province specific projects could have a variety of structures (including jointly funded partnerships with labour and/or other interested groups) and would be operated and managed by ad hoc committee structures.

If this initiative was to be undertaken as a joint labour/management initiative a different governance structure would have to be developed. A Prairie Provinces Training Improvement Board would have to be created with participation from management and labour from all three provinces (assuming financial contributions from all parties)

Description of the Masonry Industry

Masonry contractors employ over 85% of bricklayers.¹ These workers are distributed among most, but not all sectors of construction including:

- New low-rise residential
- New high-rise residential
- Commercial
- Institutional
- Industrial
- Refractory
- Repair and restoration

The National Occupational Analysis (NOA) for bricklayers/stone masons/masons identifies the following areas (blocks) of work:

- Work Related Activities (codes, safety, blueprints, equipment, scaffolding, etc.)
- Masonry Wall and Column System
- Chimneys, Fireplaces, Masonry Heaters and Refractory Materials
- Construction/ Layouts of Masonry Arches
- Restoration
- Ornamental Masonry

The major area of construction where masonry is not used is heavy engineering projects, road building and water/sewer systems. There are special skills and work areas within the trade including stone cutting, refractory work, industrial construction, restoration and repair work and other areas.

4.1 Masonry Contractors

There are over 3,700 contractors with employees in Canada and three quarters of these firms employ four or fewer workers. The Western Provinces of Manitoba, Saskatchewan and Alberta account for 14 percent or 534 contractors.

Data on the number of masonry contractors is based on *Statistics Canada, Canadian Business Patterns (December 2004)*. The major sources of information for the Business Patterns are updates from the Statistics Canada survey program and from Canada Revenue Agency's (CRA) Business Number account files. Included in the Business Patterns are all Canadian businesses which meet at least one of the three following criteria:

- Have an employee workforce for which they submit payroll remittances to CRA; or
- Have a minimum of \$30,000 in annual sales revenue; or

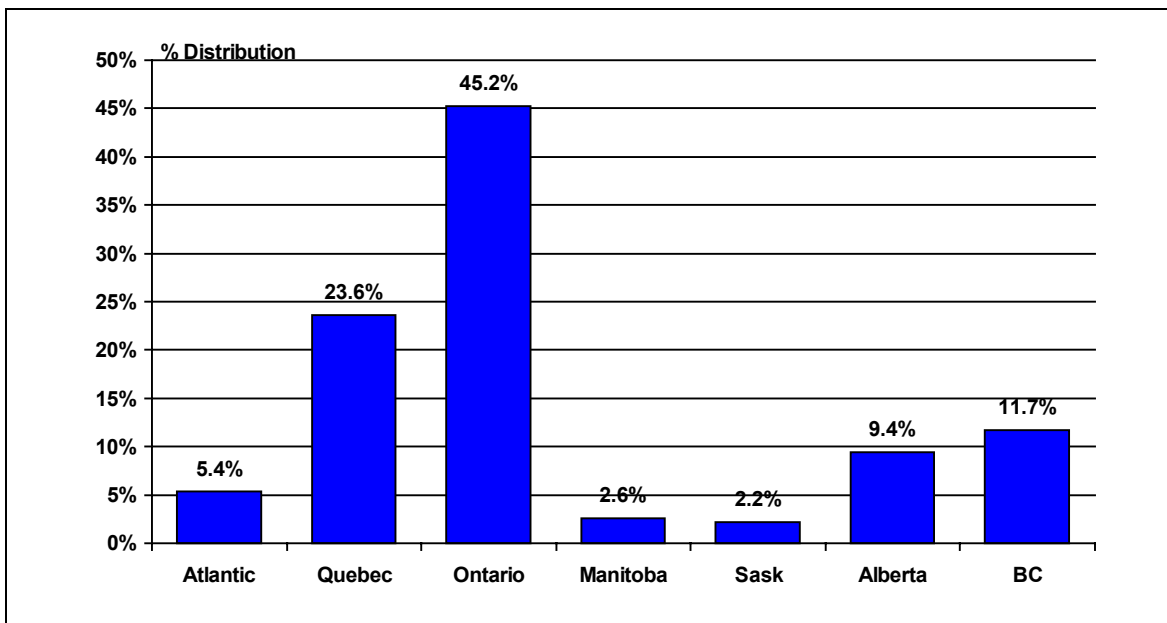
¹ The remaining 15% are persons identifying themselves as bricklayers but working in non-construction industries (manufacturing, etc.).

- Are incorporated under a federal or provincial act and have filed a federal corporate income tax form within the past three years.

Employment size is derived from payroll remittance made by employers on behalf of their employees.

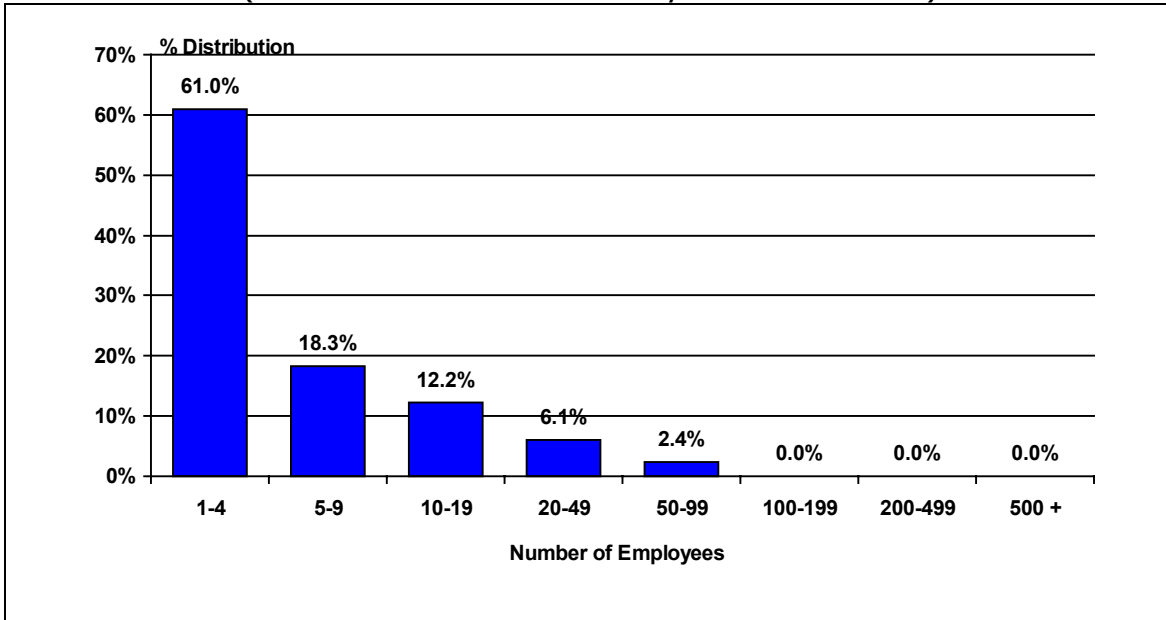
Figures 4.1 to 4.4 set out the size and regional distribution of masonry contractors (excluding self-employed). The purpose of this data is to illustrate the relative size and distribution of masonry contractors.

Figure 4.1:
Distribution of Masonry Contractors by Region (2004)
Estimated Number of Masonry Contractors – 3,700



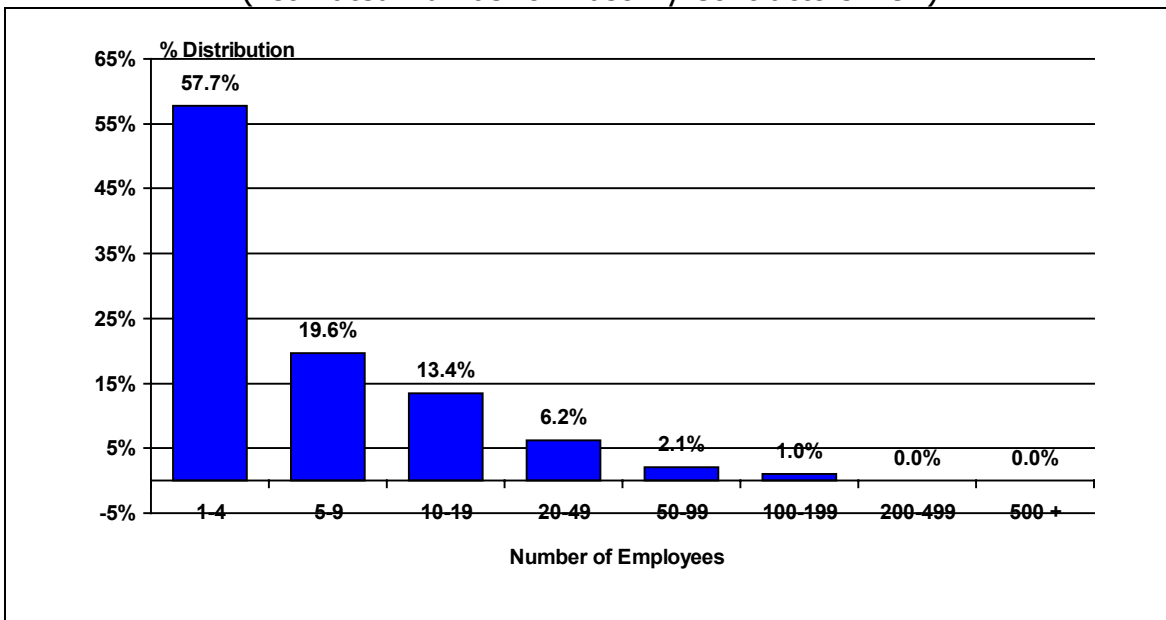
Source: Statistics Canada, Canadian Business Patterns, Business Register (2004)

Figure 4.2
Saskatchewan Masonry Contractors by Number of Employees (2004)
 (Estimated Number of Masonry Contractors – 82)



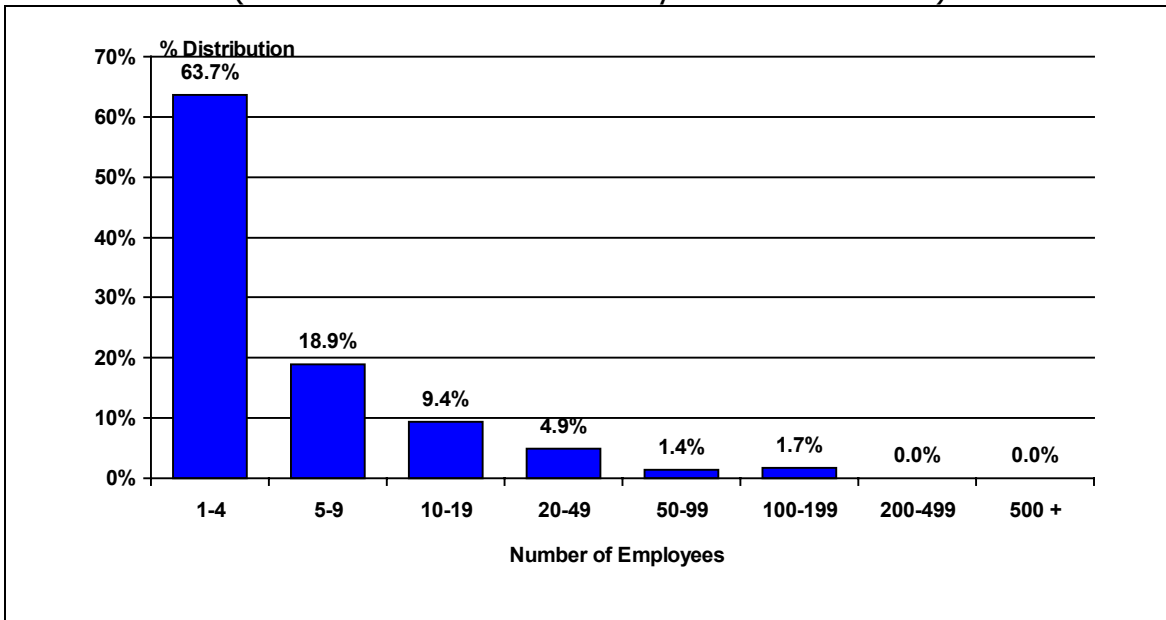
Source: Statistics Canada, Canadian Business Patterns, Business Register (2004)

Figure 4.3
Manitoba Masonry Contractors by Number of Employees (2004)
 (Estimated Number of Masonry Contractors – 97)



Source: Statistics Canada, Canadian Business Patterns, Business Register (2004)

Figure 4.4
Alberta Masonry Contractors by Number of Employees (2004)
 (Estimated Number of Masonry Contractors – 350)



Source: Statistics Canada, Canadian Business Patterns, Business Register (2004)

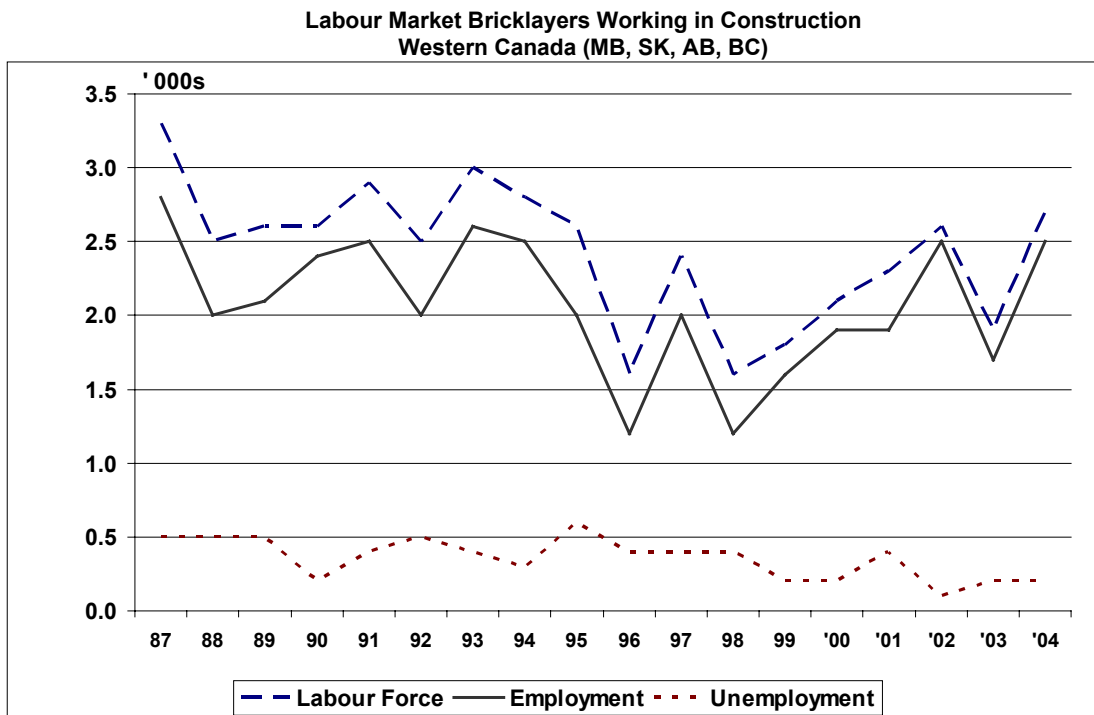
4.2 Labour Force

The bricklaying trades across most regions were hard hit by the recession of the mid 1990s. Exhibit 4.5 tracks the labour force, employment and unemployment rate for Western Canadian bricklayers working in construction for the period 1987 to 2004.

Note: Labour force statistics for Western Canada includes British Columbia. Due to the small sample sizes for bricklayers, individual provincial data could not be compiled for the Prairie Provinces. It is assumed for this analysis that all provinces followed a similar pattern to the western aggregate.

There is a volatile, cyclical pattern with employment dropping by almost 60% during the recession in the early 1990s and then recovering starting in 1997. The recovery, however, is incomplete with just 2,500 employed in 2004, up from the minimum level of 1,200 but still well below the 1987 peak of 2,800.

Exhibit 4.5: Trends in the Labour Market, 1987 to 2004



This pattern is similar to other construction trades, but masonry reports a more cyclical pattern and the extent of the recovery was weaker. This pattern is not shared with overall levels of employment in other construction trades where employment has expanded past previous peaks experienced in the late 1980s.

One implication of these results is that well over half of employed bricklayers were forced out of the trade during the recession (perhaps over 1,500 workers) and just 1,300 have returned to work as the market improved by the late 1990s.

Unemployment, measured as the dotted line at the bottom of Exhibit 4.5, is one indicator of labour market strength. Low unemployment signals a much tighter labour market than the trends noted above might suggest. In particular, in 2002 the number of unemployed bricklayers, as measured by Statistics Canada's Labour Force Survey, fell to a record low annual average of around 100 people. Measured at the monthly, seasonal peak, low unemployment rates point to the limited available workforce and likely shortages in the masonry markets.

These findings are consistent with reports of shortages of bricklayers during the peak summer season in many regional markets across Canada. It is clear that these shortages are related to the major loss of experienced workers during the

recession and the slow rate of return during the recovery. These findings and the results from contractor survey suggest that there is a shortage of available workers with experience in the trade. They also indicate a potential for a more severe shortage as skilled workers leaves the industry due to an aging workforce.

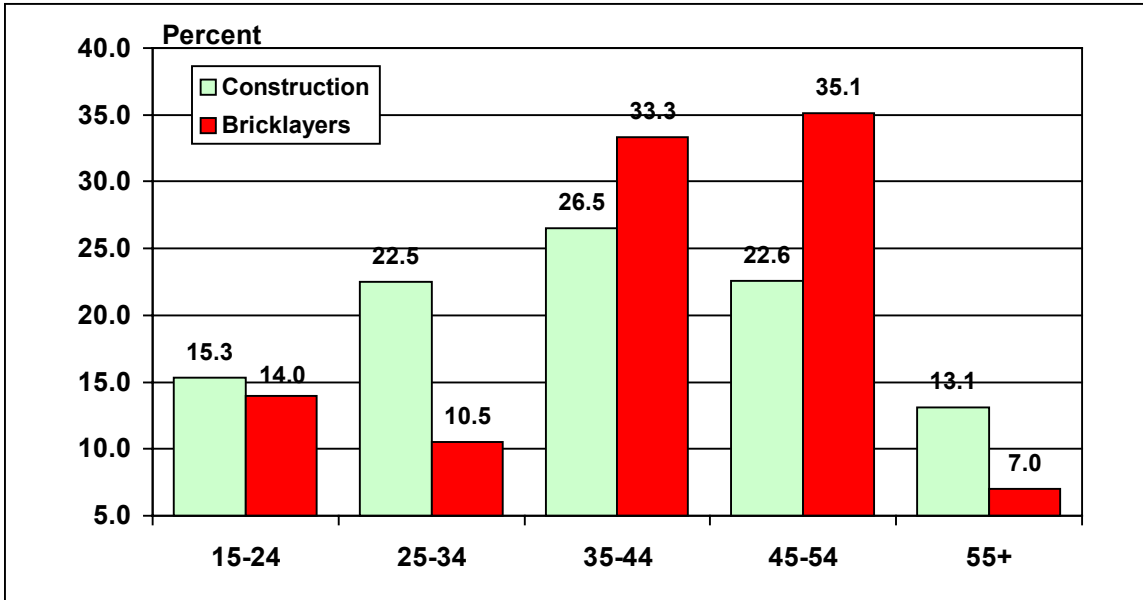
4.3 Demographics

Canada's labour force has a well-known problem related to the high proportion of Baby Boomers in the population. This group, aged 35 to 54, now dominates the demographics and the oldest Boomers are reaching their mid 50s. Human resource planning must anticipate the need to replace this group as it retires over the next twenty years. A more immediate problem is the limited younger population (age 15 to 24) who are now entering the work force. Competition is intensifying to attract this group into most occupations. The construction industry has a slightly older work force and shares these problems with other industries.

Bricklayers and related trades have a more serious version of this problem.

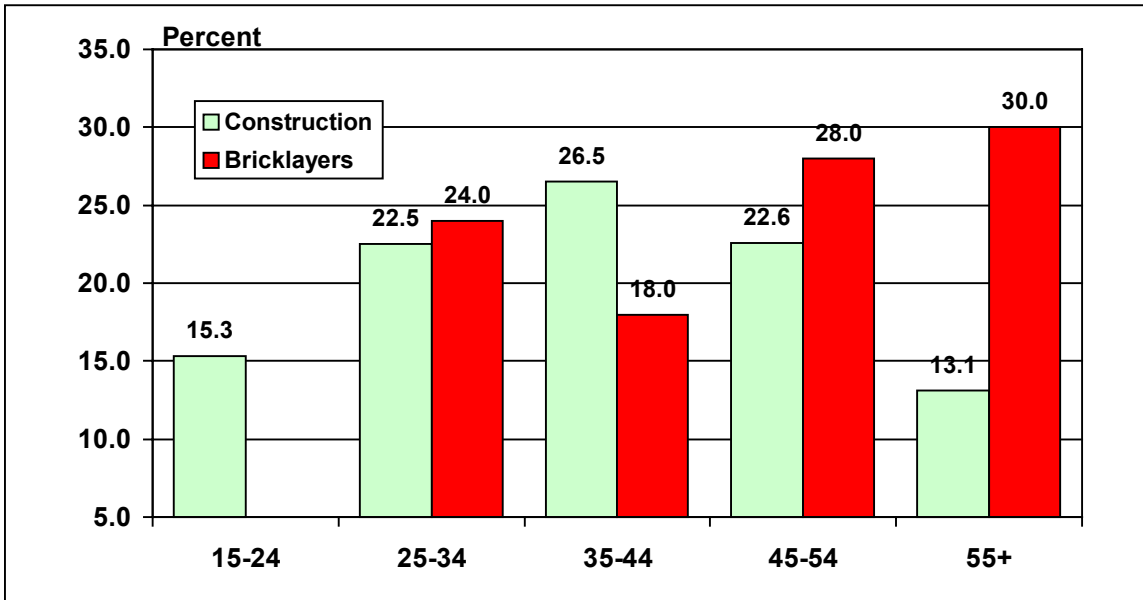
Exhibits 4.6 – 4.8 shows the age distribution of the labour force for bricklayers and all construction-related trades. The key groups are the youngest and oldest. The small proportion in the youngest group represents a recruiting challenge for the trades. The group of boomers aged 35 to 54 represent the problem of retirement that will be an issue starting in 2005 and lasting to 2025.

Exhibit 4.6: 2001 Age Demographics - Saskatchewan



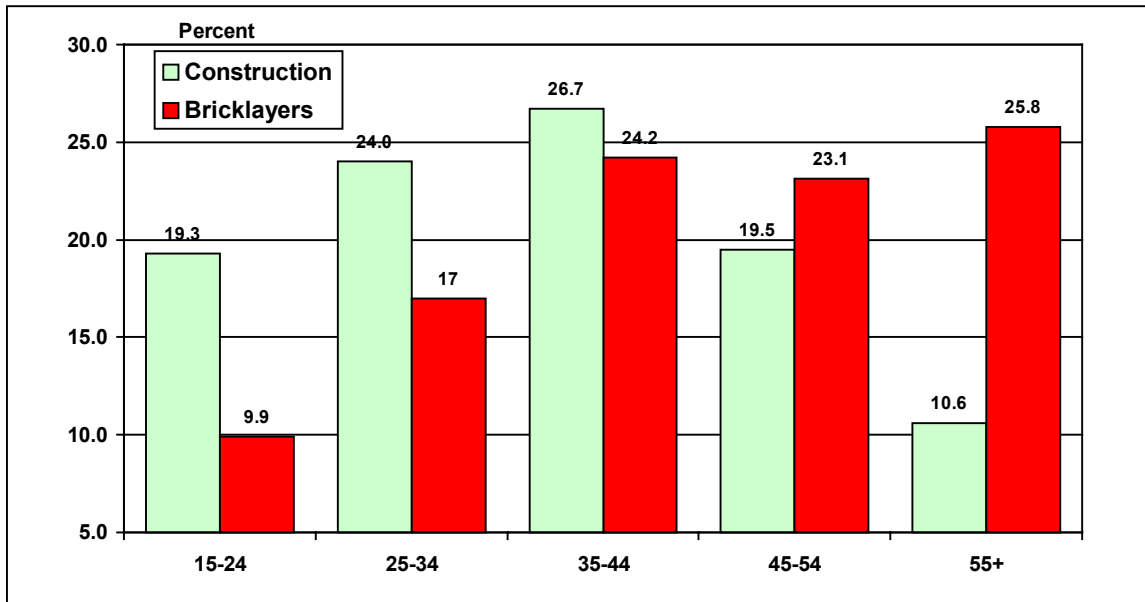
Source: Statistics Canada, 2001 Census

Exhibit 4.7: 2001 Age Demographics - Manitoba



Source: Statistics Canada, 2001 Census

Exhibit 4.8: 2001 Age Demographics - Alberta



Source: Statistics Canada, 2001 Census

Across the 1990s this demographic pattern had a dramatic impact on training and certification. Apprenticeship programs were cut back during the recession and many in the younger group in the voluntary trades did not receive training. The small youth group – now aged between 20 and 30 -- have a lower proportion of certified and trained workers. However, most Baby Boomers were certified when they entered the trades in the 1970 and 80s, and their growing presence meant that the proportion of the workforce that was certified was rising.

The result is that the proportion of the workforce with a post-secondary certification increased across the 1990s – across all trades and provinces. The threat is that these gains will erode as the boomers retire and the new entrants continue to receive less training.

4.4 Training

Weak labour markets and government spending cuts undermined apprenticeship programs in the early to mid 1990s. Unemployment and bankruptcy forced many skilled workers and contractors out of the business. This loss of talent was very costly and the impacts became apparent as the recovery in construction gained momentum in the early 2000s.

Exhibits 4.9 – 4.11, illustrate the decline in the number of new registrations and completions during the mid – 1990s and the resurgence of the apprenticeship programs in the late 1990s with the number of new registrations increasing.

Exhibit 4.9: Bricklayer Apprenticeship Statistics 1991–2004 - Saskatchewan

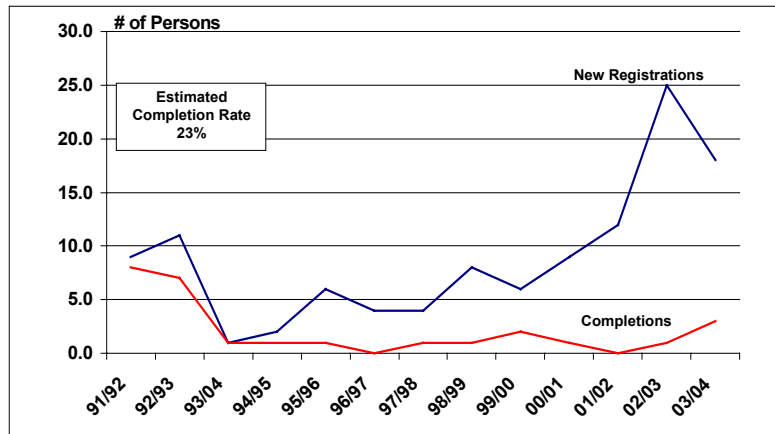


Exhibit 4.10: Bricklayer Apprenticeship Statistics 1991 – 2004 - Manitoba

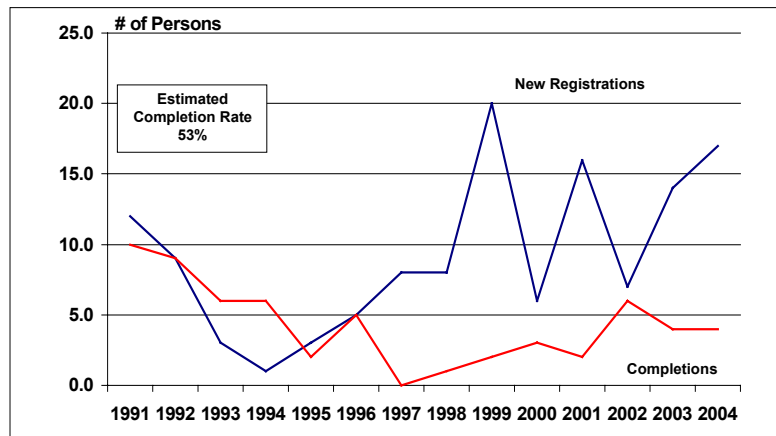
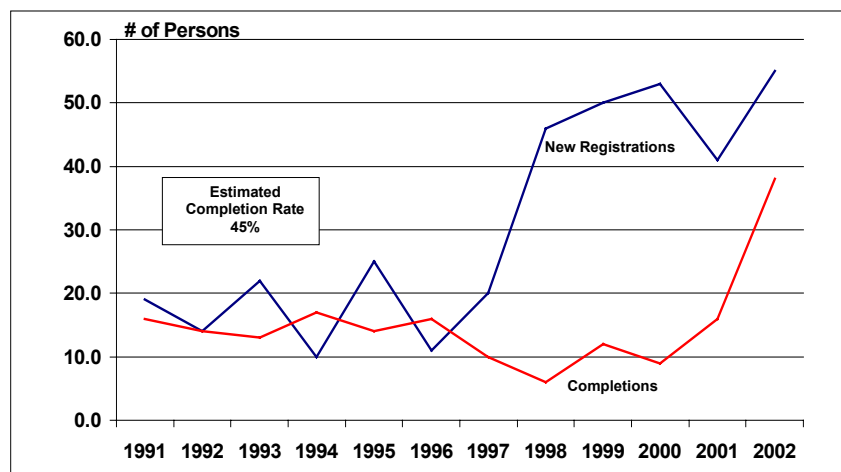


Exhibit 4.11: Bricklayer Apprenticeship Statistics 1991 – 2004 - Alberta



4.5 Economic Overview

This section provides a brief overview of economic conditions that will drive issues faced by the bricklaying trade and masonry contractors over the next decade. The findings presented here are based on research by the Construction Sector Council (CSC)². The CSC has developed labour market information models for each province to assess economic trends and labour market conditions for construction trades across Canada. Only the highlights are presented here. Copies of the provincial reports are available from the CSC website (www.csc-ca.org).

Saskatchewan

A healthy industrial sector and steady housing market will contribute to a fairly stable construction industry. Moderate employment growth is projected for most construction trades over the medium term to 2009. This allows most trades to adjust to increased demand through training and normal recruiting practices.

Economic Outlook

Economic growth as measured by gross domestic product (GDP) is projected to average 2.2% real growth (adjusted for inflation) over the medium term and is expected to drop slightly to average around 2.0 between 2009 and 2013.

² The Construction Sector Council is a national organization created in April 2001 and financed by both government and industry. The CSC is a partnership between labour and business.

The major sources of economic growth are export and investment. Increased exports in the mining and manufacturing and a recovery in the agricultural sector will contribute to growth over the medium term. Stronger investment performance is projected for agriculture, mining, and transportation and warehousing sectors.

Employment growth for the total economy is projected to average around 1.0% over the forecast period. The unemployment rate increases slightly over the medium term to 5.0% in 2013, as labour force growth exceeds employment growth.

Key provincial indicators are presented in Table 1.

Table 1
Key Economic Indicators – Saskatchewan
(Year over Year % Change)

	2005	2006	2007	2008	2009-13*
Real GDP	2.7	2.3	1.9	1.7	2.0
Consumer Expenditures	2.5	2.4	2.2	1.9	2.2
Government Consumption Expenditures	1.3	1.2	1.5	1.7	1.6
Government Investment Expenditures	1.5	1.4	1.3	1.4	1.4
Business Investment Expenditures	4.9	6.0	0.0	1.7	1.9
Exports	4.3	3.5	3.4	2.4	2.3
Imports	3.0	4.6	3.1	2.5	2.3
Population	0.2	0.5	0.8	0.8	0.7
Employment	1.6	1.5	0.8	0.3	0.9
Labour Force	0.9	1.1	1.1	0.9	0.9
Unemployment Rate (Level %)	4.6	4.2	4.4	4.9	5.0
CPI	1.6	1.6	1.7	1.6	1.5

Source: Construction Looking Forward, Labour Requirements for Saskatchewan from 2005 to 2013, Construction Sector Council (June 2005)

Investment Outlook

Table 2 presents the investment outlook for Saskatchewan. The outlook reports stronger growth in both residential and non-residential construction over the medium term. Over the long term, residential construction declines, while non-residential investment growth continues³.

³ **Construction Looking Forward, Labour Force Requirements for Saskatchewan from 2005 to 2014**, Construction Sector Council (June 2005).

- Residential building investment expenditures have increased over the past few years under stronger household growth, rising incomes, and lower interest rates. New housing investment is projected to peak in 2008.
- Industrial investment is projected to strengthen over the forecast period, as agriculture investment increases and manufacturing investment remains relatively high.
- Commercial building construction grows in line with increased business activity and population growth.
- Institutional and government building construction investment is projected to rise faster than population to facilitate the construction of additional infrastructure, including health care facilities.
- Engineering construction expenditures rise in the short term before declining to 2008. Increased mining, utility, and government investment are the major drivers.

Table 2
Investment Expenditures - Saskatchewan

	2003	2004	2005	2006	2007	2008	2009-13*
Residential Investment (97 \$Millions)	1034	1098	1083	1160	1228	1319	1340
<i>% Change</i>	9.5	6.2	-1.4	7.1	5.8	7.5	0.3
New Housing	367	409	380	442	495	573	524
<i>% Change</i>	17.3	11.4	-7.0	16.3	12.0	15.7	-1.7
Renovations	667	689	702	718	732	746	816
<i>% Change</i>	5.7	3.3	2.0	2.2	2.1	1.9	1.8
Non-Residential Investment (97 \$Millions)	5808	6230	6577	6923	6865	6903	7690
<i>% Change</i>	3.1	7.3	5.6	5.3	-0.8	0.6	2.2
Engineering Construction	2036	2139	2325	2518	2501	2403	2590
<i>% Change</i>	-9.8	5.0	8.7	8.3	-0.7	-3.9	1.6
Building Construction	630	672	701	735	737	764	860
<i>% Change</i>	-3.3	6.6	4.4	4.8	0.3	3.7	2.4
Industrial Construction	212	242	266	292	287	308	350
<i>% Change</i>	13.7	13.9	9.8	9.9	-1.9	7.5	2.7
Commercial Construction	165	171	171	173	176	176	201
<i>% Change</i>	-7.7	4.0	0.1	0.9	1.4	0.3	2.7
Institutional & Government Construction	302	308	314	319	324	329	358
<i>% Change</i>	-9.7	1.9	1.8	1.7	1.6	1.6	1.7

*Growth rates refer to average period growth, levels to the 2013 value

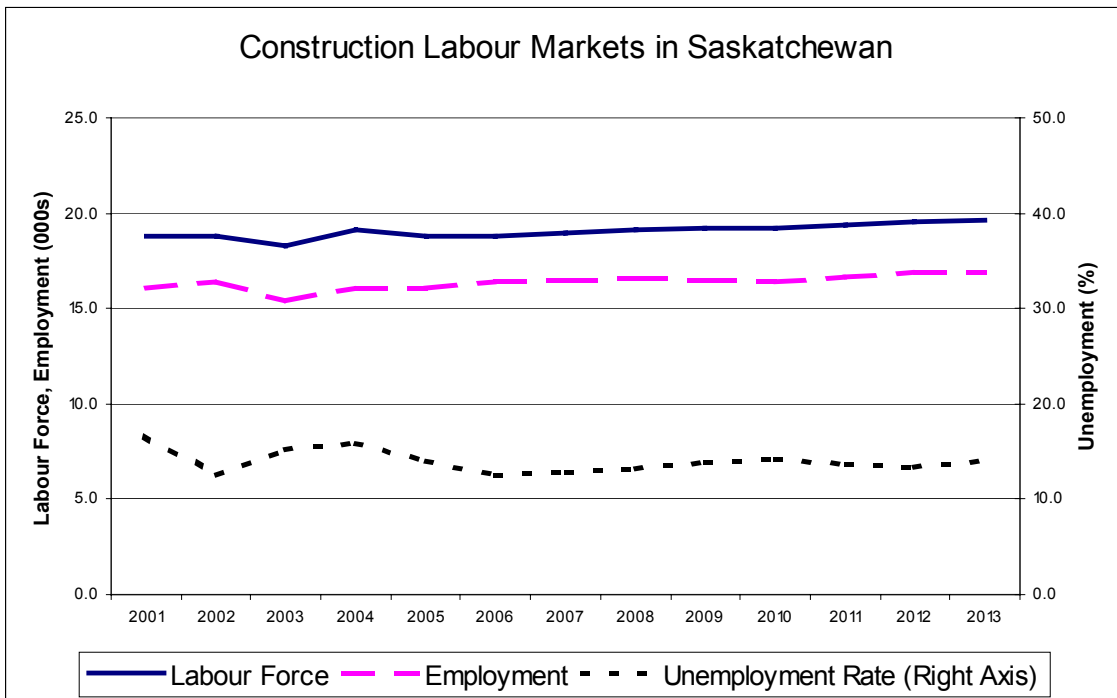
Source: **Construction Looking Forward, Labour Requirements for Saskatchewan from 2005 to 2013**, Construction Sector Council (June 2005)

Labour Force and Employment Outlook

The overall state of the labour market for construction trades is presented in Figure 1, which shows labour force, employment, and the unemployment rate.

The labour market is projected to be relatively stable over the forecast period. The available labour force is expected to gradually adjust to the construction demand requirements and the unemployment rate for construction trades will average around 14 percent.

Figure 1



In terms of labour market conditions, the CSC’s Construction Looking Forward report includes an assessment of the degree of tightness for selected construction trades – how difficult it is to get workers to fill available jobs. The labour market condition is rated on a ranking system with numbers ranging from 1 (excess supply) to 5 (intense competition for qualified workers). The degree of market tightness rises with the number assigned.

For the bricklaying trades, the CSC reports an average of Rank 3 over the forecast period:

The availability of workers in the local market may be limited by large projects, plant shutdowns or other short term increases in demand. Similar or weaker conditions exist in adjacent markets, however mobility is an option. Employers may need to compete to attract needed workers. Established patterns of recruiting and mobility are sufficient to meet job requirements.

The market ranking depends on the historical pattern of unemployment for the trade – both at the summer peak of activity and annual averages. The assessment also included the extent of apprenticeship training, potential migration from other provinces and the input gathered from the Saskatchewan LMI committee through an industry survey. Bricklayer was one of the several trades identified by industry stakeholders as reporting a concern about trade shortages. Other trades included concrete finishers, crane operators, heavy equipment operators, heavy equipment mechanics, plasterers and drywall installers, plumbers, refrigeration and air conditioning mechanics, roofers and sheet metal workers.

Manitoba

Economic Outlook

Table 3
Key Economic Indicators – Manitoba
 (Year over Year % Change)

	2005	2006	2007	2008	2009-13*
Real GDP	2.8	2.5	2.6	2.3	1.5
Consumer Expenditures	2.2	2.7	2.8	2.8	2.0
Government Consumption Expenditures	1.8	1.8	1.8	2.0	1.6
Government Investment Expenditures	11.7	6.9	1.9	-1.2	-0.3
Business Investment Expenditures	5.2	5.6	8.6	5.2	-1.2
Exports	3.7	1.9	1.9	1.8	1.7
Imports	2.8	3.1	3.4	3.0	1.4
Population	0.6	0.6	0.7	0.8	0.4
Employment	1.7	1.8	1.5	1.2	0.5
Labour Force	1.3	1.3	1.3	1.3	0.7
Unemployment Rate (Level %)	4.9	4.5	4.3	4.4	5.3
CPI	1.6	1.6	1.7	1.6	1.5

Source: Construction Looking Forward, Labour Requirements for Saskatchewan from 2005 to 2013, Construction Sector Council (June 2005)

Investment Outlook

Table 4
Investment Expenditures - Manitoba

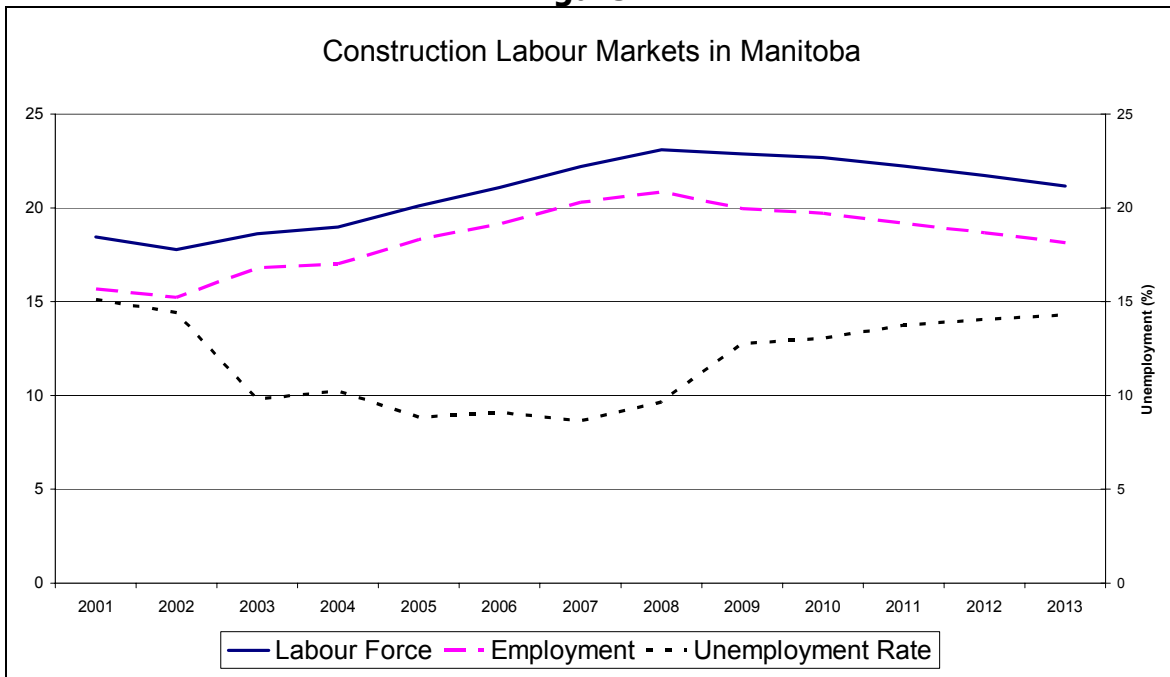
	2003	2004	2005	2006	2007	2008	2009-13*
Residential Investment (97 \$Millions)	1256	1211	1293	1323	1448	1518	1295
<i>% Change</i>	<i>6.7</i>	<i>-3.6</i>	<i>6.8</i>	<i>2.3</i>	<i>9.5</i>	<i>4.8</i>	<i>-3.1</i>
New Housing	495	432	498	512	618	664	371
<i>% Change</i>	<i>11.3</i>	<i>-12.8</i>	<i>15.4</i>	<i>2.8</i>	<i>20.8</i>	<i>7.4</i>	<i>-10.7</i>
Renovations	761	779	795	811	829	853	924
<i>% Change</i>	<i>3.8</i>	<i>2.3</i>	<i>2.0</i>	<i>2.0</i>	<i>2.3</i>	<i>2.9</i>	<i>1.6</i>
Non-Residential Investment (97 \$Millions)	5197	5438	5781	6175	6621	6893	6652
<i>% Change</i>	<i>4.3</i>	<i>4.6</i>	<i>6.3</i>	<i>6.8</i>	<i>7.2</i>	<i>4.1</i>	<i>-0.7</i>
Engineering Construction	807	876	1053	1194	1354	1455	1145
<i>% Change</i>	<i>-2.6</i>	<i>8.6</i>	<i>20.2</i>	<i>13.4</i>	<i>13.4</i>	<i>7.4</i>	<i>-4.6</i>
Building Construction	853	901	963	1019	1043	1048	1058
<i>% Change</i>	<i>2.9</i>	<i>5.6</i>	<i>6.9</i>	<i>5.8</i>	<i>2.4</i>	<i>0.4</i>	<i>0.2</i>
Industrial Construction	189	212	244	271	282	279	266
<i>% Change</i>	<i>-24.1</i>	<i>12.2</i>	<i>14.9</i>	<i>11.3</i>	<i>3.9</i>	<i>-1.2</i>	<i>-0.9</i>
Commercial Construction	306	323	313	314	318	328	346
<i>% Change</i>	<i>0.7</i>	<i>5.4</i>	<i>-3.0</i>	<i>0.3</i>	<i>1.1</i>	<i>3.3</i>	<i>1.1</i>
Institutional & Government Construction	355	363	403	431	441	438	443
<i>% Change</i>	<i>12.5</i>	<i>2.3</i>	<i>11.1</i>	<i>6.8</i>	<i>2.3</i>	<i>-0.5</i>	<i>0.3</i>

*Growth rates refer to average period growth, levels to the 2013 value

Source: **Construction Looking Forward, Labour Requirements for Saskatchewan from 2005 to 2013**, Construction Sector Council (June 2005)

Labour Force and Employment Outlook

Figure 2



Alberta

Economic Outlook

Table 5
Key Economic Indicators – Alberta
 (Year over Year % Change)

	2005	2006	2007	2008	2009-13*
Real GDP	3.0	3.5	4.1	2.8	2.4
Consumer Expenditures	3.4	4.3	4.8	3.9	3.0
Government Consumption Expenditures	3.2	2.4	2.6	2.7	2.3
Government Investment Expenditures	7.5	8.5	6.4	1.3	1.8
Business Investment Expenditures	6.6	6.9	3.0	1.9	-0.2
Exports	2.7	2.8	4.9	2.8	3.0
Imports	3.9	4.9	4.7	3.4	2.2
Population	1.3	1.4	1.5	1.6	1.0
Employment	2.0	1.5	2.4	1.2	0.9
Labour Force	1.7	1.7	1.9	1.8	1.0
Unemployment Rate (Level %)	4.3	4.5	4.0	4.5	4.7
CPI	1.6	1.6	1.7	1.6	1.5

Source: Construction Looking Forward, Labour Requirements for Saskatchewan from 2005 to 2013, Construction Sector Council (June 2005)

Investment Outlook

Table 6
Investment Expenditures - Alberta

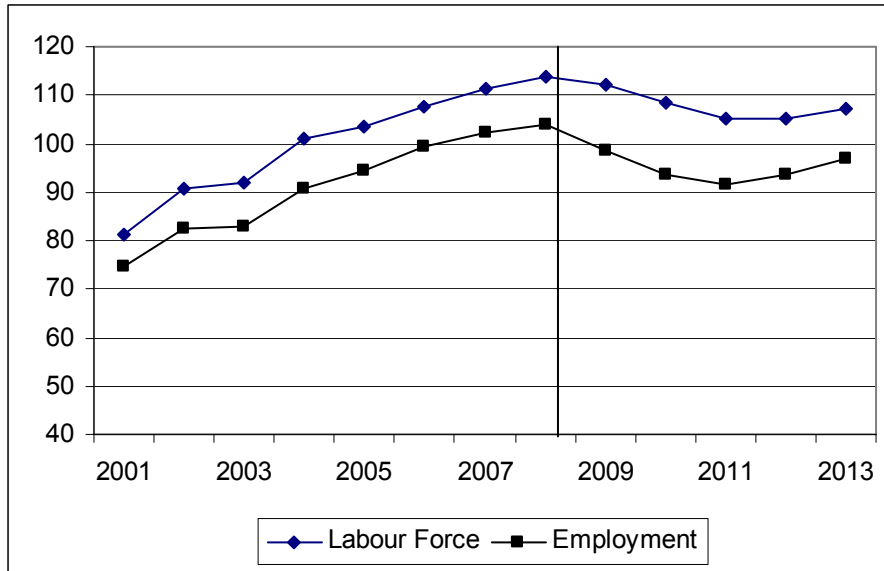
	2003	2004	2005	2006	2007	2008	2009-13*
Residential Investment (97 \$Millions)	6288	6105	5638	5620	5742	5962	4945
<i>% Change</i>	1.2	-2.9	-7.7	-0.3	2.2	3.8	-3.6
New Housing	4272	3981	3449	3366	3388	3525	2231
<i>% Change</i>	-0.4	-6.8	-13.4	-2.4	0.7	4.1	-8.6
Renovations	2016	2124	2190	2253	2354	2436	2714
<i>% Change</i>	4.6	5.4	3.1	2.9	4.4	3.5	2.2
Non-Residential Investment (97 \$Millions)	32567	34847	38056	41222	42671	43309	43966
<i>% Change</i>	-6.0	7.0	9.2	8.3	3.5	1.5	0.3
Engineering Construction	13568	14268	15614	17263	18005	18479	18432
<i>% Change</i>	-8.3	5.2	9.4	10.6	4.3	2.6	0.0
Building Construction	2538	2789	3042	3210	3308	3342	3508
<i>% Change</i>	-9.8	9.9	9.1	5.5	3.0	1.1	1.0
Industrial Construction	601	678	776	914	948	936	901
<i>% Change</i>	8.1	12.7	14.5	17.8	3.7	-1.2	-0.7
Commercial Construction	929	1028	1071	1019	1050	1073	1153
<i>% Change</i>	5.2	10.7	4.2	-4.9	3.0	2.2	1.5
Institutional & Government Construction	1102	1176	1288	1370	1403	1426	1547
<i>% Change</i>	-23.7	6.7	9.5	6.3	2.4	1.7	1.6

*Growth rates refer to average period growth, levels to the 2013 value

Source: **Construction Looking Forward, Labour Requirements for Saskatchewan from 2005 to 2013**, Construction Sector Council (June 2005)

Labour Force and Employment Outlook

Figure 3
Construction Labour Markets in Alberta



Human Resource Challenges in the Masonry Industry

At the start of decade there were approximately 16,000 workers and over 3,000 contractors (excluding self-employed) that earned their living from masonry work in Canada. The masonry industry was hard hit by the recession of the mid-90's and employment levels and apprenticeship registrations in some regions are still recovering to attain levels experienced in the late 1980's.

- **1990's Slow Recovery.** During the early 1990's employment for bricklayers dropped by almost 60% before recovering from 1999 to 2002. The recovery, however, is incomplete for some provinces. Based on Statistics Canada 2004 Labour Force Survey data there were approximately 12,600 employed as bricklayers in Canada, up from the lowest point of 7,300 but below the 1987 peak of 18,200.

A similar pattern of decline and recovery was reported in the western provinces where employment of bricklayers decreased from a high of 2,800 in 1987 to a 1,200 low in 1996. Estimated employment in 2004 was 2,500, still well below the 1987 peak. (*Note: the western provinces labour force statistics include British Columbia. Due to small sample sizes the labour force survey could not breakout bricklayer data for the Prairie Provinces.*)

- **Loss of Workers.** An implication of these results is that *well over half of employed bricklayers were forced out of the trade* during the recession and it is uncertain how many returned as construction markets improved across Canada in the late 1990s.
- **Skill Shortages.** The labour force trends are consistent with reports of shortages of bricklayers during the peak summer season in many regional markets across Canada in the early 2000s. It was evident that these shortages were related to the major loss of experienced workers during the recession and the slow rate of return during the recovery.
- **An aging workforce.** In addition to the slow recovery of the labour force, demographic data shows that bricklayers are on average older than most construction trades and there is significant risk that large numbers of skilled workers will leave the industry in the next ten to twenty years and may not be replaced if industry does not take action.
- **Recruiting Youth.** A larger problem for masonry is the limited number of young people entering the trade. Those that are entering appear to be less interested in certification and are more specialized in their experience. To meet the immediate industry needs young, inexperienced, uncertified workers were recruited to enter the work force. These new workers added to the substantial gaps in health and safety training of the current work force and contributed to further gaps in some specialized skill areas such as refractory, industrial and restoration work.

Demand for the Trades¹

Demand for newly certified masonry workers will come from the replacement of retiring workers and the need to meet rising demand.

The demand projections explore upper and lower limits that bracket the likely range of construction employment. The analysis examines several components that contribute to the future demand for bricklayers:

- **replacement:** to replace retirees and bricklayers that exit the trade for other construction trades or other industries,
- **trend growth:** to account for increased construction activity over the forecast period, and
- **increased share:** to account for increased construction activity and market share resulting from successful efforts of CMHRC initiatives that promote the benefits of masonry products.

For the western region (Manitoba, Saskatchewan and Alberta), the analysis starts with an estimated total labour force of 1,890 bricklayers working in construction in 2003. Changes to the base labour force are then introduced and traced over the forecast period of nine years from 2005 to 2013 to determine the demand implications.

Industry projections are based on forecasts prepared by the Construction Sector Council (CSC) and analysis by Canadian Masonry Human Resources Committee (CMHRC).² The CSC analysis projected the level of building activity by province and building type. This projection was adjusted to reflect the mix of construction activity served by masonry contractors.

The base line forecast for employment of bricklayers was for a 1.0% average annual growth from 2005 to 2013.

The results of the demand scenarios are summarized in **Exhibit 5.1**. The Exhibit shows the total and annual average change in the workforce under different circumstances and assumptions for the forecast period.

Replacement Demand

The first component of the demand analysis is to establish the number of new workers required to replace bricklayers that retirement or exit to other industries over the next nine years.

¹ Canadian Masonry Human Resources Committee 'The Canadian Masonry Industry, A Call to Action' (March 2004).

² CMHRC

The analysis starts with a simple estimate of the number of retiring bricklayers. It is assumed that all of the current work force age 55 and over retire in the next nine years. For the Western provinces this results in the exit of 355 bricklayers (or 43 per year) between 2005 and 2013 (see Exhibit 5.1).

The replacement of the existing workers represents the lower bound of the demand analysis. In order to maintain its existing workforce the masonry industry must replace departing workers.

**Exhibit 5.1 – Demand for Bricklayers, 2005 - 2013
Change in Labour Force, # of Workers**

	Manitoba	Saskatchewan	Alberta	Prairies
<u>Demand Scenarios</u>				
a. Replacement	80	25	250	355
b. Trend Growth	50	30	60	140
c. Increased Share	100	60	120	280
<u>Total Demand</u>				
Trend + Replacement	130	55	310	495
Increased Share + Replacement	180	85	370	635
Source: Prism Economics; Statistics Canada, 2001 Census; Construction Sector Council				

Growth Scenarios

In addition to the replacement of workers the demand analysis must take into account the potential for industry growth through increased overall construction activity and the increase of masonry's market share. Labour demand under industry growth scenarios would be in addition to replacement workers. Two growth scenarios are considered.

A "**Trend growth**" scenario traces the labour impact associated with a general increase in construction activity. The scenario is based on forecasts prepared by the Construction Sector Council (CSC) and analysis by Canadian Masonry Human Resources Committee (CMHRC). The projection calls for slow but steady weakening of the residential market and improved markets for non-residential construction. The mix of activity restricts the overall growth in demand for bricklayers in the Western Provinces to just less than 1.0% annually.

Under this scenario, the demand for bricklayers over the forecast period increases by 140 workers or an average of 15 per year between 2005 and 2013 (see Exhibit 5.1). These workers would be in addition to the 355 replacement workers

An alternative growth scenario is for masonry to capture an “**increased share**” of construction activity. Under this scenario the expected rate of growth in masonry markets doubles on the assumption that efforts to regain market share are successful. The increase worker demand is estimated at 280 bricklayers over the forecast period or 31 per year (see Exhibit 5.1).

In summary, the masonry industry can expect to meet the demand for a minimum of 495 and a maximum of 635 bricklayers over the next decade. The lower number allows for the replacement of retiring workers and a 1% annual trend growth in construction activity. The higher demand represents replacement workers, growth in construction activity and masonry capturing a larger share of the market.

Demand for Certified Bricklayers

Based on the demand projections under the two growth scenarios the demand for certified workers were estimated under two sets of assumptions. The first case assumes that the current proportion of the workforce that is certified is maintained over the forecast period from 2005 to 2013. Based on 2001 Census data, the percentage of the bricklayer labour force that is certified is estimated at:³

- Manitoba: 63%,
- Saskatchewan: 39%, and
- Alberta 54%.

In the second case, the certified proportion of the workforce for Saskatchewan is increased from the current level of 39% to 50% by 2013.

The implications of the analysis are summarized in Exhibit 5.2. Under the most limited assumptions of trend growth and certification, the trade will require over 495 new workers with over 267 of these new workers to become newly certified trades people over the coming decade. Under replacement and increase share the number of certificated workers increases to 635 over the next nine years.

These are conservative targets. Conditions could increase the need for certified workers under a variety of conditions like increased early retirements and added demand. The levels chosen here are deliberately left within reasonable reach of current activity.

³ Statistics Canada 2001 Census

Exhibit 5.2
Demand for Certified Bricklayers, 2005 to 2013
Change in Labour Force, # of workers

	Manitoba	Saskatchewan	Alberta	Prairies
% of Labour Force Certified	63%	39% / 50%	54%	
<u>Demand Scenarios</u>				
a. Replacement	50	10 / 13	135	195
b. Trend Growth	30	12 / 15	30	72
c. Increased Share	60	24 / 30	65	280
Total Demand				
Trend + Replacement	80	22 / 28	165	267
Increased Share + Replacement	110	34 / 43	200	344
Source: Prism Economics				

Rationale for Training Models

The concept of a training improvement coordinator was developed during consultations with the masonry industry in Alberta, Saskatchewan and Manitoba. It was not part of the original scope of the study. The initial concept was to look at the feasibility for a Regional Training Centre, serving the needs of the masonry industry in the Prairie Provinces. There were four basic models for training delivery considered in the consultations. Model 1 and 2 – the Regional Training Centre and The Satellite Training System with a Training Improvement Coordinator are discussed in this chapter. The models specific to Saskatchewan are discussed in Section One, Tab 6.

The masonry industry in Saskatchewan, as well as Alberta and Manitoba has been involved for a number of years in Pan-Canadian studies looking at human resource needs and workforce development. This research identified issues and concerns about the current supply of workers and the level of training in place to address those needs. The Saskatchewan masonry stakeholders identified a number of issues faced by the industry. These include:

- Getting people into the training system.
Bricklaying is not considered one of the more technical trades and yet it requires a high level of skill and knowledge of building systems to advance one's career. The industry needs to attract the right people, who will go through training and stay on as skilled bricklayers, and move up to become forepersons and supervisors. Supervisory skills are also a growing demand area for the industry.
- Significant drop out/discontinuation rates of apprentices.
As data in Tab 5 indicates there are large numbers of apprentices that do not complete the program.
- Low rate of certification in the workforce.
This varies to some extent by province, but most are short of the 50% certified worker goal set out in by the Canadian Masonry Human Resources Committee in 2002 to 2004 (www.cmhrc.ca). In the work undertaken by the CMHRC it was stated that the industry should set an objective of having at least 50% of the masonry workforce certified.
- Issues with Inter-Provincial/Red Seal (IP) examination.
Over the past few sessions of writing the IP exam a number of apprentices, in Saskatchewan, have failed to get their Red Seal. These same students did not have the same difficulty in passing their level exams. The employers and Union are committed to having certified workers and require this issue to be addressed. It has been noted that the results for the last IP exam significantly improved from previous years.
- Apprentices falling "between the cracks".
There is no user-friendly tracking system for apprentices. Some move in and out of the system, going to work and never returning for in-school training. There does not appear to be a systematic approach, on an industry wide basis, to following up with apprentices and keeping them in the industry. The union keeps track of apprentices that are its members.
- Engaging more employers in training.
This is a critical matter, as without employers who train apprentices the system

fails. The more employers involved the more apprentices can be integrated into the workforce and the investment in training would be shared over a broader base.

- Effectiveness of on-the-job training.
By engaging more employers in on-the-job training (OJT) the risk increases of having disparate approaches to providing the 80% of training that employers are responsible for. Currently, there are only very general standards or guidelines for OJT, which were developed in Saskatchewan. These guideline provides an overview of both the in-school and on-the-job portion for training. There is also a national initiative, funded by the Construction Sector Council, to develop Pan-Canadian guidelines for a masonry on-the-job training program (See Tab 7 for background).
- Improvements to curriculum – mobility of apprentices.
One of the major concerns articulated by the Masonry industry is the inconsistent curriculum being taught to apprentices across the country. Not only does the content of the curriculum need to be addressed, but also more importantly a consistent and comprehensive approach to delivering that content needs to be implemented. This includes, sequencing, common training materials and consistent testing at the end of each level apprenticeship. This would ensure a more cohesive approach to training apprentices, allowing them the flexibility to follow the work between provinces and take the in-school training in different institutions if required.
- Avoid duplication of efforts.
There are elements of duplication across the Prairie Region, as well as other provinces. Currently, each province spends to develop curriculum, then training institutions have to develop training curriculum, training aids and materials. Most existing programs for attraction and retention of apprentices are also implemented locally or within a province, while the labour force requirements transcend borders. If funding could be pooled to address some of these elements a stronger product could be developed, and also help maintain a common approach across provinces.
- Manage risk to training programs
Apprenticeship programs face an element of risk. In the early 90's there was virtually no training for bricklayer apprentices, due to the downturn in the market. The masonry industry is paying a price for that, right now, as it is missing an age cohort of the workforce. Some provinces or regions, have smaller programs based on the size of the industry and population, it is sometimes difficult to put together a full class of second or third year apprentices, and those classes are at risk of being cancelled. It becomes more difficult to make up for these shortfalls as there are only so many apprentices that can be integrated into the workforce at any one time – it also results in many not completing their training. The industry and trainers must work together to ensure to reduce barriers to training and maintain a consistent program.
- Pension Plan Sustainability
Older workers who have contributed to pension funds throughout their career now face a risk of pensions not being able to meet the promised pay out. With a shrinking pool of contributing workers, lower than projected return and longer life-spans, there is a greater burden on younger workers to maintain existing pension

levels. This will not be sustainable over the long term. There is a finite number options to address this issue; pay outs will have to be reduced, the contribution levels needs to be increased (without the promise of increased benefits) or the pool of contributing workers needs to expand.

Four models of training delivery were discussed with industry as a vehicle to address the issues listed above.

1. Regional Training Centre

This was the original premise for the study. It was a concept developed to address the aforementioned issues. A financial model was created for this model and discussed with the labour and employer representatives from all three provinces.

Scope of model:

- Inclusive of Alberta, Saskatchewan and Manitoba. B.C. may be involved later in the process
- New building of approximately 15,000 sq.ft.
- Location potentially determined by concentration of apprentices and size of market (cost)
- Staffed by two permanent employees (director and head instructor), with part-time administrative support and part-time instructors (as needed)
- Prairie provinces training board established to oversee the management and directions

Rewards

- Systematic and consistent approach to training
- Economies of scale
- Broader support base from contractors and suppliers
- Common curriculum
- Ability to track apprentices
- Raise image of industry
- More industry input into training

Risks

- Cost
- Lack of support and seat purchase money from provinces (training delivery agent status)
- Difficulty in getting apprentices to travel
- Lack of support from contractors for centralized model
- Location is an issue
- Major shift from current training model

2. Satellite Training System with Training Improvement Coordinator. Saskatchewan develops new industry-owned facility.

This model was developed to take into consideration that provinces outside of Saskatchewan may not wish to change their current system of training, but would

be interested in coordinating it better. The second version of this model would provide for the rental of training facilities.

- ❑ Training facilities in Alberta and Manitoba continue to operate in their current fashion
- ❑ Saskatchewan builds training centre to suit provincial needs
 - Smaller facility of approx. 5,000 sq.ft
 - One full time instructor/director and part time admin support
- ❑ The alternative would be for the Saskatchewan industry to rent the appropriate facilities. This model has worked for the Masonry industry in two other locations in Canada.
- ❑ Training Facilitator's role is to coordinate the training among provinces, develop regional (multi-provincial) training plan, track apprentices, and facilitate development of core curriculum and sequencing between provinces.
- ❑ Prairie provinces training board established to oversee direction and review results

Rewards

- ❑ Focused approach to training
- ❑ Industry advocate to address barrier to solution and red-tape
- ❑ More emphasis on effective promotion and assessment
- ❑ Work towards common curriculum
- ❑ Better tracking of apprentices
- ❑ More opportunity for effective industry intervention
- ❑ Shared costs of resources
- ❑ More dialogue between provincial training systems
- ❑ Smaller training systems such as Manitoba and Saskatchewan would have support mechanisms
- ❑ Saskatchewan industry would be in control of own training

Risks

- ❑ Cost of the training facilitator and the time it would take for that role to be effective in the training environment
- ❑ Cost to Saskatchewan for the number of apprentices it would have in the system
- ❑ Province may not grant training delivery status to industry training centre
- ❑ Province may not provide seat purchase money/block funding

This Business Plan provides details on the Training Improvement Coordinator and the feasibility for a Saskatchewan Training Centre. The industry in Saskatchewan is committed to improve the quality of its workforce and would consider either option as a method to achieve that goal.

Detailed Descriptions for: Training Improvement Coordinator

Description of Training Improvement Facilitator Function

Objectives:

- ▶ To spearhead efforts of masonry industry in Alberta, Saskatchewan and Manitoba to attract and retain apprentices.
- ▶ To interface with apprenticeship branches and training institutions and advocate on behalf of the masonry industry.
- ▶ To promote dialogue and coordination between training systems and industry.
- ▶ To enable transfer of apprenticeships.

Responsibilities:

- Implement a regularly scheduled information session in each province to identify potential candidates for apprenticeship (first level assessment), in consultation with industry stakeholders.
- Adopt a screening system to select candidates for job placement/apprenticeship
- Meet with apprentices at a point during their in-school sessions to discuss issues regarding their training (in-school or on-the-job)
- Work on various promotional efforts with industry in each province (see paper on attraction/retention)
- Work to engage the supplier sector
- Liaise with training institutions around in-take numbers and determine the number of active apprentices
- Review training curriculum and make recommendations as to how it could be synchronized between provinces – working with the apprenticeship advisory boards.
- Track apprentices with employers and union (where are they working, when are they scheduled to go to school)
- Participate in any instructors' forums and/or dialogue with trainers
- Work with aboriginal groups to identify potential candidates for apprenticeship, but ensuring continuation of and non-interference with existing programs.
- Work with employers to deliver on-the-job training. Engage new employers into taking on apprentices.
- Review Inter-Provincial Examination pass rates and identify any issues that arise. Work with industry and government to resolve issues.
- Identify sources of funding for training/promotional programs in each province and from federal and other sources.
- Meet with contractor groups on a quarterly basis to provide progress reports.
- Meet with union at regional meetings
- Others, as assigned.

Location and Reporting Structure:

The Masonry employers as represented by the Canadian Masonry Contractors Association (CMCA) believe that a Training Improvement Coordinator for the Western Region could form a critical element in their strategic vision of the masonry workforce. The CMCA already have in place, the administrative and governance structures to manage this initiative, by and throughout the Canada Masonry Centre. Their intent is to proceed to develop their position within a unilateral, management driven framework.

The CMCA would look to incorporate a Western Training Improvement Coordinator as part of a National Training directive. The Board members from Western Canada (two from Alberta, one from Manitoba, one from Saskatchewan and the president of the association, also from Saskatchewan) may form a Western management committee to oversee the function of the Western Training Improvement Coordinator.

By embracing this concept under the umbrella of the CMCA, this initiative could have the support from Ontario and its employer driven training system. This would include access to instructors, for core and specialty areas of the trade, training materials, assessment protocols, an apprentice tracking system and most significantly of all, buy-in from the employer community.

There would also be the ability to support province specific projects, which would be prioritized through a committee for implementation under the Training Improvement Coordinator role. These province specific projects could have a variety of structures (including jointly funded partnerships with labour and/or other interested groups) and would be operated and managed by ad hoc committee structures.

If this initiative was funded under a joint labour/management agreement a separate governance structure would need to be developed.

Location of this function would be influenced by where suitable candidates are located.

Requirements:

- Ability to travel between Alberta, Saskatchewan and Manitoba on a regular basis.
 - Estimates for travel: two trips from home province to each of the other two provinces per quarter – possibly three days to a week each trip.
 - Meeting with instructors if there is another forum organized (possibly in Ontario)
- Knowledge of the apprenticeship system (in-depth in at least one province and overview of the other two).
- Familiarity with masonry (not critical). This knowledge can be acquired through a proper ramp up period.
- Has experience with trades, training and/or marketing
- Skills in database management and analysis
- Contacts with relevant government representatives. These relationships need to be effective.

Remuneration:

- From \$85 to \$100K per annum, plus benefits (30%). Maximum total package approximately \$130K

Expenses**Operating: \$50K to \$60K**

- A toll free number \$1,000
- Travel Budget of \$20,000 to \$25,000 (assuming approx. 60 to 70 days of travel)
- Long-distance phone plan - \$2,000
- Promotional budget: \$5,000 to \$10,000 (depending on initiatives)
 - cost of orientation sessions
 - material for career days
 - brochures/hand-outs
 - pins/pens/hats/T-shirts
 - web-site maintenance
 - etc.
- Printing/Photocopying \$1,000
- Administrative help (2 days per week for 42 to 44 weeks) - \$10K to \$12K
- Mobile Phone - \$2,000 (including a long distance plan)

One-time/Capital: \$13K to 15K

- Lap-top: \$2,500 to \$3,500
- Digital camera: \$500
- Office furniture: \$3,500
- Display booth \$3,500
- Projector - \$2,000
- Other \$2,000

Total budget of \$225K to \$250K per year. Including contingency costs, special programs, web-site development and others as identified.

Regional Training Improvement Coordinator:

Operations Plan

Training Improvement Coordinator:

- ▶ To spearhead efforts of masonry industry in Alberta, Saskatchewan and Manitoba to attract and retain apprentices.
- ▶ To interface with apprenticeship branches and training institutions and advocate on behalf of the masonry industry.
- ▶ To promote dialogue and coordination between training systems and industry.
- ▶ To enable transfer of apprenticeships.

Location:

- Not yet determined, but likely near the largest market and pool of apprentices

Funding:

- Developed through multi-partite formula including labour and management from the three Prairie Provinces.
- Or through an Employer Funded initiative through the Canadian Masonry Contractors Association (see Tab 7)

Role:

See Tab 7

Reporting Structure:

Multi-Partite Structure Including Labour and Management:

- A Prairie Provinces Training Improvement Board would have to be created with participation from management and labour from all three provinces (assuming financial contributions from all parties)
- The Board of Directors would:
 - exercise overall the function of the Training Improvement Coordinator
 - approve all policies
 - approve all activities
 - authorize all grant applications and assume legal responsibility for grants
 - approve annual operations plan and budget
 - approve any recommendations from provincial sub-committees
 - appoint auditors
 - approve all contracts and leases
 - approve all major expenditures
 - be equal employer and union membership
 - meet semi-annually or more frequently as required

- Provincial Sub-Committees:
 - Each province could initiate a sub-committee of labour and management to identify key priorities for their region, and pass them to the Board of Directors for approval
 - Work locally with the Training Improvement Coordinator on local issues.

The alternative structure would be an unilateral employer driven program as described in Tab 7.

ASSUMPTIONS FOR TRAINING IMPROVEMENT COORDINATOR FINANCIAL MODEL:

RECEIPTS:	
Gross Contributions to TTF	Based on \$.27 for Year 1-4 and \$.30 for Year 5-6
Other Grants	Not applicable at this time
Interest	Estimated at 2.5% - Year 1 on the lump sum invested, Year 2 to 6 based on the amount in the cumulative surplus
Other (i.e. partners)	Other training partners such as suppliers, will require \$25K per year, adjusted for inflation
Total Receipts	It will take approximately \$225K to \$250 to operate this initiative.
DISBURSEMENTS:	
Management and Administration:	
Administration – TTF	This amount includes, legal fees, accounting costs, administration of the training fund, as well as travel for board members (if required)
Management and Administration -	
Salaries and Administration	This includes salaries for a Training Director/Instructor and Admin support. The instructor is only brought on board part way through Year 1 and admin support brought in part way through Year 2
Occupancy Costs (including rent)	Based on a 300 sq. ft. office space (see breakdown – Admin-TIC). Need to confirm location.
Administration Expenses (office + travel)	Includes on-going office expenses (supplies, communication and a travel budget)
Equipment & Furnishings	Furnishings and equipment (computers, office furniture, fax, printer, scanner, etc.) Small maintenance budget and assumption for replacing some equipment in year 6
Marketing and Promotion	Based on potential elements of marketing strategy – est. between 20K and 22K per annum. Includes, website, brochures, promotional items (pens, pins, hats), professional presentation material, educators tool kit. Other initiatives maybe identified.
Total Disbursements	Once the program is up and running, and most one-time costs have been absorbed it will cost approximately \$225K to \$250/year.
Surplus / Deficit (-) on Year	Based on the above assumptions the program runs in a surplus position year to year.
Cumulative Surplus / Deficit (-) Reserve	A portion of this should be allocated to a reserve fund. Determine reserve levels. Monies over and above the reserve could be used to expand initiatives as per

	direction of industry/ board.
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Elements of a Promotion/Attraction/Retention Strategy: (see attached literature review and materials)

There is a significant amount of research and initiatives in this area. Some examples of national campaigns include:

- The Canadian Apprenticeship Forum
 - Inventory project
 - Web-site: <http://www.apprenticetrades.ca/>
 - Web portal to information on apprenticeship training in Canada
 - Promotion project
 - Web-site: <http://www.careersintrades.ca/>
 - Accessing and Completing Apprenticeship Training in Canada: Perception of Barriers
 - Web-site: <http://www.caf-fca.org/english/accessibility.asp>
 - Consultation paper on Aboriginal experience

- The Construction Sector Council
 - Boilermakers Promotional Campaign
 - Web-site: www.boilermaker.ca
 - Educators tool box
 - Success stories
 - Aptitude quiz
 - Presentations for industry champions
 - Trade description

 - Ironworkers Aboriginal Career Awareness Program
 - Canadian Masonry Human Resources Committee – On the job training standards (pending)

- Local trade initiatives, studies done by colleges and other local organization
 - See attached summary.

A *Skills Canada* study found that recruitment campaigns had the following components:

- Sustained, Integrated, Provided consistent message, Had a branded look and feel, Used appealing creative, Had marketing coordinators driving the program at the grassroots level¹

Potential Initiatives:

- Communication/promotion
 - Web-site
 - Brochures
 - Material for Educators
 - Material for Employers
 - Industry spokespeople – success stories
 - Exposure at career fairs
 - Video/CD-Rom
 - School visits

¹ Skills Canada – CD Rom, Skills Work! Barriers and Motivating Factors that Influence Career Choices, Skills Canada.

- Community Outreach

- Organizational/Structural Changes
 - Selection process (is there one?)
 - On the job training approach
 - Mentoring
 - How apprentice is treated (respect/value)
 - Entry issues
 - How to get a job
 - How to assess aptitude
 - Remuneration/Steady employment
 - Career growth potential (for some)
 - Safety consideration
 - Financial support
 - Encouragement to attend school

- In-school Training
 - Relevant Materials
 - Up to date curriculum
 - Application of on-the-job skills

- Linking with other initiatives to gain greater exposure
- Customized approach for designated groups

TAB 1

Current Training Analysis

- a. Technological Change
- b. Apprenticeship Training

Innovation, New Materials, Processes and Quality

There is a general impression that masonry suppliers and installers are a “low tech” sector with limited opportunities for innovation and new processes. *In fact, the industry faces many changes in materials and processes and it attaches a high priority to raising industry standards in this area.* The Masonry industry is also faced with changing design standards that will have a significant impact on not only how masonry is designed, but also how it is installed. This in turn will affect training of masonry workers.

The focus of this review is to determine what technologies should be introduced to the apprentice and/or the journeyman. For example, masonry work is becoming more technologically advanced with the use of new equipment and materials. Part of this analysis will comment on the implication on the cost and training requirements to introduce new technology.

There are also new styles and types of bricks and blocks. Advanced techniques are being used in restoration and repair and there are new types of pre-cast or prefabricated masonry components and insulated panels. New building envelope systems affect masonry work. Finally, masonry is being used more in load bearing applications that require specific skills.

Other changes are prompted by regulations. For example, new building codes and seismic requirements will alter the design and installation of masonry.

These new developments combine with the traditional advantages of masonry to create significant growth potential for the trade. The Canadian Masonry Contractors Association and related groups like the new Canadian Masonry Design Center are working to promote these opportunities. An initial focus is on the architects and engineers – both in school and on the job. Increased emphasis on masonry in academic programs, both research and classrooms, is a major priority. Increased upgrade training and promotion for working designers is also underway.

These efforts must be complemented with an increase in the number of qualified bricklayers. In discussions with industry it has been noted that designers and owners have declined to use masonry in new buildings because of concerns about the availability and quality of workers to install the material.

Computerization

The masonry trade is very much a “hands-on” trade, characterized by manual skills. It is one of the few construction trades where computers have not become part of the installation process. However according to Masonry Magazine, the “advent of computers and the Internet has been a major factor and certainly revolutionized the way contractors manage and complete their projects”.

There are software products that allow contractors to store, manage and share project information with team members, clients and consultants. This includes CAD drawings, schedules, photos and notes. As computerization of project management expands the requirements for basic computer skills will come down to the job site, at least for the supervisor or foreperson.

There is also a growing incidence of Computer Aided Design (CAD) and estimating. Masonry contractors must be increasingly able to work with computers, to operate various types of software and interpret output. There are also fairly complex estimating programs available that allow for consideration of various elements, such as:

- Mortar strengths
- Openings (doorways)
- Different combinations of masonry bricks or blocks, if they are required for the same job
- Rebar and grout requirements
- Sloped or step walls
- Concrete footings
- Different or multiple work crew requirements
- Covers, corners and control joints, and
- Caulking required around joints and openings.

At the job site this trend translates into more workers being able to read computerized drawings. And as computerization may add to creating more innovative designs, it will also lead to more challenging installations.

Currently there is a survey in the field asking contractors to identify their requirements for workers' computer skills

Use of New Materials

Although bricklayers are still laying bricks and blocks, there have been incremental variations in these products. One of the major trends in the use of new material is in the ingredients and effectiveness of mortars, adhesives, resins and grouts. The application of new formulations has been gradual and ongoing. Characteristics of these newer materials includes:

- Greater extreme temperature resistance
- Lighter
- Flexible/breathable
- Higher strength
- Less shrinkage
- Better slip resistance
- Greater chemical resistance
- Odour free installation; and
- Rapid curing/setting.

Self-consolidating grout is one of these new products. It is a highly fluid and stable mix that eliminates grout vibration and consolidation procedures, thereby reducing masonry wall grouting time and contractor labour costs. Conventional grout mixes often require job site re-tempering with water to facilitate ready-mix truck discharge and grouting of masonry walls. This can be time consuming and reduce grout strength performance.

There is also a growing range of masonry products, such as larger bricks/blocks, veneer products and mortar-less brick. There is also on-going enhancement to the physical properties of masonry products, such as, aerated (cellular) blocks, chemical resistant and autoclaved blocks.

Brick manufacturers have added sizes and textures to their product lines, and a variety of colours to respond to customer demand. There have been systems of matching brick and mortar developed to simulate a stucco look. Trends in design seem to incorporate using more banding and mixing of different brick colours and buildings. This has implications on the installation, requiring workers with more skill and knowledge.

Design Codes and Regulations

The next revision of the National Building Code of Canada will be adopted in the spring of 2005. Subsequently, revised Provincial Building Codes based on the national model will be adopting over the following year. These codes are being developed concurrently with a large amount of interaction between the national and the provincial bodies as they work to develop an “*objective*” based code that is drastically different from the past “*prescriptive*” based.

The changes to these CSA Standards will have a significant impact on the design of masonry building systems and will require upgrade training to those persons constructing these buildings. The new CSA masonry design standard utilizes state-of-the-art masonry research documented over the past 10 years to improve the current design methods for masonry building systems and introduces new masonry building systems. These improvements will increase the cost effectiveness of masonry building systems in today construction market. As a result, designers will need assurance that these masonry systems can be constructed effectively. This results in a need to properly educate the masonry labour force on the changes to the new CSA masonry construction standards that have been developed to be consistent with the new and/or emerging design standards.

Workers need to expand their skills to construct the improved or new masonry building systems to the new requirements of the design and construction standards. This will impact both the incumbent workforce and new entrants to the industry. Upgrading will be required for existing journeypersons and new training materials will need to be developed for apprentices.

Tools:

A mason’s tools have for the most part have remained unchanged over many years, however improvements have been made to the traditional devices to make them more efficient.

- Trowels
 - There have been attempts to automate masonry projects but it is unlikely that the trowel will be replaced any time soon.
 - There have been modifications made to trowels to make them more comfortable to grip and give them some flexibility
 - Ergonomics have also been incorporated into stone working chisels and hammers
- “The Bricky”
 - Consists of two forms, one vertical and one horizontal. Once a course is complete the horizontal form uses spring guides to lie perfectly on top of the wall. A center cut in the form allows the mason to lay a perfect recessed joint, while two bubble vials keep everything level. Masons are able to slide the tool down

- the wall without disrupting the mortar. The second form is used to create a perfect vertical joint.
- It also helps keep the mortar from sliding down the wall or into the wall cavity.
 - Wall Scrapers
 - In the past masons used a small stone block to clean the joints and scrape burrs of blocks. Wall scrapers come with long handles that allow the mason to use his upper body strength, not just wrist strength, to carry out this function.
 - Wheelbarrows
 - There are plans to introduce wheelbarrows with heavy-duty spring acting to assist the user in pushing a wheelbarrow up steep inclines.
 - Measuring Devices
 - Innovation includes laser levels, and combinations of tape, transit and laser systems to make grading easier.
 - New products help to accurately mark off elevation, and allow it to be done using one crewmember, while traditional systems required two crewmembers.

Impacts on Training – To be determined

Materials

Equipment

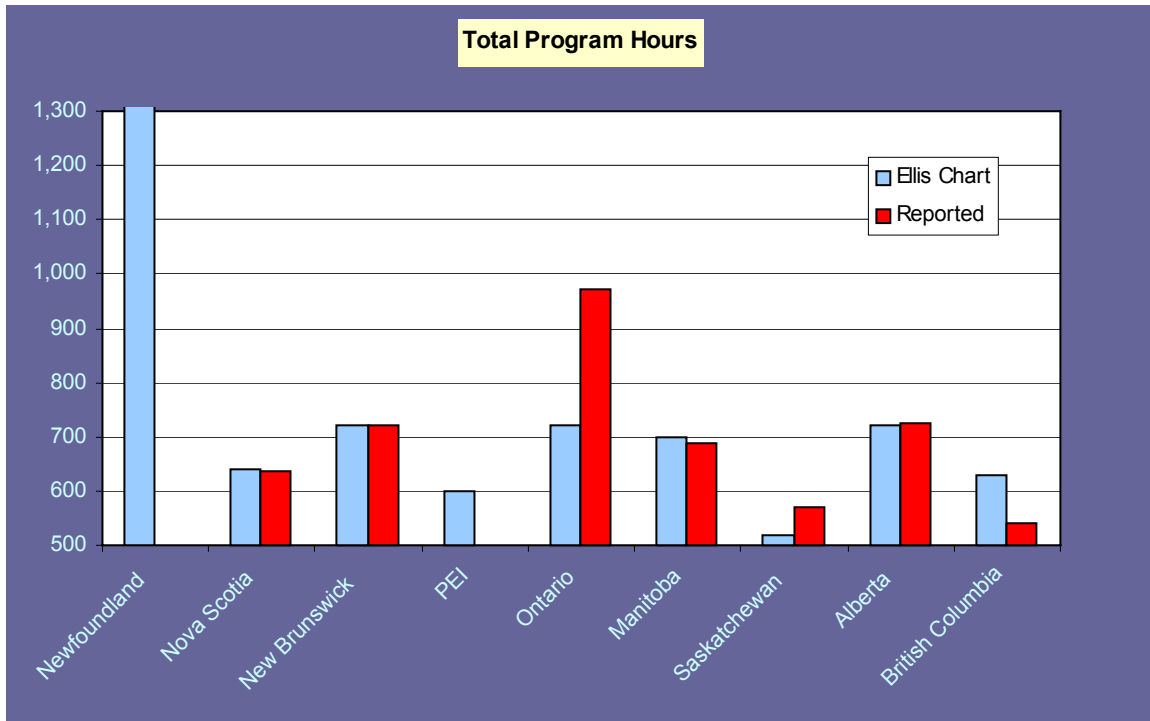
Design Standards

Analysis of Apprenticeship Training

Profile of Existing Training:

Apprenticeship Training:

Apprenticeship training in the masonry trade is delivered at SIAST at the Palliser campus in Moose Jaw. There are three levels to apprenticeship training consisting of 24 weeks of training (3 – 8 week in-takes) for a total of approximately 570 hours.



Pre-Apprenticeship Training:

Pre-apprentice training is important to ensure that apprentice applicants are familiar with the trade before making a commitment to apprenticeship. High discontinuation rates waste training resources, frustrate employers, and ultimately discourage entry into the trade. The experience of other trades is that pre-apprentice significantly reduces the dropout rate from apprenticeship and thereby avoids wasting public and industry training resources. At present, in the masonry trade, there is very little pre-apprentice training delivered. During the course of this study IUBAC LU 01 SK offered the following:

In partnership with the First Nations Employment Centre and the support of provincial masonry contractors, IUBAC LU 01 SK has designed a “Pre-Apprenticeship Training Course” that will be delivered through the Saskatchewan Institute of Applied Science and Technology (SIAST) – Wascana Campus. The fourteen (14) week course consists of safety training, cultural awareness training, the first term apprentice curriculum and approximately five (5) weeks of trowel time.

Studies have shown that there will be a critical lack of masonry apprentices/journey persons in the future and this project will begin to address this particular skill shortage. In addition, the First Nations/Aboriginal sector of the province is under-represented in the trades and this project fulfills that issue as well.

It is anticipated that this initiative can and will become a template for pre-trades training in the masonry industry across Canada.

IUBAC LU 01 SK signatory contractors have committed to taking the graduates on as apprentices once work commences in the Spring of 2005.

Deficiencies in Existing Training:

The training challenges of the masonry industry are discussed in detail at Tab 5 - *Human Resource Challenges of Employers in the Masonry Industry*.

The existing training effort and training capacity is seriously deficient in a number of respects:

1. Apprentice recruitment and training needs to be increased to meet the needs of employers. This will require the ability to sustain the increase in training as experienced in the past three years.
2. More importantly retention rates in the apprenticeship program need to be improved. Although, there have been more apprentices registered, recent completion rates are estimated at 25%. This is an inefficient use of resources.
3. Apprentices indicated dissatisfaction with the time allocated to hands on training. Masonry is a "craft" trade and requires a high degree of hand skills.
4. The school program does not reflect hours on the site. A significant number (58% responding to the survey) of apprentices indicated that school did not prepare them for working on-site.
5. The location of training is not conducive to industry involvement, as most employers are in the Saskatoon area. Approximately half of the apprentices responding to the survey indicated that the current location was a weakness. The same proportion indicated they would like to see more involvement from the employers in the apprenticeship system, and the distance to the training facility makes this more difficult.
6. Some areas of the trade are not sufficiently covered; in fact no instruction time is targeted towards maintaining and restoring existing masonry. Employers indicated a shortage of restoration skills, and few apprentices work in this area (due to lack of skills). This is a potential growth area for the industry.

Other deficiencies in the program, are work site preparation, cleaning and disassembling the work-site, placing grout, building structural masonry components, building/installing structural and non-structural refractory components, below grade water-proofing. These are all areas that are covered in other provinces.

7. The pass rate for the Inter-Provincial/Red Seal exam has been low, even while apprentices pass the level exams. When apprentices were evaluated through another training institution again IP requirements, areas of weakness were identified. Improved instruction is necessary to address this issue. It has been noted that there have been recent improvements in the pass rate for the IP and the industry would support those efforts.

In response to the survey of apprentices, one apprentice wrote in a letter, from which several excerpts illustrate some of the issues faced by the current apprenticeship system.

- In the past two years, not one of the units has been taught in its entirety. Learning outcomes, including, step building, pavements, patio construction; decorative masonry, overlay, cleaning, pointing restoring, insulation, parging and caulking, were all excluded.
- Issues around classroom space and scheduling.
- Exams are re-written until the average of the class improves
- In the past 2 years I have only received marks on one of my performance tests
- The final performance test consisted of building a fireplace – the entire class worked on one fireplace
- The curriculum of the program is excellent and I would have very much liked to learn all that the first 2 years of the program offered.

-

Impact of Saskatchewan Masonry Training Centre:

The Saskatchewan Masonry Training Centre of Excellence will enable the masonry industry substantially to address the deficiencies in the existing institutional arrangements for training.

TAB 2
Attraction and Retention
Strategy

Recruitment and Retention of Apprentices

Apprentice Retention in the Skilled Trades – A Groundbreaking Study Prepared by the Sir Wilfrid Laurier Consulting Team for the Industry-Education Council of Hamilton, July 2001

<http://www.iechamilton.on.ca/pdf/report%20summary.pdf>

<http://www.iechamilton.on.ca/pdf/CompleteReport.pdf>

- Costs of Turnover
 - Approximately 30% (106) of 350 apprentices at Mohawk College surveyed have changed jobs at least once during their training
 - Employee turnover is very costly in terms of direct and indirect expenses to a business and poor apprentice retention may be a real threat to a business' long term viability
 - Increasing costs associated with recruitment and turnover. Some reports indicate the costs for recruiting a new employee range from 50 to 100% of their first year's salary.¹
- Particular challenges to recruitment and retention of skilled trades:
 - The sector tends to have a poor image among parents, school counsellors and students
 - The trades in general are not promoted to students and available information is limited
 - The costs and commitment required by an employer to hire an apprentice are significant. The high financial commitment can act as a deterrent to accepting new apprentices.
 - Entry wages (a sliding percentage of the fully licensed trades person) are low
 - Working conditions are often poor
 - Limited opportunities for career advancement force workers to leave their employers
- Survey – 350 apprentices at Mohawk College
 - 37.5% - industrial
 - 17.9% - motive power
 - 44.5% - construction
 - 77.9% - 30 years or younger
- Results of two focus groups (total of 20 participants) with apprentices who changed employers during course of apprenticeship
 - Participants frustrated by lack of communication between the college and their employers
 - What makes a good employer??
 - Employers need to have a positive attitude, show respect
 - Mentoring seen as very beneficial, especially when the mentors were current in their knowledge and were willing to assist the apprentices at the apprentice's level
 - Appreciation/ recognition
 - Up to date training/ diverse training opportunities
 - Interesting work use of company vehicles
 - Provisions such as uniforms and tools
 - Performance incentives (i.e. trips, money)
 - Respect
 - Benefits
 - Better compensation
 - Quality of work
 - Reasons for leaving last employer??
 - Poor working conditions
 - Personal interests in diversification
 - Lack of respect
 - Lack of responsibility
 - Verbal abuse
 - Unsteady/ lack of work hours

¹ Hanney, M., Northam, M., Low-cost strategies for employee retention, *Compensation and Benefits Review*, Volume: 32, Issue: 4, 2000.

Four basic components that affect employee retention:²

- **Effective Management** (Recognition – offering praise, service rewards, listening to employees, strong employer/ employee relationships, effective communication)
- **Career Development Opportunities** (Chance for growth and development within the organization, tuition assistance, on the job training)
- **Life-Work Balance** (flexible schedules, child assistance, wellness and fitness centres, etc., social environment of the workplace)
- **Compensation/ Recognition** (Wages, Health/ Benefit program, Other Benefits (tools, mileage, uniforms, etc.)

Key Retention Factors identified from retention theory and primary data collected:

1. **Appreciation** (apprentices want to be appreciated by their employer)

○ **Retention Strategies:**

- Thank employees
- Use an individual appreciation event as an opportunity to increase the company spirit
- Provide incentives – be creative – offer social or financial rewards
- Inform apprentices about company activities and performance
- State your job expectations specifically and clearly
- Do not use demeaning or inappropriate language
- Do not penalize workers for something outside of their control
- Do not change the “game plan” without communicating adjustments to your apprentice and receiving their acknowledgement/ input.

2. **Like the People** (apprentices want to like the people they work with)

- Apprentices most frequently indicated the number one reason for staying with their current employer was that they “like the people (they) work with”.

○ **Retention Strategies:**

- Allow your employees to enjoy their work
- Be a role model – interact with employees in a positive way
- Create a fun and social environment
- Encourage your employees to work in a co-operative way
- Invest the time and money to hire the right person
- Do not force employees to work in uncomfortable situations
- Do not be afraid to discipline inappropriate behaviour

3. **Loyalty** (74% of apprentices state that loyalty increases with job satisfaction)

○ **Retention Strategies:**

- Be loyal to your employees – support them when they need you
- State your job expectations specifically and clearly
- Hold meetings, talk to your employees, and encourage feedback
- Appreciate and recognise your employees
- Do not expect your employee to respect you if you don't respect them
- Do not treat your employees like objects

4. **Communication** (effective communication is central to good management)

- Apprentices were resolute in their desire to have their supervisor or boss give them feedback on their work, but not just when there are problems. They want to have things explained to them in a meaningful way and they want to have some input into the scheduling of jobs. They believe that better communication will lead to better planning and greater efficiencies. They do not want to be “mind readers”. They want to know what is going on. A minute's explanation

² Berry, T., Employee Retention – How can the best employees be kept, November 30, 1998, www.swe.org/swe/cd/employee-retention.html.

could save hours of re-work. They do not want to be yelled at, have obscenities directed at them, or be maligned in any fashion.

- Verbal abuse by their employers is one of the most significant complaints by apprentices.
- **Retention Strategies:**
 - Instill the corporate culture of the organisation in your employees
 - Inform employees about the policies and procedures in your organization
 - Actively seek input from your employees. Talk directly to them.
 - Listen to suggestions and insights of your employees
 - Schedule regular opportunities to facilitate open communications between managers and frontline workers
 - Do not hide information from your employees
 - Do not assume your employees understand the company's goals and direction.

5. **Pride** (apprentices want to work in an environment that supports quality work and allows them to be proud of their accomplishments)

- Several apprentices mentioned that they left places of work where the standards were low or where they were encouraged to cut corners. Conversely, apprentices were attracted to employers that stressed quality work.
- The sense of satisfaction that comes from doing a job well seems to impact positively on an apprentices' general sense of job satisfaction.
- **Retention Strategies:**
 - Congratulate workers when they do quality work
 - Provide proper materials and make sure your worker has access to the appropriate tools and training
 - Share accomplishments during regular reviews
 - Provide construction feedback
 - Explain to apprentices how their work fits into the project as a whole
 - Do not set unrealistic time frames – often leads to re-work anyway
 - Do not ever encourage poor quality work

6. **Responsibility** (apprentices more likely to remain with employers that give them a level of responsibility equal to their ability)

- Apprentices spoke of working within systems that did not account for individual differences in learning styles, physical abilities, or personal situations.
- Apprentices also spoke of being passed-over for promotions or assignments because employers decided to place on of their family members or a more senior employee in a position even though the apprentice was the most skilled.
- **Retention Strategies:**
 - Conduct regular employee reviews and adjust the level of responsibility accordingly
 - Give apprentices a level of responsibility that matches their ability
 - Offer new challenges and vary the routine of the job
 - Give up some of your responsibility if appropriate
 - Do not put artificial ceilings over your apprentices
 - Do not forget that you did not know all aspects of your position when you started your career

7. **Safety** (apprentices want to work in a safe environment and produce products and services that are not harmful to the consumer)

- During the group discussions, apprentices felt that health and safety are at times the “most” important element in their decision to leave a place of work.
- Apprentices said they were always being rushed and that this “hurry up mentality” led to accidents on the job and undermined their confidence in the quality and safety of their work. Apprentices talked about being directed to meet the minimum of safety standards and about inspectors that were too busy to properly inspect finished projects.
- **Retention Strategies:**
 - Make safety one of the key success factors for your company
 - Educate your workers on health and safety issues
 - Be a role model at all times
 - Make it someone's job to maintain proper health and safety rules and procedures
 - Do not cut corners and make workplace safety or product safety as trade-off
 - Do not allow employees to operate two sets of safety rules – one for the inspector and one for everyday use

8. **Financial Support** (apprentices want better financial support while attending school)

- Apprentices in the group discussions realize that they are in an enviable financial situation compared to most people taking post-secondary training. However, they are still frustrated by the relatively low level of reimbursement they receive compared to what they could be making if they were employed full time.
- **Retention Strategies:**
 - Have the required paper work pre-approved for your apprentice before they go to school
 - Have another apprentice or journeyman explain the rules/ procedures of going back to school
 - Provide non-monetary incentives to support apprentices before and/ or while attending school
 - Petition government for greater subsidies for apprentices such as tool allotments and tuition costs
 - Do not delay an employee's return to your payroll when he or she finishes a school term
 - Do not ignore the fact that training should have a positive financial impact for the employee when they return from their training

9. **Access to training** (apprentices want better apprenticeship training)

- Access to training became a very complex topic. Apprentices remarked on the shortage of training facilities, the fact that some of the instructors were using old industry information, the course material wasn't diversified enough, and that the provincial requirements for licensing did not align with the requirements of the workplace.
- Many apprentices complained about not receiving adequate training on the job, in some instances only being allowed to perform certain techniques at school, and never on the job. Apprentices complained about being too narrowly focused and becoming "pigeon-holed" in a specific job, thereby, losing some of their marketability and interest in their profession.
- Some apprentices complained that they had to argue and fight to get into school because their employer wanted to keep them working on the job.
- **Retention Strategies:**
 - Understand that an apprentice's training is one of the keys to your company's success
 - Ensure the apprentice receives necessary, up-to-date training on the job.
 - Encourage apprentices to attend additional training opportunities
 - Acknowledge apprentices who receive additional training outside of the organization
 - Do not make apprentices choose between school and work
 - Do not provide the apprentices with repetitive tasks that do not foster learning opportunities

10. **Life/ Work Balance** (apprentices want to work for an employer that recognizes and allows employees to have a life outside of the workplace)

- Apprentices recognise that sometimes they must work long hours in uncomfortable working conditions or they may have to travel long distances to a work site. These are regarded as aspects of the job, however, what they resent is when employers treat them as an extension of a machine or as part of a project instead of a person with a family and personal interests outside those of the company.
- **Retention Strategies:**
 - Allow apprentices' time to attend to their personal life needs
 - Better plan the workday so that time is not wasted
 - Provide benefits such as health and dental
 - Start pension plans to encourage apprentices to stay with your company
 - Plan social events that include apprentice's families
 - Do not treat employees as chattels
 - Do not set unrealistic, irregular, unsteady, or elongated hours of work

General Recommendations for Employers:

- Take the time to hire the right person for the right job. Hire someone that is the proper "fit" for the position
- Manage apprentices in a respectful and reasonable manner
- Address the needs and wants of apprentices before they "start heading for the door"
- Establish adequate communication systems and feedback loops
- Allow apprentices to "work with you" not just "for you." Harness their desire to take responsibility for their work and increase their knowledge of their trade. Encourage quality work in a positive working environment

Apprentice Retention in the Skilled Trades – A Special Labour Force Study Examining Key Apprentice Retention Factors – Report Summary, Sir Wilfrid Laurier Consulting Team for the Industry-Education Council of Hamilton, July 2001

http://skilledtrades.ca/html/info_seeker/st_info_seeker_recruitmen.shtml

- Summary of above report
 - Includes an employee retention checklist
-

Community Partnership: Connecting Business & Community - Partners 2003 Symposium: Linking Education, Learning and Innovation (Breakout Session Skilled Trades; Good Careers, Great Futures). Industry-Education Council of Hamilton and Dofasco Inc.

http://www.conferenceboard.ca/education/symposium/2003/presentations/skilled_trades.pdf

- Offers long term solutions skilled trades shortages in the City of Hamilton through a 30-member Skilled Trades Community Advisory Committee
- Uses three Working Committees – Employers, Educators, and Training
- Partners & Stakeholders include:
 - Human Resources Development Canada, Yves Landry Foundation, Suncor Energy Foundation, City of Hamilton, Dofasco, Fluid Media Inc., Ontario Youth Apprenticeship Program, Ministry of Training Colleges & Universities, Mohawk College, Collision Industry Auto Group, Hamilton District Auto Body Repair Association, Ontario Learning Partnership Group, Liaison College, YMCA, Industry Education Councils, Liuna Station, Local Unions
- Challenges – Awareness, Perception, Access to Apprenticeship, Government Support, Employer Incentives, In-School Promotion
 - Recruitment - The war for talent is underway and there is a growing shortage of top talent due to declining demographics, entrepreneurial options, and alternative career choices
 - Held a two day Skilled Trades Summit in March 2000
 - Created a Community Skilled Trades Action Plan
- Presents a career/ education co-op model for Dofasco - using school partnerships, information packages, videos, website development, job fairs, career presentations, advisory committees, work experience
 - Grade 7 & 8 (1,000 Elementary Schools)
 - Encourage contribution of math, sciences, computers
 - Presentations, exposure to world of work
 - Generate knowledge & skills requirements and awareness of technical/ trade work
 - Training facility hours
 - Grade 9 & 10 (400 High Schools)
 - Provide materials and educate guidance counsellors
 - Identify selected post secondary programs that are required at Dofasco
 - Encourage focus on math's and sciences. Show the link from theory to practice
 - Show what courses are required for what jobs
 - Training facility & plant tours
 - Awareness of opportunities in technical trades
 - Grade 11 & 12 (400 High Schools)
 - Co-op placements
 - Job fairs
 - Summer employment
 - Post Secondary Year 1-3
 - Job vacancy posting –
 - Internships
 - On campus recruitment
 - Co-op placements
- Partnering with Educators and the community
 - Industry-Education Council of Hamilton
 - Bring your Kids to Work
 - Passport to Prosperity
 - Co-op Education – High Schools
 - Career Days

- Literacy – Essential Skills
- Dofasco Teachers Symposium
- Mentoring program in High Schools
- Junior Achievement
- College Advisory Committees
- University Advisory Committees
- Skilled Trades; Good Careers, Great Futures
- Coop Apprenticeship Program
- Ontario Society for Training and Development
- Conference Board of Canada
- Canadian Apprenticeship Forum
- IAPA – Promote Health and Safety for Young People
- Shad Valley
- Earn to Learn
- Way to Go Program
- Grade 8 Science Program

Solutions:

- Awareness & Perception
 - Skilled Trades Awareness Week
 - Employer Recognition Breakfast
 - Roundtable
 - Skilledtrades.ca
- Access to Apprenticeship & Employer Incentives
 - Online matching service
 - Employer incentives
 - Recruitment and retention strategies
- Government Support
 - Provincial partnerships
 - Federal lobbying
- In-school Promotion
 - Increasing community partnerships

Accountability: Measuring Performance

- Quantitative
 - Local statistics from MTCU
 - OYAP numbers
 - Skilledtrades.ca web stats
 - Client Inquiries
- Qualitative
 - Brand recognition
 - Partnerships
 - Best practices

The Intern...You're Fired-Hired! Wendy Alfus-Rothman, The Wenroth Group, March 2004.

http://www.hr.com/hrcom/uploads/articlefiles/The_Intern.pdf

- Employer tips for interviewing interns
- Employer Preparation – before the Interview
 - **Know what you are interviewing for** – use the internship as a test for what you want down the road, know the qualities and type of potential you are looking for
 - **Have a measurable way to judge success** – be clear about deliverables and outcomes you require from you apprentices so you can direct your interviews
 - **Know the tangible people factors that are necessary – the emotionally intelligent factors** – team skills, interpersonal skills, flexibility
 - **Give your intern interesting work, not just all the stuff no-one else wants to do**

- **Provide feedback & supervision from a consistent and knowledgeable source** – make sure your apprentices know who to go to for feedback, counsel, and advice.
- **Make sure you have senior management buy-in**
- The Interview Process
 - Screen candidates for functional skills
 - Ask candidate "why do you want this job (or work in this company)? Take great caution if the opportunity does not make sense or fit into the applicant's area of interest.
 - The rest of the interview should examine behavioural factors that create the difference between a dream or nightmare experience. The factors to focus on include resourcefulness, cooperation, attitude, conscientiousness, willingness to take on new assignments, adaptability, communication skills, quality of work.
- The Interview Questions
 - The best predictor of future performance is past performance. Many interns don't have past performance – at least not a work. But they certainly do have years of experience at school in academics and in sports.
 - **Questions about perseverance**
 - Least favourite subject in school
 - Favourite subject?
 - **Questions to find out if your candidate knows how to handle pressure, stress, and competing priorities**
 - How do you prepare for a big test/ assignment?
 - What do you do before a play-off game in your sport?
 - **Questions about team building skills**
 - Tell me about your role on group projects
 - **Questions about their attitude, flexibility, and interpersonal skills**
 - **Questions about realistic judgement**
 - **Questions about communication/ negotiation skills**
 - **Questions about managing up**
 - **Questions about Conscientiousness**
 - Planning work

Saskatchewan Plumbing & Pipefitting Industry Sector - Needs Analysis and Human Resources Strategy, Engle & Kook Associates Ltd., October 2000.

http://www.sasknetwork.ca/pdfs/lmi/exec_summary/Pipefitters%20Ex.%20Summary.pdf

<http://www.mca-sask.com/files/piperprt.pdf>

- Recommendations for improving HR in Plumbing & Pipefitting (incl. Apprentices) in Saskatchewan
- Study includes a literature review, 100 telephone interviews with employers/ contractors, 100 telephone interviews with apprentices and journeypersons, and personal interviews with industrial and utility sector employers and employees.
- **Recruitment and Retention Issues**
 - When companies were asked how difficult it is to recruit suitable employees, the mean rating was 3.9 on a 5 point scale, indicating there are significant difficulties in recruiting.
 - The primary reason for the difficulty is due to shortages of skilled and qualified people, rated at 4.4 on a 5 point scale.
 - Over half of organizations surveyed indicated that more than one person left in their organization in the last year. – not a problem, this was mostly employer initiated. Employees were generally either laid off due to shortages of work or because they were unsuitable. These findings suggest that improvements in entry and selection methodologies might contribute to reductions in turnover due to the hiring of employees that are not well matched to job demands.
 - Performance reviews prior to indenturing are in use by 60% of companies
 - 72% of employees – required workers to complete a probationary period
 - However, apprentices surveyed were much more likely to say they had not completed a probationary period than were the journeymen (40% and 16% respectively).
- **Recommendations – Entry Strategies**
 - Examine the feasibility of job-site development programs
 - Develop a high school Communication and Recruitment Strategy
 - Develop a promotional strategy to young people, parents, and educators
 - Utilize the Apprenticeship Guidelines booklet
 - Develop a resource guideline for those speaking or appearing on behalf of the industry
 - Consider expanding Apprenticeship and Trades curriculum to all Saskatchewan school
 - Contact Saskatchewan Education to identify curriculum opportunities for education about trades.

**A New Model for Industry Training in British Columbia, Kelowna Consultations, January 29, 2003.
Okanagan University College.**

<http://www.ouc.bc.ca/trades/news/consult.pdf>

- Strategies to encourage employers to hire apprentices, make trades more attractive to high school graduates and non-traditional learners, and enhance learner and apprentice retention, ensure learner recruitment is synchronized with job availability
- **What does the Ministry propose to do to encourage employers to hire apprentices?**
 - There is a concern that employers appear to be mainly interested in hiring trained and certified people, rather than apprentices. Barriers perceived by the industry are: training costs, lack of contractual commitments, and the “screw-up factors” associated with having trainees. However, collective agreements that hire from seniority lists may also be part of the problem.
 - Suggestions: Reinstatement of wage subsidy programs for apprentices, more tax incentives for companies to hire apprentices, industry associations to pursue hiring and training initiatives.
- **How can the trades be made more attractive to high school graduates?**
 - There was a very strong sense that high school graduates perceive the trades as an unattractive option when they leave school. Advisors perceive and present the trades as a lower road, rather than a different road. Students set educational goals for themselves, rather than career goals. In part this was seen as a lack of information and a failure to engage the students as early as grades 6 or 7. In part it was seen as a lack of prestige in trade occupations. The engagement of high school students is seen as critical to resolving the current and future lack of qualified trades people in B.C., and also in lowering the age of apprentices.
 - Consideration might be given to work experience for high school students, and to bursaries, scholarships, and student loans as a means of attracting students. However, most provincial government efforts in this direction will require coordinated inter-departmental initiatives.
- **How can the trades be made more attractive to non-traditional learners?**
 - Consultees would like to see some consideration of attracting native people into the trades.
 - Directed bursaries and scholarships may have a significant impact for a relatively small investment. It was also suggested that school presentations by women and other non-traditional trades people, together with contractors would introduce appropriate role models to students.
- **What can be done beyond the discussion paper proposals to enhance learner and apprentice retention?**
 - The 50% apprentice dropout rate described in the presentation was questioned by some consultees, but it was generally acknowledged that learner and apprentice retention was a problem.
 - Closer cooperation between colleges and industry was offered as one solution – industry could make available some workers to act as mentors or teaching assistants in courses.
 - Also a suggestion that entry-level training is to weed out unsuitable people. One solution may be to have higher entry-level requirements and/or aptitude testing.
 - Although it was recognized that tuition may cause some students to research the trade properly prior to entering, and to be more serious as a student, the consultees generally agreed that ability to perform, rather than ability to pay should be the prime consideration and/or motivation for learners to attend training.
- **What does the Ministry propose to do to ensure that learner recruitment is synchronized with job availability?**
 - There was some concern that given the time that it takes to train, and the cyclicity of some industries, it is important that learner recruitment and training be in phase with industry demand. It is suggested that there is a need to monitor industry conditions, have realistic forecasting models, and be flexible and adaptable in entry – and higher-level learner recruitment effort. This will require an inter-departmental initiative, and funding.

Prep for the Future: Issues and Challenges Facing the Canadian Collision Repair Industry, Fall 2000.

<http://www.aiacanada.com/downloads/Prep.pdf>

- Discusses Recruitment, Retention, and Career Progression and makes recommendations for the Collision Repair Industry
- The study included interviews with 70 key industry stakeholders, telephone surveys of 1,000 employers, mail survey to 4,000 employees, 35 focus groups, site visits with individual collision repair facilities, and a literature review

- Employees participating in the survey were asked about the length of time they had worked in the industry. The overall average, for all employees, was 18 years.
 - While people appear to remain within the industry for relatively long periods of time, there is considerably mobility or transience (from shop to shop) within the workforce. 50% of the workforce has been with their existing employer for less than 5 years.
 - Those with less than 5 years time with their current employer were asked key reasons for leaving their previous employer – most prevalent factors were wage levels, limited opportunities for advancement and an inability to utilize a full range of knowledge and skills.
 - Employees were asked to rank their level of satisfaction with employment in the industry. Of particular note are the levels of dissatisfaction with wages, opportunities for advancement, and health and benefit levels.
 - Employees were asked to indicate their career plans and intentions within a five-year window -- Only 51% of the existing workforce intend to remain as employees within the industry for the next 5 years. (23% retired or working in another industry, 26% pursuing other career opportunities).
 - Need to look at issues of wages levels, access to benefits, opportunities for career advancement, high cost of tools, need for continuous learning.
 - **Recommendations:**
 - Improve linkages with high schools and colleges to facilitate better understanding and communication between industry and educators
 - Identify and apply, where appropriate, best practice approaches to recruiting in other industries.
 - Work to improve understanding of potential entrants' perceptions regarding the collision repair industry, and track progress in improving these perceptions.
 - Develop and distribute career information and recruitment products targeting potential entrants.
 - Develop and assessment tool to help potential entrants determine if they have the right skills and aptitude to work in the industry.
 - Encourage the development and/ or adoption of better human resource and business management skills on the part of shop owners/ managers.
 - Find ways to improve compensation structures and access to benefits for industry employees.
-

Bridging the Gaps: Issues and Challenges Facing the Automotive Repair and Service Industry, June 1999

http://www.cars-council.ca/PDFs/cars_e.pdf

- Study included over 100 interviews with key industry stakeholders, 17 focus groups of employers, employees, apprentices, potential entrants and their parents, mail survey to employees – sent to over 4,000 people, interviews with Directors of Apprenticeship and members of Advisory committees
 - **Industry Image**
 - Tool Costs – Technicians and apprentices working in the industry are required to purchase tools – they are very expensive. Starter tool set for apprentices will cost between \$3,000 and \$4,000. Over 75% of respondents indicated that they have already invested in excess of \$10,000 in personal tools. Over 30% indicated investments of in excess of \$30,000.
 - **Need to Attract New Entrants (Youth) to the Industry**
 - *Recommendation 1:* The industry needs to identify the best media and method for distribution of information on best human resources practices to the industry at large. The need for “soft skills” including recruitment of employees, training needs and retention practices should be included as part of this information package.
 - *Recommendation 2:* To increase awareness of occupations and opportunities available within the industry, a “kit” of occupational profiles should be developed. These kits should include information regarding a full range of technical and non-technical occupations in the industry and should demonstrate the career paths and opportunities available. A strategic approach for the dissemination of this information will also need to be identified.
 - *Recommendation 3:* Automotive career information needs to be utilized in the primary and secondary school systems to promote the image of the industry and to encourage more young person to pursue careers in the industry.
-

Skilled Trades Shortage Study – A Study of the North-Central Region, College of New Caledonia, May 2003

<http://www.cnc.bc.ca/ce/LabourMarket/pdf/Study.pdf> (full study)

http://www.cnc.bc.ca/ce/LabourMarket/pdf/Recruitment_and_Retention.pdf (recruitment and retention chapter)

- Recruitment and retention issues in the region as identified by students, educators, trades workers and their employers. Region-specific information is supplemented with relevant statistics and data from other sources. Recommendations made.
- Study included focus groups with 290 people, Surveys with 98 employers
- Results of Employer Surveys for the Construction Sector
 - 33 companies employing 550 workers (274 trades workers) responded to the survey. 88% journeypersons.
 - 70% said they had no trades skills needs at the moment
 - Types of workers they noted currently needing include: refrigeration mechanics (3), steel fabricators, ironworkers, plumbers (2), gasfitters (3), sheet metal welder (3), electrical (2), carpenters (5), cement mason (2), etc.
 - 69% anticipated skilled trades needs in five years
 - 64% of employers reported plans to hire some workers in the coming year. They planned to hire a total of 216 trades workers in the next year (163 J/P and 53 apprentices).
- Recruitment and retention of skilled workers, along with the adequacy of trades training, are central to the key themes around the anticipated skilled trades shortages. 75 high school students completed questionnaires, which identified their career plans and awareness of trades careers. Focus groups were held with guidance counselors, students representing maintenance trades, service trades, and construction trades, apprenticeship. Trades workers (union and non-union) and trades employers were interviewed about their recruitment and retention issues. Key points:
 - **Youth**
 - *Knowledge and awareness of trades careers:* Majority of high school students surveyed in grade 10 and 11 indicated that they did not know enough about trades careers to be able to make an informed decision about choosing a career in the skilled trades. According to a 1998 BC Ministry of Education survey, 81% of senior high school students planned to get a university or college diploma. Less than 4% wanted to become apprentices. This is consistent with students at college, many of whom said they chose to pursue trades training because of prior work experience or a parent/ other adult who worked in the trades, as opposed to trades career preparation counseling in high school. There is a sense among employers, trades workers, and trades students that high schools have a 'university culture' – students are encouraged to pursue university. Less academically inclined students are steered into trades careers. This is a concern b/c trades employers state that workplace demands on skilled trades people (problem solving, math, etc.) is increasing.
 - *Education Plans:* 70% of high school students interviewed expect to pursue university (or combination university/ college). Yet, 60% of the future job openings in BC (to 2008) are expected to open for individuals with intermediate, technical, or trades education³.
 - *Influences:* Aside from friends and peers, adult mentors dominate their career and education-choice decisions (i.e. parents, teachers, counselors, Aboriginal education worker, other adults). A Nationwide *Skills Canada* study stated 76% of the students surveyed indicated the greatest influence on their career choices were their parents.⁴ Student respondents indicated they were least influenced by written material in their career decision-making and by the Internet.
 - *Guidance Counselors:* They indicated they need more up-to-date information about trades career options and labour market information.
 - **Trade Students - Recruitment and Retention Issues**
 - *Lack of awareness about trades careers; Lack of labour market information.* Suggested having trades people talk about their trade to students as early as high school, make information available to the community about what each trade involves, its physical demands, the trades labour market trends, and current trades job postings.
 - *Lack of apprenticeship opportunities in the region.* Students indicated difficulties finding industry sponsors for apprenticeships.
 - *Elevate the status of the trades (image in community)*
 - **Women in the Trades**
 - Despite the wide recognition of low female apprenticeship enrolment problem in Canada – the proportion of women has not increased. WITTNN and the CAF stated women need female role models and face a lack of apprenticeship

³ ITAC, March 2001. *Ensuring a Skilled Workforce for British Columbia*. Retrieved on January 4, 2003 from www.learnandearn.bc.ca/whatsnew/ITAC_Report.pdf

⁴ Skills Canada – CD Rom, *Skills Work! Marketing Skilled Careers*. Skills Canada

opportunities. Female workers in this study were consistent with these comments – they added another barrier is men-only attitudes regarding trades workers.

- **Aboriginal Representatives**

- Aboriginal representatives in the north-central region listed the following barriers to successful transition into trade careers
 - Funding, racism, lack of skills/confidence, lack of apprenticeship opportunities for Aboriginals in First Nation Communities, lack of awareness of trades careers and of community organizations and programs that provide trades transition services, lack of support when leaving community and family, lack of local training, attitude and health
- Adequate support (financial, quality of education, health, skills, emotional/ confidence) is key to bridging this under-utilized Aboriginal labour pool successfully into careers in the skilled trades in the north-central region.
- Examples of programs/ opportunities/ initiatives for Aboriginals in north-central region that focus on trades careers: Aboriginal Apprenticeship and Industry Trades Initiative, Metis Provincial Council, and Changing Gears.

- **Immigration**

- Ottawa identified 55% of the new immigration that arrived in 2001 as skilled workers.
- A study completed by Marius Curtain, which includes a discussion of immigration policy and patterns in Canada, and a survey of 1,409 clients, of which 262 were immigrants, in the Prince George area over a 6-year period noted the following barriers:⁵
 - Non-recognition/ Non-acceptance of qualification of recent immigrants, barriers to employment because of a lack of labour market information, lack of Canadian certification, poor language skills, lack of computer training, and education not begin recognized, lack of adequate local public transit.

- **Trades Employers and Trades Workers**

- Barriers to, recruiting and retaining skilled trades workers:
- Risk of apprentices being 'poached' by other employers when they become certified
- Liability and safety issues may deter some employers from creating workplace experience opportunities for youth and others
- Cost and inconvenience of training apprentices
- Smaller companies look for at least 3rd year apprentices as they can't absorb the on-site training needs of less experienced apprentices
- Unwillingness by some employers to take on apprentices as recruiting journeypersons from elsewhere is perceived as being a more efficient means to acquire skilled workers
- Collective Agreements limit employers' ability to find a suitable candidate. Age and aptitude were cited as the two major concerns to employers.
- Difficult economic times in the region – sporadic work opportunities for smaller companies, which impacts the ability to indenture apprentices.
- Recruit the right people into the trades – trades are increasingly requiring higher skills and youth are not recruited into the trades because they are high achievers, rather because they are under-achievers.

Components of a Successful Recruitment Campaign

- A *Skills Canada* study found that recruitment campaigns had the following components:
 - Sustained, Integrated, Provided consistent message, Had a branded look and feel, Used appealing creative, Had marketing coordinators driving the program at the grassroots level⁶

Retention

- Trades people interviewed for this project in the north-central region of BC – no issues with retention
- Employers identified these issues around recruiting/ retaining quality trades people:
 - Seasonal/ Cyclical Employers – difficult to retain quality workers. Construction workers often recruited to the mills or wherever else they may be offered full time work
 - Difficulty do to availability of qualified journeypersons
 - Difficulty do to rural setting

Recommendations:

1. ***Improve Apprenticeship Placement and Work Experience Opportunities – reduce employers' barriers to sponsoring apprentices***

⁵ Curteanu, Marius. Immigrant Barriers to Labour Market Integration in Prince George. Unpublished paper

⁶ Skills Canada – CD Rom, Skills Work! Barriers and Motivating Factors that Influence Career Choices, Skills Canada.

- *Current Initiatives:* Career Preparation/ placement program (CTC, SSA, Coop), Career Exploration programs, Individual companies' strategies, PGJAETA's three-tier program intends to take an Aboriginal student from the start of his or her training through to an apprenticeship
- *Gap Analysis:*
 - The region has few training programs that help students secure apprenticeship opportunities.
 - Few companies identified that they are seeking innovative solutions with educations and labour to recruit, train, and retain a local trades labour pool.
 - A screening process that ensure people with the right aptitudes make it into trades training.
- *Best Practices:*
 - Career Preparation programs, Trades Coop programs (CAT), SkilledTrades.ca
 - The Industry Education Council of Hamilton (IEC) developed a listing of employer incentives available to trades employers to help reduce barriers to sponsoring apprentices. IEC identified 6 key industry and education identified needs around the skilled trades = need to raise awareness, to increase apprenticeship opportunities, to improve work opportunities, reduce barriers for employers to take on apprentices, and to change perceptions around the trades. The solutions included a Trades Resources Centre, a website, a database of employer incentives, and curriculum support resources. The website offers key information for employers, educators, job-seekers, and info-seekers. www.skilledtrades.ca
- *Potential Action Items:* Develop a trades training and recruitment-readiness system in the north-central region by creating a strategy to facilitate Aboriginal, women, immigrants, and youth to enter the trades. Focus on a structure to meet skilled trades shortages needs when they arise. This might entail:
 - Create Apprenticeship opportunities for/ partner with Aboriginal training initiatives for aboriginals
 - Develop a co-op program for ELTT students or an industry sponsorship program
 - Expand the Career Technical Centre (CTC) program and the Secondary School Apprenticeship (SSA) Program to include industry sponsorship
 - Build partnerships with industry, labour, education, and government to create apprenticeship opportunities for CTC, ELTT and SSA students
 - Journeypersons identified one solution was for employers to indenture pre-apprenticeship students without guaranteeing employment after completion of apprenticeship training
 - Consider a project partnership between trades employers, willing to sponsor more apprentices than they need and the government, willing and interested in running a pilot to test an industry training-incentive program
 - Explore business owner hiring incentives such as the Targeted Wage Subsidy (or other HRDC programs) , modified for the businesses that are interested and able to provide on-the-job apprenticeship training, but who cannot guarantee full time work once workers are certified
 - Consider 'return of service' contracts with employees to reduce loss of investment in apprentice, where 'poaching' has been a consistent problem
 - Consider a joint agreement among community employers to train more apprentices and to rely less on recruiting skilled workers from other employers from within their own community (and other employers in the north)

2. **Improve Funding Opportunities and Access to Funding**

- *Current Initiatives:* Trades Scholarships are available to apprentices through sector organizations, such as the Northern BC Construction Association.
- *Gap Analysis:*
 - Students lack a central location at which they can easily access funding sources, i.e. a website linking students to funding sources being offered by educational institutions, sector councils, and community organizations.
 - Career planners – with knowledge of trades information (funding, careers, education) to facilitate students in their quest for resources.
- *Best Practices:*
 - IEC of Hamilton program "Skilled Trades: Good Careers, Great Future" – www.skilledtrades.ca
 - CTS Scholarships – High School Students – Merit Contractors Association⁷

⁷ Canadian Construction Association. *Construction Industry Promotional Efforts Best Practices Guide*. Retrieved on March 12, 2003 from <http://www.cca-acc.com/bpguide/ccabpguide.pdf>

- *Potential Action Items:* Improves access to funding (website researched links to sources), maintain current funding sources, provide more scholarships and bursaries regionally.

3. **Improve Recruitment and Retention of Aboriginal Students**

- *Current Initiatives:*
 - PGNAETA is developing a trades training program that involves training and organizing industry sponsorship for a prospective apprentices
 - Skills Canada BC has in the past run the Aboriginal Initiative program to involve Aboriginal youth in exploring the skilled trades as a career choice.
 - The First Nations Education Support Services operated by the Tribal Council facilitates Aboriginal students to succeed in their studies at CNC
 - Community Education at CNC's Prince George campus is researching the feasibility of offering a trades training preparation program. The First Nations Education Support Services is working cooperatively with Community Education and CNC Administration to offer math in preparation to trades training to First Nations students.
 - Aboriginal career exploration programs
 - Technology career fairs for Aboriginal women
 - Fresh Start at BCIT
- *Potential Action Items:*
 - Secure positions in the workplace for Aboriginal apprentices
 - Coordinate efforts to build awareness about the trades, targeted specifically at Aboriginal students
 - Continue building and strengthening 'trades bridging' programs for Aboriginals
 - Build an Aboriginal mentorship program between prospective students and Aboriginal journeypersons

4. **Improve Recruitment into Trades Training and Trades Careers**

- *Current Initiatives:* Employment placement agencies throughout the region, CAF, Trade Referral and Assessment, Direct Employment Strategy (TRADES) funded by HRDC and sponsored by UFCW Local 247 Training Centre, Discover to Apprenticeship, Girls Exploring Trades and Technology (GETT) Camps, Living and Working in Prince George, Skills BC Trades Competition
- *Gap Analysis:*
 - Regional trades recruitment program; a central location (real or virtual) for information on events in the region about trades (Career Fairs etc), lists of willing trades people who will make presentations to high school students; information available in the community (versus college calendars) about the trades like, what it takes to work in a trade.
 - Mentors
 - Programs that inform and/or involve parents, teachers, and counsellors
 - Lack of labour market information around the trades
 - Identified gap at CNC Employment Centre – Labour Market information such as who hires, who hires regionally, what kind of job can I get with this training?
- *Best Practices:*
 - Skilledtrades.ca – The Industry Education Council (IEC) of Hamilton
 - National Canadian Association of Skilled Trades www.promotingskilledtrades.com
 - Skilled Trades Competition – Skills Canada (BC) www.skillscanada.bc.ca
 - CNC – Career Day
 - Young Tradesperson for a Day – Regina Construction Association
 - Learning About Trades and Technology Education – Merit Contractors Association
 - Construction Skills and Safety Course – Merit Contractors Association
- *Potential Action Items:*
 - Develop a website with the following components
 - Local job postings, Labour market information
 - Links to other job postings, job banks provincially, nationally
 - Basic trades information i.e. A day in the life of...

- Advanced trades information i.e. Areas of potential specialization with a welding ticket
- A place for employers to view resumes (secure)
- Develop trades employment trends for the region for trades educators
- Links to trades shortage info
- Links to other relevant websites, such as www.learnandearn.bc.ca
- Links 'ITAC' information
- Notice Board for regional trades events i.e. career fairs, best practices sharing
- List of employer/journey person mentors to schools/students for job shadows/classroom presentations
- Continue and expand on current programs designed to introduce high school students to the trades working environment
- Develop trades promotion campaigns
- Potential recruitment options:
 - Classroom and shop class demonstrations by trades people, including general information about what it is like to pursue a career in the trades
 - Have CTC students visit high school classrooms to promote trades/program
 - Joint 'Trades Tour' by CNC, CTC, SSA, interested trades employers and trades workers, involving parents and guidance counsellors
 - Newsletter between guidance counsellors to share information
 - A regional website devoted to trades information and employment opportunities for educators, employers, interested individuals to access
 - Provide teachers, guidance counsellors, aboriginal education workers with an opportunity to learn about trades first hand. Give education professionals credit for this experience
 - Consider expanding the CTC program (also SSA)

Skills Solutions in Action, BC Government.

<http://www.labour.gov.bc.ca/skills/hr-skills-solutions.pdf>

- The Roofing Contractors Association of B.C. and SUCCESS (provides services to immigrants) has developed a program to fast-track immigrants into roofing apprenticeships. The five-month preparatory program is equivalent to the first year of an apprenticeship. After completion, apprentices are referred to professional roofing contractors to begin the second year of their apprenticeship.

Recruitment and Retention – Generic

Saskatoon Labour Market Committee – Saskatoon Work Force and Employer Needs Study, March 2004.

<http://www.saskatoonwork.com/employersurvey/SLMCEmployerNeedsStudy-FinalReportApril302004.pdf>

- Study included a survey of 523 (telephone) and 227 (on-line) of employers in all industries, 22 one-on-one interviews with employers, focus groups
 - 18 of the telephone/ online surveys were from the construction industry – they employ a total of 680 employees (198 full-time, 254 part-time, and 228 contract/ casual employees)

Survey Results

- 51.6% of respondents reported they “do not find it difficult to attract employees in certain occupations”
 - Respondents in the Construction Industry *reported having difficulties* attracting employees into certain occupations (72.2%)
 - The Construction Industry reported the *greatest challenge* (61.1%) in attracting employees to Saskatoon compared to other industries
- Employers from all industries reported needing to fill 1,945 positions in the next 12 months

Reasons for Recruitment Challenges - % of businesses that reported difficulties in attracting employees:

- Low wages/ can't compete (33.4%)
 - Shortage of experienced workers (31.4%)
 - Shortage of skilled workers (28.2%)
 - Shortage of available workers (15.9%)
 - Higher turnover in the industry (7.2%)
 - Unappealing working conditions (6.9%)
 - Out-migration (6.1%)
 - Young people aren't dedicated (5.5%)
 - Lack of training facilities/ programs (5.2%)
 - Difficulty attracting to Saskatoon (3.2%)
 - Seasonal Work (2.3%)
 - Unsure/ Don't Know (2.0%)
-
- 60% of businesses that reported difficulties in attracting employees (or 27.6% of all respondents say it is because of a shortage of skilled or experienced workers

Recruitment methods - % responding very effective or effective

- Word of mouth (54.3%)
 - Professional Journals (29.4%)
 - Trade Unions (26.4%)
 - Job Fairs (9.6%)
 - Radio (7.9%)
 - Newspapers (4.8%)
 - Television (3.8%)
 - Resume Drop Off (2.1%)
 - Recruitment Consultants (1.2%)
 - Internet (1.1%)
 - Employment Agencies (0.4%)
-
- For the construction industry – respondents ranked *Word of Mouth* the most effective, followed by *Trade Unions*, and *Professional Journals*.

Turnover

- A total of 5,241 (5,056 full-time and 108 part-time) employees have left responding organizations in the past 12 months
 - That means 46.4% of respondents have had at least one full-time employee leave the organization in the past 12 months
 - 29.3% of respondents have lost between 1 and 5 full-time employees in the past 12 months, 12.4% have lost between 6 and 25, and 4.1% have lost over 25 employees.

- From this survey – the turnover rate for Construction Industry is 17.2%
- 86.5% of all respondents (all industries) are concerned about their turnover rate

Most common reasons employees give when they leave your organization? All Responders - Multiple Responses Allowed

- Better opportunities/ better job/ full-time work (52.0%)
- Hours are too long (22.9%)
- Lack of training (10.3%)
- Physical demands of the job (9.5%)
- Personality conflicts (8.0%)
- Retirement (4.3%)
- Personal Reasons (2.5%)
- Going back to school (1.7%)
- To open their own business (1.7%)
- Job is too stressful (1.6%)
- Having to work weekends (0.8%)
- Insufficient wages (0.3%)
- Having to work shifts (0.3%)
- Unsure (1.9%)

Most common reasons employees give when they leave your organization? Construction Industry - Multiple Responses Allowed

- Better opportunities/ better job/ full-time work (55.6%)
- Hours are too long (33.3%)
- Lack of training (11.1%)

Emigration - Compared to prior years, has your firm experienced an increase or decrease in employee emigration (leaving province/ country)?

- All Industries – 56.9% no change, 12.9% increase, 6.1% decrease
- Construction – 88.9% no change, 5.6% increase

Successful Retention Strategies:

- Competitive wages& salaries (All Industries 24.9%, Construction 22.2%)
- Competitive commissions and bonuses (All Industries 19.1%, Construction 16.7%)
- Positive work environment/ treat staff fairly (All Industries 18.3%, Construction 11.1%)
- Nothing different or unusual (All Industries 16.1%, Construction 16.7%)
- Competitive benefits (All Industries 11.3%, Construction 5.6%)
- Expanded holidays/ flexible hours (All Industries 3.5%, Construction 11.1%)
- Unsure/ Don't know (All Industries 6.8%, 16.7%)

Information Requirements

- Does your company require information or support services for training employees?
 - All Industries – Yes 20%, No 80%
 - Construction – Yes 44.4%, No 55.6%
- Does your company require information or support services that might help with recruitment, hiring, and retention of employees?
 - All Industries – Yes 18.4%, No 81.6%
 - Construction – Yes 22.2%, No 77.8%

Focus Group and Interview Results

Recruitment Challenges

- *Lack of Skilled and/ or experienced workers* – The labour pool for specific types of skilled workers is very small in Saskatchewan. Demand is high for these positions and there aren't enough people living or willing to live in Saskatoon. In Construction, there simply aren't enough young people going into highly skilled trades or gaining the required training.
- *Lack of Work Ethic* – A common sentiment shared by participants is that young people entering the work force lack a strong work ethic.
- *Lack of Awareness & Perception* – Participants in Construction and Manufacturing industries think that a major issue plaguing the trade industries is the overall lack of awareness of trade careers. Participants feel that there is a relatively negative stigma associated with trade jobs.

- *Lack of Adequate Training* – Several participants where technical training is required think that there is a lack of adequate training available. In the trade industries, many of the participants feel that the apprenticeship programs at the training institutes in Saskatchewan are inadequate. Students coming out of these training programs still require several years of experience and hands-on training before they can yield a return. Others think that the standards of education and training are set too low.
- *Economic Volatility* – Employers in Manufacturing, Construction, and Tourism depend on current economic conditions. In many sectors there is not steady or sustainable growth to justify employing a full staff year-round. “Its tough to keep employees when you can’t guarantee them full-time or long-term employment”.
- *Competition with other Employers and other Cities* - Many employers find it difficult to recruit skilled/ experienced employees because they are competing with employers who are able to pay higher wages or better hours. Saskatoon employers have to compete with other cities on variables such as lower taxes, climate, desired lifestyle, and negative perception of Saskatoon.

Recruitment Methods & Practices used by participants

- Type of recruitment method varies between industry, size of business, and type of position required. However, word of mouth and referral recruitment is the preferred method for the majority. It is considered most effective and least time consuming.

Recruitment Strategies

- *Offer Attractive and Competitive Compensation* – Signing bonuses, competitive wages and benefits, commissions, stock options, profit sharing, vehicle allowances, flex-time
- *Create a Potential Employee Database* – Accumulation of resumes that have been dropped off/ submitted through company web site. Network and develop relationships with prospective employees. Utilize professional and community organizations to acquire names of potential prospects.
- *Establish Partnerships with Training & Educational Institutes*
- *Hire from within*
- *Market the Position* - Ensure the job description is clear and updated. Market the position to candidates – emphasize benefits. Identify most important responsibilities and qualifications. Include a URL in the posting for a full job description and company information.
- *Provide Information on Saskatoon and Saskatchewan* - When recruiting employees from outside Saskatoon or Saskatchewan, employers must not only ‘sell’ their organization, but Saskatoon as well. The material should include information on housing costs, taxes, community and social life, the environment etc.
- *Provide Relocation Assistance* -
- *Track Recruitment Success* –
- *Retention as a Recruiting Strategy*

Employee Turnover

- Participants in Construction/ Manufacturing say that some positions have high levels of turnover

Retention Issues

- *Emigration* – Employees leave Saskatoon for higher paying jobs, full-time work, better opportunities, lower taxes, or a different lifestyle in other cities. Often employees will acquire their training or gain some work experience in Saskatoon, but will eventually move to other cities for employment.
- *Insufficient Pay* –
- *Limited Opportunities for Growth and Advancement* –
- *Job Stress and Burn Out*
- *Aging Work Force* – The “Baby Boom” demographic bubble means that many current workers will leave the labour market in the next five to ten years. The rate of new entrants to the skilled labour market is not sufficient to replace the attrition.

Retention Strategies used by participants

- Participants use a variety of employee retention strategies – the effectiveness of each strategy varies between organization, position, and employee.
- *Compensation* - Even though many participants are not able to employ this practice, all participants think that offering competitive wages, salaries, benefits and/or bonuses can be an effective tool in retaining employees. However, most believe that competitive compensation must be offered in combination with other practices in order for it to be truly effective.
- *Flexible Work Arrangements* - Providing flexible working hours is another effective retention strategy commonly employed by many participants. This is particularly effective with younger employees or single parents. Young people are motivated differently than their older counterparts. They want adjustments or flexibility in work schedules to accommodate their personal and social lives. Similarly, single parents often require time off to deal with family issues. This strategy can be effective in organizations with a small number of employees, but some participants of larger organizations indicate that flextime is too difficult to manage.

- *Positive Working Environment* - All of the participants think that providing a positive working environment is an essential ingredient in keeping employees. Similar to the rationale behind flextime, many younger employees want a fun and friendly work place.
- *Right Fit* - Some participants also emphasize the importance of hiring employees that fit with the 'corporate culture' of the organization. These participants think that employees are happier when they are working with people of similar age or personalities.
- *Positive Feedback/ Recognition*
- *Training in other jobs* - In an attempt to keep valuable employees working during slow periods, some organizations train employees in other areas of the business. This strategy is also employed to keep employees interested.
- *Appropriate Recruitment Process* - Other participants that are recruiting technical and/or skilled positions try to exercise stringent screening processes when hiring new employees. It is very expensive and frustrating to have new employees leave the organization because they did not like or want the job. By attempting to ensure that new recruits have a real interest and ability to do the job before hiring them, some employers mitigate employee turnover. Some employers use a multi-phase interview process, others employ aptitude tests and some allow for organizational tours or a 'ride along' so that prospective employees can gain some insight before accepting the job.
- *Other Practices* - incentive or reward programs, wellness programs, staff surveys, social committees or activities, earned days off or extra vacation time; or profit sharing.

Retention Strategies

- *Hiring Practices*- Choosing the right employee for the job is an important ingredient to retaining that employee. Employers should make every effort to hire an employee that understands what the job involves, has the proper skill set and experience and fits adequately into the organizational culture. Provide realistic verbal and/or visual job previews. Allow prospective employees to see or experience their working environment before hiring. Be honest with candidates during the 'sales' process. Use stringent screening processes, multi-phase interview procedures and aptitude tests to select the right candidate. These practices can help minimize the number of employees that leave because the job is not what they thought it would be. Consider hiring candidates that have ties or roots to Saskatoon or Saskatchewan or candidates that used to live in Saskatchewan and have now decided to return. Employees are much more likely to stay in Saskatoon if they have established a family and community of friends here.
- *Competitive and Equitable Compensation* - Provide compensation that is equal to or higher than the average wages or salaries in the industry. Conduct or acquire annual surveys to determine what average industry wages are and adjust accordingly.
- *Flexible and Competitive Benefits Plan*
- *Flex-Time or Family Friendly Work Place Policies*
- *Lateral Advancement* - Organizations that have a relatively flat management structure or that have little room for promotions often offer employees the option of moving laterally within the organization. This allows employees to grow within the organization, take on new responsibilities and learn new skills. This strategy can also be used to keep valuable employees working during slow periods.
- *Training Opportunities* –
- *Mentoring*
- *Recognition and Reward* - It is important to acknowledge and reward employees for such things as good work, loyalty and productivity. This improves employee morale, encourages motivation and reinforces desired behaviors. Furthermore, employees require feedback in order to continually improve. Recognition and rewards can be informal or formal depending on the organization and its structure⁶. Formal recognition programs should be explicit so that employees are aware of the program and what it exactly involves. These types of reward programs can be designed around actions like timely completion of projects, excellence in customer service, achieving sales goals and other areas pivotal to supporting a thriving business. Informal recognition involves less structured acknowledgement. It can involve sharing positive client feedback with employees, complimenting employees for a job well done, celebrating successes or announcing achievements at staff meetings.
- *Positive Work Environment* - Ensure that employees are working in a positive, friendly and safe work place that is free of harassment, intimidation and health hazards. Create an open-door policy within the work place where employees are free to come to their managers with concerns or issues without fear of disregard or judgment. A positive work environment can also involve social elements to the work place. For example, create a social club that organizes staff functions or social events such as end of busy season parties or pizza on Fridays.
- *Job Satisfaction/ Challenging Work* - Ensure that employees are given work assignments that match their skill sets. Employees will be unhappy or bored if they are continually working at tasks that are not challenging or do not match their competencies. Give employees a variety of assignments or responsibilities and allow them to choose what they want to work on. It is also important to give employees autonomy to make work related decisions on their own. This shows employees that managers believe they are competent and trust their judgment.
- *Employee Surveys* -

Finders & Keepers: Recruitment and Retention Strategies, Alberta Human Resources and Employment, 2003

<http://www.alis.gov.ab.ca/pdf/cshop/FindersKeepers.pdf>

Employee Turnover

Cost of employee turnover include direct (measurable) and indirect (hidden). Direct costs include separation processing, exit interviews, severance pay, accrued vacation, temporary help, overtime for co-workers, writing a job ad, application screening, interviewing, relocation, orientation and training for new employee, etc. Indirect costs include lost productivity of incumbent prior to departure, lost productivity of new hire during transition time, dissatisfied/ lost customers during vacancy or transition etc.

Attraction – What are employees looking for?

- Good pay, job security and benefits are an important part of the package, but they don't top the list. Canadian workers placed a higher value on being treated with respect, doing interesting work, a feeling of accomplishment and good communication among co-workers.⁸
- *Managers Matter* – Manager quality (manner, style, effectiveness) is another key consideration for job seekers.
- *Employer of Choice* – You are an employer of choice if job applicants seek you out, you have a waiting list of interested applicants because your turnover rate is lower than the industry average. According to www.jobquality.ca you offer some or all of the following:
 - Training and development opportunities
 - Safe working environment
 - Health working environment
 - Responsive scheduling
 - Positive employee-supervisor relationships
 - Reasonable job demands
 - Competitive pay and benefits
 - Employee communication and influence
 - Personally rewarding work
 - Job security
 - Thoughtful job design
- Another study by the Gallup Organization involved more than 80,000 managers from more than 400 companies in a multi-year study. The research resulting in identifying 12 criteria of a great workplace:
 - I know what is expected of me at work
 - I have materials and equipment I need to do my work well
 - At work I have the opportunity to do what I do best every day
 - In the last seven days I have received recognition or praise for doing good work
 - My supervisor, or someone at work, seems to care about me as a person
 - There is someone at work who encourages my development
 - At work my opinions seem to count
 - The mission or purpose of my company makes me feel my job is important
 - My associates (fellow employees) are committed to doing high quality work
 - I have a best friend at work (a trusting relationship with a co-worker)
 - In the last six months someone at work has talked to me about my progress
 - This last year I have had opportunities at work to learn and grow

⁸ Graham Lowe, *Job Quality: The Key to Attracting, Retaining and Developing Workers of All Ages*, CPRN and the University of Alberta. Keynote address to IPMA Canada, National Training Conference, Fredericton, N.B., May 16, 2001. Posted at www.cpm.org

Recruitment: Find the Talent you need

- *Positive Planning* – Good recruitment begins with good planning. Know your organization, know your hiring needs, know the work, know the labour market, know your talent sources (aboriginal people, immigrants, older workers, persons with disabilities, visible minorities, youth, women), know your options, measure and evaluate.
- *Practices (Document includes pros, cons, and success factors for each method listed below)*
 - Internal job posting
 - Employee Referrals
 - Print Ads (newspaper, trade journal, magazine)
 - Internet Recruiting (job boards, organization's website, industry/ professional associations)
 - Third Party Recruiters (employment agencies, executive search firms)
 - Contacts through schools
 - International Recruiting

Selection : Making a Good Match

- *Positive Planning* – Selection is the pivot point between recruitment and retention. Using an accurate, current job description is a starting point
 - Consider what are the “must-haves” (non-negotiables – things applicants must already have)?
 - What are the “nice-to-haves”?
 - How will I really know if the applicant has these skills/ traits?
 - What tools will I need to make my decision (e.g. application forms, behavioural interview questions, reference checklist)?
- *Selection Strategies*
 - Application forms
 - Resumes
 - Interviews (consider behavioural and situational interview formats)
 - Verifying the facts
 - Reference Checks
 - Criminal Record Checks – usually only after a conditional offer has been made
- *Communicating with Applicants*
 - Letter of offer should include position, title, description, start date, salary, hours of work, vacation, compensation package, reporting requirements, probationary period.

Retention: Keep Valued Employees

- *Planning*
 - Know why new hires came (or not)
 - Know why people stay and leave your organization
 - Anticipate the turnover triggers
 - Know your options
 - Measure and evaluate
- *Practices*
 - Orientation and Integration – document contains an orientation checklist (pg. 31)
 - Training and Development
 - Development includes: buddy system, feedback, job enrichment, lateral moves, promotion, relocation, cross-training, rotate jobs/ assignments, coaching, mentoring, committee work, special projects, teamwork, resource support, learning plans, career ladders, tuition reimbursement, professional connections, celebrate.
 - Compensation and Benefits
 - Creative ideas include: anniversary cakes with a \$100 coupon for every year worked, barbeques on site, bereavement leave, concierge services, counselling services, discounts on corporate products/ services, eldercare assistance, employee assistance programs, \$50 bonus for cost savings suggestions, financial planning services, flex time, free or subsidized food, free/ subsidized parking, one-hour job swap on Friday afternoons, paid fitness memberships, staff functions, staff lotteries, sabbaticals earned after ten years, time of to volunteer etc.

- Recognition and Rewards
 - Performance Management
 - Work-life Balance
 - Employee Communication and participation
 - Safe, fair and healthy workplaces
 - Manager Training and Accountability
 - Saying Goodbye
-
- Publication includes the following four tools:
 - Calculating Turnover Costs
 - Sample Job Description
 - Tracking Recruitment Results
 - Applicant Rating Guide

Workopolis News and Views - Ontario Encouraging Youth to Enter Construction Trades, Teresa Zevenbergen, January 23, 2002.

http://www.workopolis.com/servlet/Content/resource/20020123/skill_trades?gateway=work

- Recruiting young people is necessary to address shortages
 - Scott Minor, CEO of the OCS – “60% of all new jobs created over the next decade will be in trades and technology”.
 - A number of areas within the industry such as bricklaying, carpentry, general labour, and roofing area already facing immediate shortages, and virtually all trades will be in need of workers over the long-term
 - The OCS, Ontario’s Ministry of Education, and HRDC recently hosted a three-day career exhibition (Future Building 2001) at the Metro Toronto Convention Centre. The principle objective of the event was to inform Ontario youth about the wide range of career opportunities available in the construction industry
 - Individuals from a number of trades were on hand to exhibit their skills to youth from grades 7 to 13

Manage – Turn the Tables on Employee Turnover: Five Keys to Maximum Employee Retention, Laura Michaud, Volume 52, Issue 1, 2000.

<http://www.frogpond.com/articles.cfm?articleid=lmichaud02>

- According to the U.S. Department of Labor, it costs a company one-third of a new hire’s annual salary to replace an employee. Using a modest annual salary of \$35,000, a company can easily spend \$11,500 for each new employee hired. This figure comprises both direct and indirect costs.
- Retention Strategies:
 - Build Strong Relationships with Every Employee
 - Offer Praise Freely
 - Truly Listen to Employee Feedback
 - Keep the Mood Light
 - Continually Strengthen Your Team

About - Top Ten Recruiting Tips, Susan M. Heathfield, 2002.

<http://humanresources.about.com/library/weekly/nosearch/naa062602a.htm?once=true&>

<http://humanresources.about.com/library/weekly/aa062602b.htm>

1. Improve your candidate pool
 - o Develop relationships with university placement officers, recruiters, and executive search firms
 - o Enable current staff members to actively participate in industry professional associations and conferences where they are likely to meet candidates
2. Hire the Sure Thing
 - o Bruce N. Pfau and Ira T. Kay, authors of *The Human Capital Edge*, are convinced that you should hire a person who has done this "exact job, in this exact industry, in this particular business climate, from a company with a very similar culture." They believe that "past behavior is the best predictor of future behavior" and suggest that this is the strategy that will enable you to hire winners.
3. Look First at in-house Candidates
4. Be Known as a Great Employer
5. Involve your Employees in the Hiring Process
6. Pay Better than your Competition
7. Use your Benefits to your Advantage
8. Hire the Smartest Person you Can Find
9. Use your Website for Recruiting
10. Check References

TAB 3
Detailed Financial Plan
Training Centre of
Excellence

- i Own Bldg
- ii Rent Bldg

Saskatchewan Masonry Training Centre Own Building

Draft Final
Sunday, May 01, 2005

Spreadsheet

Pro Forma: Receipts and Disbursements (Cash Flow Basis)

TTF: Training Trust Fund Contribution Income

TDA: Training Delivery Agency - Apprenticeship Training Per Diem Income

Admin-TTF: Administration - Training Trust Fund

Admin-TC: Management and Administration of Training Centre

L&B: Land and Building

Sum1: Summary of Machinery, Equipment and Furnishings

Tools: Power Tools and Hand Tools

M&E: Machinery and Equipment Budget

Comp: Computer Lab and Classroom Estimates

Adm: Administration - Equipment and Furnishings

Upgrade: Skill Upgrade Training

Apprent1: Apprenticeship Training

Apprent2: Apprenticeship (pre-apprenticeship or additional training)

Instr: Part-Time Instructor Requirements

Curr: Curriculum Development Costs

Mar: Marketing and Promotion

Own: Own Contribution Estimates

Con: Consumables

Pro Forma: Receipts and Disbursements (Cash Flow Basis)

With the premise of Own Building												
Receipts												
Gross Contributions to TTF	TTF	\$200,000	\$117,000	\$117,000	\$117,000	\$117,000	\$117,000	\$117,000	\$117,000	\$117,000	\$117,000	\$117,000
TDA Per Diem Revenue	TDA	\$0	\$104,160	\$104,160	\$104,160	\$104,160	\$104,160	\$104,160	\$104,160	\$104,160	\$104,160	\$101,680
Other Grants	Sum 1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Curriculum Development Support	L&B	\$360,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$0
Mortgage/Industry Loan		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
HRDC - LMP Agreement		\$500	\$207	\$290	\$290	\$290	\$290	\$290	\$290	\$290	\$290	\$188
Interest		\$100,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$50,000
Other (i.e. partners)		\$660,500	\$328,927	\$271,450	\$271,450	\$271,450	\$271,450	\$271,450	\$271,450	\$271,450	\$271,450	\$268,868
Total Receipts												
Disbursements												
Management and Administration:												
Administration - TTF	Admin-TTF	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
Management and Administration - Training Centre												
Salaries and Administration	Admin-TC	\$40,950	\$69,149	\$78,370	\$78,370	\$78,370	\$78,370	\$78,370	\$78,370	\$78,370	\$78,370	\$84,396
Occupancy Costs	Admin-TC	n/a	\$6,150	\$24,600	\$24,600	\$24,600	\$24,600	\$24,600	\$24,600	\$24,600	\$24,600	\$26,492
Professional Fees	Admin-TC		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Training Improvement Coordinator	Admin-TC	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Land and Building:												
Mortgage Costs	L&B	\$16,093	\$38,852	\$39,014	\$39,014	\$39,014	\$39,014	\$39,014	\$39,014	\$39,014	\$39,014	\$39,014
Building (from Mortgage or other sources)	L&B	\$360,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$0
Land - one acre	L&B	\$150,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Machinery, Equipment and Furnishings:												
Acquisition Costs:												
Hand and Power Tools	Sum1	\$0	\$8,625	0	0	0	0	0	0	0	0	\$0
Machinery and Equipment	Tools	\$0	\$45,713	\$22,856	\$22,856	\$22,856	\$22,856	\$22,856	\$22,856	\$22,856	\$22,856	\$0
Stone	M&E	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Restoration		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Refractory		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Computers		\$0	\$0	0	0	0	0	0	0	0	0	\$0
Administration	Adm	\$0	\$0	\$27,690	\$27,690	\$27,690	\$27,690	\$27,690	\$27,690	\$27,690	\$27,690	\$0

Pro Forma: Receipts and Disbursements (Cash Flow Basis)

	Year I	Year II	Year III	Year IV	Year V	Year VI
With the premise of Own Buidling						
Annual Maintenance & Warranty Costs for M&E	\$0	\$272	\$253	\$187	\$206	\$0
Training Delivery:						
Tuition Off-set (\$15/week) - no tuition is expected to be charged	\$0	\$0	\$0	\$0	\$0	\$0
Locally Delivered Training, incl. Instructors Costs	\$0	\$0	\$0	\$0	\$0	\$0
Skill Upgrade Delivery, incl. Instructors Costs	\$0	\$0	\$0	\$5,157	\$5,157	\$8,426
Apprenticeship Delivery	\$0	\$39,176	\$54,055	\$59,364	\$56,791	\$56,825
Apprenticeship Enrichment Training Delivery, incl. Instructor Costs	\$0	\$1,227	\$1,652	\$1,770	\$1,652	\$1,613
Instructors (Apprenticeship) & Head Instructor	\$0	\$12,800	\$12,800	\$12,800	\$12,800	\$12,800
Curriculum Development	\$0	\$8,000	\$8,000	\$16,700	\$0	\$0
Marketing and Promotion	\$0	\$16,000	\$5,250	\$7,500	\$7,500	\$11,500
Total Disbursements	\$577,543	\$295,962	\$284,540	\$295,526	\$282,473	\$251,065
Surplus / Deficit (-) on Year	\$82,957	\$32,965	-\$13,090	-\$16,669	-\$11,098	\$17,802
Cumulative Surplus / Deficit (-) Reserve	\$82,957	\$115,922	\$102,832	\$86,162	\$75,065	\$92,867

TTF: Training Trust Fund Contribution Income

	Year I	Year II	Year III	Year IV	Year V	Year VI
YR 1 - \$150K (\$0.60 per hour contribution) 0.6	\$150,000	\$117,000	\$117,000	\$117,000	\$117,000	\$117,000
Average Hours: 2003 - 2004 Est. Actual Hours: 2004-2005 Projected Hours: 2005/06-2006/11	0 195,000					
235 total bricklayers 150 union 1300 annual hours						

TDA: Training Delivery Agency - Apprenticeship Training Per Diem Income

1. Year one no training, still done in SIAST
2. Year II will displace SIAST and will integrate 45 registered app.
3. Year II will also start new intakes of 12 per year
4. Traditional completion rates are 50%
5. Apprentices generally don't take consecutive levels (not enough hours)

	Year I	Year II	Year III	Year IV	Year V	Year VI
Bricklayers						
No. of Apprentices						
Basic	0	15	15	18	15	15
Intermediate	0	12	15	15	15	12
Advanced	0	12	12	12	12	14
Total	0	39	42	45	42	41
Per Diem Amount	\$2,480	\$2,480	\$2,480	\$2,480	\$2,480	\$2,480
Per Diem Income	\$0	\$96,720	\$104,160	\$111,600	\$104,160	\$101,680
Other						
No. of Apprentices						
Basic	0	0	0	0	0	0
Intermediate	0	0	0	0	0	0
Advanced	0	0	0	0	0	0
Total	0	0	0	0	0	0
Per Diem Amount	\$2,480	\$2,480	\$2,480	\$2,480	\$2,480	\$2,480
Per Diem Income	\$0	\$0	\$0	\$0	\$0	\$0
Total Per Diem Income	\$0	\$96,720	\$104,160	\$111,600	\$104,160	\$101,680
Total Apprentices	0	39	42	45	42	41

78
69
62 0.7949

iii iv v vi
22621 23238 22615 19205
6463.1 6196.8 6461.3 6557.7

	YR 2	Existing/ New Ret	Residua	Sub-tota	Drop Ou	Intake	Potentia Actual	RESIDUAL
	Level 1	15	10	25	3	23	15	8
Level 2	20	20	20	2	2	18	12	6
Level 3	15	15	15	2	2	14	12	2
YR 3								
Level 1	20	8	28	3	25	15	15	10
Level 2	15	6	21	2	19	15	15	4
Level 3	12	2	14	1	12	12	12	0
YR 4								
Level 1	15	10	25	2	22	18	18	4
Level 2	15	4	19	2	17	15	15	2
Level 3	15	0	15	2	14	12	12	2
YR 5								
Level 1	18	4	22	2	20	15	15	5
Level 2	18	2	20	2	18	15	15	3
Level 3	15	2	17	2	15	12	12	3
YR 6								
Level 1	15	5	20	2	18	15	15	3
Level 2	15	3	18	2	16	12	12	4
Level 3	15	3	18	2	16	14	14	2

Apprent1: Apprenticeship Training

Assumptions:

Duration of Apprenticeship Course (days):	40
No. of Students per Course:	15
Average Consumables per Day/per Student	Brick \$20
	Other \$3
	Other \$0
	Weighted Average (Est.) \$23
Average Travel Stipend - Commuting Students	\$180 (\$.3/km x 20 km x 40) - not paying for the first 40 km's
Average Travel Stipend - In Residence Students not EI Eli	\$300
Accommodation Cost (one night-shared)	\$45
Average Accommodation Cost (56 nights/shared)	\$2,520 Preliminary Est
EI Living Away From Home Allowance (Offset Accommm.)	-\$840
Average No. of Accommodated Students per Course	-
Average No. of Commuting Students per Course	-
Per Diem Rate	\$0 (paid to all)
Sundry Costs per Course per week	\$100
Tuition (if charged)	

Cost per Apprenticeship Course

Refreshments	\$100
Consumables	\$13,800
Accommodation Costs	\$0
EI Accommodation Offset	\$0
Travel Stipends - Commuting Students	\$0
Per Diem Costs	\$0
Sundry Costs	\$800
Total Costs per Course	<u>\$14,700</u>
Tuition Off Set	\$0

	Year I	Year II	Year III	Year IV	Year V	Year VI
No of Bricklayer Courses	0	3	4	4	4	3
No of Other Courses	0	0	0	0	0	0
No. of Other Courses	0	0	0	0	0	0
Total No. of Courses	0	3	4	4	4	3

	Inflation Factor			2.5%		
Cost per Course	\$14,700	\$15,068	\$15,444	\$15,830	\$16,226	\$16,632
Cost of Courses	\$0	\$39,176	\$54,055	\$59,364	\$56,791	\$56,825
Tuition Off-set	\$0	\$0	\$0	\$0	\$0	\$0
No. of Apprentices						
Bricklayer	0	15	30	45	42	41
Other	0	0	0	0	0	0
Other	0	0	0	0	0	0
Total	0	15	30	45	42	41

Admin-TTF: Administration - Training Trust Fund

	Year I	Year II	Year III	Year IV	Year V	Year VI
Audit	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00
Legal	\$2,500.00	\$0	\$0	\$0	\$0	\$0
Insurance D&O	\$2,500.00	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500
Administration Fees	\$3,000.00	\$3,000.00	\$3,000.00	\$3,000.00	\$3,000.00	\$3,000.00
Meetings, Travel, Per Diem	\$0.00	\$2,500.00	\$2,500.00	\$2,500.00	\$2,500.00	\$2,500.00
Trade and Skills Fairs						
Misc. Expenses	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00
Total Administration	\$10,000.00	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000

Admin-TC: Management and Administration of Training Centre

Year I Year II Year III Year IV Year V Year VI

	Year I	Year II	Year III	Year IV	Year V	Year VI
Salaries and Administration			Inflation Factor		2.5%	
Training Director/Head Instructor	\$30,000	\$50,000	\$50,000	\$51,250	\$52,531	\$53,845
Admin Support	n/a	\$8,000	\$8,000	\$12,000	\$12,300	\$12,608
Sub-Total	\$30,000	\$58,000	\$58,000	\$63,250	\$64,831	\$66,452
Benefits, Etc	\$7,500	\$7,688	\$14,500	\$14,863	\$15,234	\$15,615
Payroll Taxes	\$450	\$461	\$870	\$892	\$914	\$937
Sub-Total	\$37,950	\$66,149	\$73,370	\$75,204	\$77,084	\$79,011
Administration Expenses	\$3,000	\$3,000	\$5,000	\$5,125	\$5,253	\$5,384
Total:	\$40,950	\$69,149	\$78,370	\$80,329	\$82,337	\$84,396

Share of Training Coordinator Costs

n/a n/a n/a n/a n/a n/a

Occupancy Costs

Total Sq. Ft.	Cost per sq. Ft. / Mo	Monthly Cost	5,000
Utilities	\$0.08	\$400	\$4,800
Cleaning	\$0.05	\$250	\$3,000
Insurance - Building	\$0.05	\$250	\$3,000
Insurance - Liability	\$0.05	\$250	\$3,000
Snow Removal, Landscaping	\$0.01	\$50	\$600
Property Taxes	\$0.10	\$500	\$6,000
Security	\$0.02	\$100	\$1,200
Maintenance - Building (excl equipm)	\$0.05	\$250	\$3,000
Total Occupancy Costs	\$0.41	\$2,050	\$24,600

Professional Fees

Audit and Accounting	included in TTF Administration Expenses	
Legal	included in TTF Administration Expenses	
Allowance for Other	0	\$0
Total Professional Fees	\$0	\$0

Total Management and Administration and Instruction

\$0 \$0 \$102,970 \$105,544 \$108,183 \$110,887

Instr: Part-Time Instructor Requirements and Head Instructor

Head Instructor (part of Exec. Dir. Role)	\$0
Salary	\$0
Benefits (25%)	\$0
Payroll Taxes (6%)	\$0
	<u>\$0</u>

	Year I	Year II	Year III	Year IV	Year V	Year VI
Total No. of 8 Week Apprenticeship Cours	0	3	3	3	3	3
Total Apprenticeship Weeks of Instruction	0	24	24	24	24	24
Shop Instruction:						
Head Instructor - Weeks of Teaching	0	16	16	16	16	16
Part-Time Instructors - Weeks of Teaching	0	8	8	8	8	8
Cost per Week (\$40/hr)		\$1,600	\$1,600	\$1,600	\$1,600	\$1,600
Cost of Part Time Shop Instructors		\$12,800	\$12,800	\$12,800	\$12,800	\$12,800
Computer Instruction						
Est. 1 week per 8 week session		0	0	0	0	0
Cost per Week (\$42/hr) - increased yearly		\$1,600	\$1,600	\$1,600	\$1,600	\$1,600
Cost of Part-Time Computer Instructors		\$0	\$0	\$0	\$0	\$0
Total Cost of Part-Time Instructors		\$12,800	\$12,800	\$12,800	\$12,800	\$12,800
Head Instructor (part of Exec. Dir role)			\$0	\$0	\$0	\$0
Total Instructor Costs		\$12,800	\$12,800	\$12,800	\$12,800	\$12,800

L&B: Land and Building

May-05

Land:	
No. of Acres	1
Cost per Acre (including gst)	\$150,000
Land Cost	\$150,000
Legal Fees	\$500
Other Professional Fees (Environmental, et	\$0
Land Transfer Tax	\$0
Total Land Costs (Equity)	\$150,500

Land Transfer Tax: - Not Applicable		
Transaction Range	Rate	Amount
\$1 to \$55,000	0.0%	\$55,000
\$55,001 to \$250,000	0.0%	\$195,000
>\$250,000	0.0%	\$0
Total Land Transfer Tax		\$0

Building:	
Site Preparation Costs	\$20,000
Est. Sq. Ft	5,000
Cost per Sq. Ft.	\$70.00
Building Construction Costs-basic	\$350,000
Contingency Allowance (5%)	\$17,500
Est. Construction Cost net of GST	\$367,500
GST 7%	\$0
Total Est. Construction Cost	\$367,500
Professional Fees related to Building Construction	
Legal Fees	\$0
Other Professional Fees	\$4,000
Municipal Fees	
Application	\$1,000
Connection Charges	\$0
Inspection Charges	\$2,500
Development Charges	\$0
Property Taxes: One Year	\$5,750
Allowance for Miscellaneous Costs	\$15,000
Total Construction Costs (Mortgage)	\$395,750
	\$400,000 rounded up

Municipal Fees and Charges		
Development Charge: Est. Rate		\$0.00
Est. Sq. Ft.		5,000
Total Est. Development Charges		\$0
Property Tax: Est Rate		\$1.15
Total Est. Property Tax		\$5,750

Total Land and Building Equity Mortgage	Mortgage Principal Amortization Rate Compound Monthly Payment Annual	Mortgage Draw Down				Cumulative %	Amount	Cumulative \$	Monthly Payment
		Percent	Year I	Year II	Year III				
\$550,500	27.3%	0%	2006 Jan	0%	0%	\$0	\$0	\$0	
\$150,500	72.7%	0%	YEAR 1 2006 Feb	0%	0%	\$0	\$0	\$0	
\$400,000		5%	Mar	5%	5%	\$20,000	\$20,000	\$163	
		10%	April	10%	15%	\$40,000	\$60,000	\$488	
		10%	May	10%	25%	\$40,000	\$100,000	\$813	
		10%	June	10%	35%	\$40,000	\$140,000	\$1,138	
		10%	July	10%	45%	\$40,000	\$180,000	\$1,463	
		10%	Aug	10%	55%	\$40,000	\$220,000	\$1,788	
		10%	Oct	10%	65%	\$40,000	\$260,000	\$2,113	
		10%	Nov	10%	75%	\$40,000	\$300,000	\$2,438	
		10%	Dec	10%	85%	\$40,000	\$340,000	\$2,764	
		5%	Jan	5%	90%	\$20,000	\$360,000	\$2,926	
						Total for Fiscal Year	\$16,093	\$16,093	
		5%	Year 2 2007 Feb	5%	95%	\$20,000	\$380,000	\$3,089	
		5%	Mar	5%	100%	\$20,000	\$400,000	\$3,251	
		0%	April	0%	100%	\$0	\$400,000	\$3,251	
		0%	May	0%	100%	\$0	\$400,000	\$3,251	
			June				\$400,000	\$3,251	
			July				\$400,000	\$3,251	
			Aug				\$400,000	\$3,251	
			Sept				\$400,000	\$3,251	
			Oct				\$400,000	\$3,251	
			Nov				\$400,000	\$3,251	
			Dec				\$400,000	\$3,251	
			Jan				\$400,000	\$3,251	
						Total for Fiscal Year	\$38,852	\$38,852	

	Year I	Year II	Year III	Year IV	Year V	Year VI
Annual Mortgage Cost	\$16,093	\$38,852	\$39,014.16	\$39,014.16	\$39,014.16	\$39,014.16

Sum1: Summary of Machinery, Equipment and Furnishings

	Year I	Year II	Year III	Year IV	Year V	Year VI
Reference						
Hand and Power Tools			\$17,250			
Machinery and Equipment			\$91,425	\$6,009		
Stone Restoration			\$0			
Computer Lab and Classroom			\$0		\$4,600	
			\$36,570			
			\$127,995			
Sub-Total:			\$27,690			
Administration: Furniture, Etc			\$27,690			
Total			\$172,935			

Off-setting Grants

	Year I	Year II	Year III	Year IV	Year V	Year VI	Total
	\$0		0				\$0
	\$0						\$0
	\$0						\$0
	\$0						\$0
	\$0						\$0
	\$0						\$0
	\$0						\$0
	\$0			\$0	\$0	\$0	\$0

Tools: Masonry Power Tools and Hand Tools			
Description	Number	Unit Cost	Total Cost
			\$0
			\$0
			\$0
			\$0
			\$0
			\$0
			\$0
Estimate based on discus	0	\$0	\$15,000
Total:			\$15,000
GST and PST			\$2,250
Total:			\$17,250

M&E: Machinery and Equipment Budget

Description	Units	Cost/Unit	Total Cost
Estimate Based on discussions with other training facilities Includes (but not limited to) See Attached List:	1	\$75,000	\$75,000
			\$0
			\$0
			\$0
			\$0
			\$0
			\$0
			\$0
			\$0
Total, excl shipping, installation, training and tax			\$75,000
Shipping	5%		\$3,750
Installation	1%		\$750
Sub-Total			\$79,500
GST and PST	15%		\$11,925
Total estimated capital cost			\$91,425

Other

Description	Units	Cost/Unit	Total Cost	Comment
			\$0	
			\$0	
			\$0	
			\$0	
			\$0	
			\$0	
			\$0	
			\$0	
			\$0	
			\$0	
			\$0	
			\$0	
			\$0	
			\$0	
			\$0	
Total, excl shipping, installation, training and tax			<u>\$5,000</u>	
Shipping			\$0	
Installation			\$150	all quotes are delivered
Training at 3% on half of capital cost			\$75	3%
				3%
Sub-Total			<u>\$5,225</u>	
GST and PST			\$784	15%
Total estimated capital cost			<u>\$6,009</u>	

Comp: Computer Lab and Classroom Estimates

Cost per Station	
Computer Hardware	
Computer Desktop	\$1,500
17" Monitor - E 74 (required for CAD)	\$425
Ethernet Card	\$135
Optical Mouse (no maintenance)	\$135
Wiring and Installation	\$250
Computer Hardware per Station	<u>\$2,445</u>

Software:	
MS Office XP Suite	\$0
AutoCad Lite	\$660
Estimating Software - allowance	\$350
Anti-Virus	\$75
Windows NT	\$700
Computer Software per Station	<u>\$1,785</u>

Furnishings:	
Desk	\$450
Chair	\$250
Document Holder	\$15
Mouse Pad	\$25
Furnishings per Station	<u>\$740</u>

Summary - Station Costs	
Computer Hardware per Station	\$2,445
Computer Software per Station	\$1,785
Furnishings per Station	\$740
Total Station Costs	<u>\$4,970</u>

Total Station Costs	
No. of Stations	8
Cost per Station	\$4,970
Total Station Costs	<u>\$24,000</u>

Common Costs:
 Computer-Related
 Server; \$0
 Server Software \$0
 Network Printer: \$850
 LED Projector: \$3,000
 White Boards (1) @ 650 \$650
 Book Cases (4) @ \$350 \$1,400
 VCR \$250
 Monitor (1) @\$550 \$1,650

Instructor Station
 Desk \$650
 Chair \$350
 Computer Station \$4,230
 Total Common Costs \$7,800

Total Estimated Cost - Equipment
 Net \$31,800
 Tax (15%) \$4,770
 Total: \$36,570

Building Customization
 Estimated cost of modifications for network,
 multiple wiring, etc. \$0
 GST \$0
 Total: \$0

Total Estimated Cost **\$36,570**

Adm: Administration - Equipment and Furnishings

Executive Director/H.I.	
Computer Station	\$4,230
Desk	\$950
Credenza	\$0
Office Chair	\$300
Bookcases 3 @ \$150	\$450
Filing Cabinets 3 @ \$150	\$450
Board Table Chairs 10 @ \$30	\$0
Board Table	\$0
Printer/Scanner Table	\$150
Printer-Fax	\$1,500
Scanner	\$300
Head Instructor	
Computer Station	\$0
Desk	\$0
Credenza	\$0
Office Chair	\$0
Bookcases	\$0
Filing Cabinets 2 @ \$250	\$0
Secretary / Bookkeeper	
Computer Station	\$4,230
Desk	\$500
Credenza	\$250
Office Chair	\$250
Bookcases	\$150
Filing Cabinets 2 @ \$150	\$300
Printer Table	\$150
Printer	\$750

Spare Office (Part-Time Instructors)	
Computer Station	\$4,230
Desk	\$300
Credenza	\$0
Office Chair	\$200
Bookcases	\$250
Filing Cabinets 2 @ \$150	\$300
Phone System	\$5,000
Network Installation Costs	\$2,500
Security System	\$3,000
Total	<u>\$27,690</u>

Upgrade: Skill Upgrade Training

	Est. No. Upgrade Courses	Full-Year Operation			Total Sessions Offered	Total Hours of Evening Courses	Evening Upgrade Course Participants	Consumables per Session	Total Consumables
		Avg. No. of 3 hr Sessions* per Course	No. of Times Offered Per Year	No. of Times Offered Per Year					
Evening Courses									
Upgrade (C of Q)	1	3	1	3	9	15	\$20	\$60	
Blueprint Reading	1	3	1	3	9	15	\$50	\$150	
Mortars	1	2	1	2	6	15	\$75	\$150	
Stone Placing/Carving	1	4	3	12	36	15	\$50	\$600	
Restoration	1	2	2	4	12	15	\$50	\$200	
Totals	5	14	8	24	72	75	Average/Session	\$1,160	
Capacity: Monday-Thursday / 48 weeks									

	Est. No. Upgrade Courses	Avg. No. of 12 hr Sessions* per Course	No. of Times Offered Per Year	Total Sessions Offered	Total Hours of Weekend Courses	Weekend Upgrade Course Participants
Restoration	1	1	1	1	12	10
Stone	1	1	1	1	12	10
				0	0	0
				0	0	0
				0	0	0
				0	0	0
Totals:	2	2	2	2	24	20
Capacity	48					

Total Number of Upgrade Course Participants	
Evening Courses	75
Weekend Courses	20
Total	<u>95</u>

Evening Session Costs:	
Instructor (3 hrs @ \$42/hr)	\$126
Consumables	\$10
Refreshments (Coffee, Soft Drinks, Snacks)	\$25
Printed Materials	\$25
Misc.	\$50
Total:	<u>\$236</u>

Weekend Specialized Course Costs:	
Session Costs (4 x evening)	\$944
Avg. Travel Stipend	\$350
Avg Accommodation (2 nights/shared)	\$90
Per Diem in lieu of meals	\$25
No. of Participants in Course eligible for Travel Support	5
Total Travel and Accommodation Costs	\$2,325
Total Costs for Weekend Course	\$3,269

Distance Courses:	
Average Cost	\$4,500

	Year I	Year II	Year III	Year IV	Year V	Year VI
No. of Evening Sessions	0	0	0	8	8	8
Cost of Evening Sessions	\$0	\$0	\$0	\$1,888	\$1,888	\$1,888
No. of Specialized Weekend Courses	0	0	0	1	1	2
Cost of Weekend Course	\$0	\$0	\$0	\$3,269	\$3,269	\$6,538
Total Upgrade Costs	\$0	\$0	\$0	\$5,157	\$5,157	\$8,426
No. of Participants			0	15	15	15

Curr: Curriculum Development Costs

Upgrade Courses	Est. No. Upgrade Courses	Avg. No. of 3 hr Sessions* per Course	Total Sessions Developed
Restoration	2	2	4
Blupring Reading	2	4	8
Stone Cutting	3	4	12
Total			24

Estimated Development Cost per 3-hour Session	
Content Expert(s)	\$700
Illustrators / Designers	\$700
Initial Print Runs	\$500
Total Costs per 3-hour Session	\$1,900

Other

\$0 0

Bricklayer Apprenticeship (Adapt training curriculum used by other Training Centres) (\$200/day)	
Basic: 40 days	\$8,000
Intermediate: 40 days	\$8,000
Advanced: 40 days	\$8,000
* Curriculum material available from other provinces	

	Year I	Year II	Year III	Year IV	Year V	Year VI
Approx. No. of 3-hour Upgrade Sessions Developed (new)		0	0	3	0	0
Upgrade Course Development Costs		\$0	\$0	\$5,700	\$0	\$0
Specialty Areas Curriculum Development		\$0	\$0	\$3,000		
Apprenticeship Development		\$8,000	\$8,000	\$8,000		
Total Curriculum Development Costs		\$8,000	\$8,000	\$16,700	\$0	\$0
Total						\$32,700

Apprent2: Apprenticeship Enrichment Training or Pre-Apprenticeship

Assumptions:

No. of Evening Enrichment Sessions per 8 Weeks	0
No. of Weekend Enrichment Sessions per 8 Weeks:	1
Cost of Evening Session	\$236
Cost of Weekend Session	\$472

Total Cost of Enrichment Sessions per 8 Week Coi \$472

	Year I	Year II	Year III	Year IV	Year V	Year VI
Total No. of 8 Week Apprenticeship Courses	0	2.6	3.5	3.8	3.5	3.4
Cost of Enrichment Sessions	\$0	\$1,227	\$1,652	\$1,770	\$1,652	\$1,613

Mar: Marketing and Promotion

	Year I	Year II	Year III	Year IV	Year V	Year VI
Trade Promotion						
Web Site		\$8,500	\$1,000	\$1,000	\$1,000	\$3,500
Development			\$0			\$1,000
Maintenance			\$750			
Video (15 minutes)			\$0		\$0	\$1,500
PowerPoint Presentation			\$1,000	\$1,000	\$1,000	\$1,000
Brochure		\$5,500	\$1,000	\$2,000	\$2,000	\$2,000
School Visits		\$500	\$1,500	\$1,500	\$1,500	\$1,500
Community Outreach						
Trade Fairs Careers Events - Exhibits	\$0					
To train employers and journey person for presentations to schools and community agencies			\$0	\$0	\$0	\$0
Upgrade Training Promotion			\$0			\$0
Display for Conventions, etc			\$0	\$0	\$2,000	\$0
Brochure			\$0	\$500	\$0	\$0
Local Meetings			\$0	\$0	\$0	\$0
Direct Mail			\$0	\$0	\$0	\$1,000
Total		\$16,000	\$5,250	\$7,500	\$7,500	\$11,500

Estimated Value of Own Contribution (Non-Cash)

If applying for other government funding this will need to be estimated

	Year I	Year II	Year III	Year IV	Year V	Year VI
Board Members						
No. of Board Members	6,000					
Avg days per Board Member per year	\$400					
Avg value of contributed day	0	0	0	0	0	0
Total Board Member Days	\$0	\$0	\$0	\$0	\$0	\$0
Value of Board Member Days						
Executive Committee Members						
No. of Exec Cttee Members	4					
Avg days per Exec Cttee Member per year	6					
Avg value of contributed day	\$400					
Total Exec Cttee Member Days	0	0	0	0	0	0
Value of Exec Cttee Member Days	\$0	\$0	\$0	\$0	\$0	\$0
Committee Participation - LMP						
No. of Members	0					
Avg days per Member	10					
Avg value of contributed day	\$400					
Total LMP Cttee Days	0	0				
Value of LMP Cttee Days	\$0	\$0				
Value of Contributed Staff Time - Administration						
	0					
	0					
	0					
	\$0					
Total Days	0	0	0	0	0	0
Value of Contributed Time per Day	\$400	\$0	\$0	\$0	\$0	\$0
Value of Contributed Office Space and Services						
Estimated Value per Month	\$0					
Estimated Total Value	\$0	\$0	\$0	\$0	\$0	\$0
Total Estimated Value of Own Contribution - Administration						
	\$0	\$0	\$0	\$0	\$0	\$0

Total Estimated Value of Own Contribution - Marketing

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Marketing							
Avg days per year	0	0	0	0	0	0	0
Skilled Trade fairs/Career fairs	0	0	0	0	0	0	0
Highschool presentations	0	0	0	0	0	0	0
Activity and Promotion committee	0	0	0	0	0	0	0
Avg value of contributed day	\$400	\$0	\$0	\$0	\$0	\$0	\$0
Total Days	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Value of Days							
Administration							
Training Trust Fund Board	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Training Trust Fund Executive Committee	\$0	\$0	\$0	\$0	\$0	\$0	\$0
HRDC supported LMP Committee	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Industry Resource Persons	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contributed Office Space and Office Services	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Marketing	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Consumables

	Units	Cost/unit	Total
Brick	-	\$	-
Mortar	-	\$	-
Blocks	-	\$	-
Other Consumables	-	\$	-
Total		\$	\$ 30,000

May be offset by donations

Saskatchewan Masonry Training Centre Rent Building

Version 3
Tuesday, November 23, 2004

Spreadsheet	Page
Pro Forma: Receipts and Disbursements (Cash Flow Basis)	
TTF: Training Trust Fund Contribution Income	
TDA: Training Delivery Agency - Apprenticeship Training Per Diem Income	
Admin-TTF: Administration - Training Trust Fund	
Admin-TC: Management and Administration of Training Centre	
L&B: Land and Building	
Sum1: Summary of Machinery, Equipment and Furnishings	
Tools: Power Tools and Hand Tools	
M&E: Machinery and Equipment Budget	
Comp: Computer Lab and Classroom Estimates	
Adm: Administration - Equipment and Furnishings	
Upgrade: Skill Upgrade Training	
Apprent1: Apprenticeship Training	
Apprent2: Apprenticeship (pre-apprenticeship or additional training)	
Instr: Part-Time Instructor Requirements	
Curr: Curriculum Development Costs	
Mar: Marketing and Promotion	
Own: Own Contribution Estimates	
Con: Consumables	

Pro Forma: Receipts and Disbursements (Cash Flow Basis)

	Reference	Year I	Year II	Year III	Year IV	Year V	Year VI
With the premise of Renting Buidling							
<i>Receipts</i>							
Gross Contributions to TTF	TTF	\$100,000	\$117,000	\$117,000	\$117,000	\$117,000	\$117,000
TDA Per Diem Revenue	TDA	\$0	\$84,320	\$91,760	\$91,760	\$91,760	\$79,360
Other Grants	Sum 1	\$0	\$0	\$0	\$0	\$0	\$0
Curriculum Development Support		\$0	\$0	\$0	\$0	\$0	\$0
Mortgage/Industry Loan	L&B	\$0	\$0	\$0	\$0	\$0	\$0
HRDC - LMP Agreement		\$0	\$0	\$0	\$0	\$0	\$0
Interest		\$250	\$248	\$299	\$290	\$270	\$345
Other (i.e. partners)		\$50,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000
Total Receipts		\$150,250	\$241,568	\$249,059	\$249,050	\$249,030	\$236,705
<i>Disbursements</i>							
Management and Administration:							
Administration - TTF	Admin-TTF	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
Management and Administration - Training Centre							
Salaries and Administration	Admin-TC	\$40,950	\$69,149	\$78,370	\$80,329	\$82,337	\$84,396
Occupancy Costs	Admin-TC	n/a	\$2,730	\$10,920	\$11,193	\$11,473	\$11,760
Professional Fees	Admin-TC			\$0	\$0	\$0	\$0
Training Improvement Coordinator	Admin-TC	\$0	\$0	\$0	\$0	\$0	\$0
Land and Building:							
Rent	L&B	n/a	\$15,000	\$45,000	\$45,600	\$46,200	\$46,800
Building (from Mortgage or other sources)	L&B	\$0	\$0	\$0	\$0	\$0	\$0
Land -	L&B	\$0	\$0	\$0	\$0	\$0	\$0
Machinery, Equipment and Furnishings:							
Acquisition Costs:							
Hand and Power Tools	Sum1	\$0	\$8,625	0	\$8,625	\$0	\$0
Machinery and Equipment	Tools	\$0	\$77,625	\$19,406	\$19,406	\$0	\$0
Stone	M&E	\$0	\$0	\$0	\$6,009	\$0	\$0
Restoration		\$0	\$0	\$0	\$0	\$4,600	\$0
Refractory		\$0	\$0	\$0	\$0	\$0	\$0
Computers		\$0	\$0	\$0	\$0	\$0	\$0
Administration	Comp	\$0	\$0	0	\$0	\$0	\$0
	Adm	\$0	\$0	\$27,690	\$0	\$0	\$0
Annual Maintenance & Warranty Costs for M&E (2%)	M&E	\$0	\$0	\$235	\$170	\$23	\$0

Pro Forma: Receipts and Disbursements (Cash Flow Basis)

	Reference	Year I	Year II	Year III	Year IV	Year V	Year VI
With the premise of Renting Buidling							
Training Delivery:							
Tuition Off-set (\$15/week) - no tuition is expected to be charged		\$0	\$0	\$0	\$0	\$0	\$0
Locally Delivered Training, incl. Instructors Costs		\$0	\$0	\$0	\$0	\$0	\$0
Skill Upgrade Delivery, incl. Instructors Costs	Upgrade	\$0	\$0	\$0	\$0	\$0	\$0
Apprenticeship Delivery	Apprent1	\$0	\$30,135	\$47,620	\$48,810	\$50,030	\$44,351
Apprenticeship Enrichment Training Delivery, incl. Instructor Costs	Apprent2	\$0	\$0	\$0	\$0	\$0	\$0
Instructors (Apprenticeship) & Head Instructor	Instr	\$0	\$0	\$0	\$0	\$0	\$0
Curriculum Development	Curr	\$0	\$8,000	\$8,000	\$16,700	\$0	\$0
Marketing and Promotion	Mar	\$0	\$0	\$5,250	\$10,500	\$14,250	\$9,000
Total Disbursements		\$50,950	\$221,264	\$252,491	\$257,343	\$218,914	\$206,307
Surplus / Deficit (-) on Year		\$99,300	\$20,305	-\$3,432	-\$8,292	\$30,116	\$30,398
Cumulative Surplus / Deficit (-) Reserve		\$99,300	\$119,605	\$116,172	\$107,880	\$137,996	\$168,394

TTF: Training Trust Fund Contribution Income

Province	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Manitoba													
Saskatchewan													
Alberta													
British Columbia													
TOTALS	0	0	0	0	0	0	0	0	0	0	0	0	0

2002-2003 Hours
 2002 May
 June
 July
 August
 September
 October
 November
 December
 2003 January
 February
 March
 April
 Total

YR 1 - \$100K
 (\$0.60 per hour contribution)
 0.6
 Average Hours: 2000 - 2002
 Est. Actual Hours: 2002-2003
 Projected Hours: 2003/04-2007/08

235 total bricklayers
 150 union
 1300 annual hours

1. Year one no training, still done in SIAST
2. Year II will displace SIAST and will integrate 45 registered app.
3. Year II will also start new intakes of 12 per year
4. Traditional completion rates are 50%
5. Apprentices generally don't take consecutive levels (not enough hours)

62
61
54 0.870968

iii	iv	v	vi
24905.9	24905.04	20752.48	19725.42
6731.325	6731.093	6730.532	7397.031

	Existing/ New Regs	Residual	Sub-total	Drop Out	Potential Intake	Actual Class	RESIDUAL
YR 2	15	10	25	3	23	12	11
Level 1		20	20	2	18	12	6
Level 2		15	15	2	14	10	4
Level 3							
YR 3							
Level 1	15	11	26	3	23	15	8
Level 2	12	6	18	2	16	12	4
Level 3	12	4	16	2	14	10	4
YR 4							
Level 1	12	8	20	2	18	15	3
Level 2	15	4	19	2	17	12	5
Level 3	12	4	16	2	14	10	4
YR 5							
Level 1	12	3	15	1	13	10	3
Level 2	15	5	20	2	18	15	3
Level 3	12	4	16	2	15	12	3
YR 6							
Level 1	12	3	15	2	14	10	4
Level 2	10	3	13	1	12	10	2
Level 3	15	3	18	2	16	12	4

Apprent1: Apprenticeship Training

Assumptions:

Duration of Apprenticeship Course (days):	40
No. of Students per Course:	15
Average Consumables per Day/per Student	Brick \$20 Other \$3 Other \$0 Other \$23
Weighted Average (Est.)	\$180 (\$.3/km x 20 km x 40) - not paying for the first 40 km's
Average Travel Stipend - Commuting Students	\$300
Average Travel Stipend - In Residence Students not EI Eligible	\$45
Accommodation Cost (one night-shared)	\$2,520 Preliminary Est
Average Accommodation Cost (56 nights/shared)	-\$840
EI Living Away From Home Allowance (Offset Accommm.)	-
Average No. of Accomodated Students per Course	-
Average No. of Commuting Students per Course	\$0 (paid to all)
Per Diem Rate	\$100
Sundry Costs per Course per week	
Tuition (if charged)	

Cost per Apprenticeship Course	
Refreshments	\$100
Consumables	\$13,800
Accommodation Costs	\$0
EI Accommodation Offset	\$0
Travel Stipends - Commuting Students	\$0
Per Diem Costs	\$0
Sundry Costs	\$800
Total Costs per Course	\$14,700
Tuition Off Set	\$0

	Year I	Year II	Year III	Year IV	Year V	Year VI
No of Bricklayer Courses	0	2	3	3	3	3
No of Other Courses	0	0	0	0	0	0
No. of Other Courses	0	0	0	0	0	0
Total No. of Courses	0	2	3	3	3	3

Cost per Course	\$14,700	\$15,068	\$15,444	\$15,830	\$16,226	\$16,632
Cost of Courses	\$0	\$30,135	\$47,620	\$48,810	\$50,030	\$44,351
Tuition Off-set	\$0	\$0	\$0	\$0	\$0	\$0

No. of Apprentices						
Bricklayer	0	15	30	37	37	32
Other	0	0	0	0	0	0
Other	0	0	0	0	0	0
Total	0	15	30	37	37	32

Admin-TTF: Administration - Training Trust Fund

	Year I	Year II	Year III	Year IV	Year V	Year VI
Audit	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00
Legal	\$2,500.00	\$0	\$0	\$0	\$0	\$0
Insurance D&O	\$2,500.00	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500
Administration Fees	\$3,000.00	\$3,000.00	\$3,000.00	\$3,000.00	\$3,000.00	\$3,000.00
Meetings, Travel, Per Diems	\$0.00	\$2,500.00	\$2,500.00	\$2,500.00	\$2,500.00	\$2,500.00
Trade and Skills Fairs						
Misc. Expenses	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00
Total Administration	\$10,000.00	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000

Admin-TC: Management and Administration of Training Centre

	Year I	Year II	Year III	Year IV	Year V	Year VI
Salaries and Administration						
Training Director/Head Instructor	\$30,000	\$50,000	\$50,000	\$51,250	\$52,531	\$53,845
Admin Support	n/a	\$8,000	\$8,000	\$12,000	\$12,300	\$12,608
Sub-Total	\$30,000	\$58,000	\$58,000	\$63,250	\$64,831	\$66,452
Benefits, Etc	\$7,500	\$7,688	\$14,500	\$14,863	\$15,234	\$15,615
Payroll Taxes	\$450	\$461	\$870	\$892	\$914	\$937
Sub-Total	\$37,950	\$66,149	\$73,370	\$75,204	\$77,084	\$79,011
Administration Expenses	\$3,000	\$3,000	\$5,000	\$5,125	\$5,253	\$5,384
Total:	\$40,950	\$69,149	\$78,370	\$80,329	\$82,337	\$84,396

Inflation Factor: 2.5%

Share of Training Coordinator Costs

	Cost per sq. Ft. / Mo	Monthly Cost
Occupancy Costs	3,500	
Total Sq. Ft.		
Utilities	\$0.10	\$350
Cleaning	\$0.05	\$175
Insurance - Contents	\$0.04	\$140
Insurance - Liability	\$0.05	\$175
Snow Removal, Landscaping	\$0.00	\$0
Property Taxes	\$0.00	\$0
Security	\$0.02	\$70
Maintenance - Building (excl equipment)	\$0.00	\$0
Total Occupancy Costs	\$0.26	\$910

Professional Fees

Audit and Accounting						
Legal						
Allowance for Other	0	\$0	\$0	\$0	\$0	\$0
Total Professional Fees	\$0	\$0	\$0	\$0	\$0	\$0
Total Management and Administration and Instruction	\$0	\$0	\$89,290	\$91,522	\$93,810	\$96,156

included in TTF Administration Expenses
included in TTF Administration Expenses

Instr: Part-Time Instructor Requirements and Head Instructor

Head Instructor	\$0
Salary	\$0
Benefits (25%)	\$0
Payroll Taxes (6%)	\$0
	<hr/>
	\$0

	Year I	Year II	Year III	Year IV	Year V	Year VI
Total No. of 8 Week Apprenticeship Courses	0	3	3	3	3	3
Total Apprenticeship Weeks of Instruction	0	24	24	24	24	24
Shop Instruction:						
Head Instructor - Weeks of Teaching	0	24	24	24	24	24
Part-Time Instructors - Weeks of Teaching	0	0	0	0	0	0
Cost per Week (\$40/hr)		\$1,600	\$1,600	\$1,600	\$1,600	\$1,600
Cost of Part Time Shop Instructors	\$0	\$0	\$0	\$0	\$0	\$0
Computer Instruction						
Est. 1 week per 8 week session		0	0	0	0	0
Cost per Week (\$42/hr) - increased yearly		\$1,600	\$1,600	\$1,600	\$1,600	\$1,600
Cost of Part-Time Computer Instructors		\$0	\$0	\$0	\$0	\$0
Total Cost of Part-Time Instructors	\$0	\$0	\$0	\$0	\$0	\$0
Head Instructor (part of Exec. Dir role)			\$0	\$0	\$0	\$0
Total Instructor Costs	\$0	\$0	\$0	\$0	\$0	\$0

L&B: Land and Building

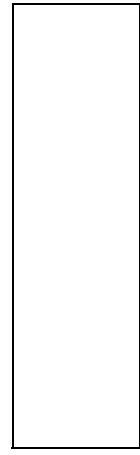
May-05

Land:	No. of Acres	1
	Cost per Acre (including gst)	\$0
	Land Cost	\$0
	Legal Fees	\$0
	Other Professional Fees (Environmental, etc)	\$0
	Land Transfer Tax	\$0
	Total Land Costs (Equity)	\$0

Land Transfer Tax: - Not Applicable		
Transaction Range	Rate	Amount
\$1 to \$55,000	0.0%	\$55,000
\$55,001 to \$250,000	0.0%	\$195,000
>\$250,000	0.0%	\$0
Total Land Transfer Tax		\$0

Building:	Site Preparation Costs	\$0
	Est. Sq. Ft	-
	Cost per Sq. Ft.	\$70.00
	Building Construction Costs-basic	\$0
	Contingency Allowance (5%)	\$0
	Est. Construction Cost net of GST	\$0
	GST 7%	\$0
	Total Est. Construction Cost	\$0
	Professional Fees related to Building Construction	
	Legal Fees	\$0
	Other Professional Fees	\$0
	Municipal Fees	
	Application	\$0
	Connection Charges	\$0
	Inspection Charges	\$0
	Development Charges	\$0
	Property Taxes: One Year	\$0
	Allowance for Miscellaneous Costs	\$0
	Total Construction Costs (Mortgage)	\$0
		\$0 rounded up

Total Land and Building	\$0	#DIV/0!
Equity	\$0	#DIV/0!
Mortgage	\$0	#DIV/0!
Mortgage		
Principal	\$400,000	
Amortization	25	
Rate	7.00%	
Compound	semi-annual	
Monthly Payment	\$3,251.18	
Annual	\$39,014.16	



	Mortgage Draw Down			Cumulative %	Amount	Cumulative \$	Monthly Payment
	Percent	Percent	Amount				
2006 Jan	0%	0%	\$0	0%	\$0	\$0	\$163
YEAR 1 2006 Feb	0%	0%	\$0	0%	\$0	\$0	\$488
Mar	5%	5%	\$20,000	5%	\$20,000	\$20,000	\$813
April	10%	10%	\$40,000	15%	\$40,000	\$60,000	\$1,138
May	10%	10%	\$40,000	25%	\$40,000	\$100,000	\$1,463
June	10%	10%	\$40,000	35%	\$40,000	\$140,000	\$1,788
July	10%	10%	\$40,000	45%	\$40,000	\$180,000	\$2,113
Aug	10%	10%	\$40,000	55%	\$40,000	\$220,000	\$2,438
Oct	10%	10%	\$40,000	65%	\$40,000	\$260,000	\$2,764
Nov	10%	10%	\$40,000	75%	\$40,000	\$300,000	\$2,926
Dec	10%	10%	\$40,000	85%	\$40,000	\$340,000	\$16,093
Jan	5%	5%	\$20,000	90%	\$20,000	\$360,000	
			Total for Fiscal Year				
Year 2 2007 Feb	5%	5%	\$20,000	95%	\$20,000	\$380,000	\$3,251
Mar	5%	5%	\$20,000	100%	\$20,000	\$400,000	\$3,251
April	0%	0%	\$0	100%	\$0	\$400,000	\$3,251
May	0%	0%	\$0	100%	\$0	\$400,000	\$3,251
June						\$400,000	\$3,251
July						\$400,000	\$3,251
Aug						\$400,000	\$3,251
Sept						\$400,000	\$3,251
Oct						\$400,000	\$3,251
Nov						\$400,000	\$3,251
Dec						\$400,000	\$3,251
Jan						\$400,000	\$3,251
			Total for Fiscal Year			\$400,000	\$38,852

	Year I	Year II	Year III	Year IV	Year V	Year VI
Annual Mortgage Cost	\$16,093	\$38,852	\$39,014.16	\$39,014.16	\$39,014.16	\$39,014.16

Tools: Masonry Power Tools and Hand Tools

Description	Number	Unit Cost	Total Cost
			\$0
			\$0
			\$0
			\$0
			\$0
			\$0
			\$0
Estimate based on discussions	0	\$0	\$15,000
Total:			\$15,000
GST and PST			\$2,250
Total:			\$17,250

Other

Description	Units	Cost/Unit	Total Cost	Comment
			\$0	
			\$0	
			\$0	
			\$0	
			\$0	
			\$0	
			\$0	
			\$0	
			\$0	
			\$0	
			\$0	
			\$0	
			\$0	
			\$0	
			\$0	
			\$0	
			\$0	
Total, excl shipping, installation, training and tax			\$5,000	
Shipping		all quotes are delivered	\$0	
Installation	3%		\$150	
Training at 3% on half of capital cost	3%		\$75	
Sub-Total			\$5,225	
GST and PST	15%		\$784	
Total estimated capital cost			\$6,009	

Comp: Computer Lab and Classroom Estimates

Cost per Station	
Computer Hardware	
Computer Desktop	\$1,500
17" Monitor - E 74 (required for CAD)	\$425
Ethernet Card	\$135
Optical Mouse (no maintenance)	\$135
Wiring and Installation	\$250
Computer Hardware per Station	<u>\$2,445</u>

Software:	
MS Office XP Suite	\$0
AutoCad Lite	\$660
Estimating Software - allowance	\$350
Anti-Virus	\$75
Windows NT	\$700
Computer Software per Station	<u>\$1,785</u>

Furnishings:	
Desk	\$450
Chair	\$250
Document Holder	\$15
Mouse Pad	\$25
Furnishings per Station	<u>\$740</u>

Summary - Station Costs	
Computer Hardware per Station	\$2,445
Computer Software per Station	\$1,785
Furnishings per Station	\$740
Total Station Costs	<u>\$4,970</u>

Total Station Costs	
No. of Stations	0
Cost per Station	\$4,970
Total Station Costs	<u>\$0</u>

Common Costs:
 Computer-Related
 Server; \$0
 Server Software \$0
 Network Printer: \$850
 LED Projector: \$3,000
 White Boards (1) @ 650 \$650
 Book Cases (4) @ \$350 \$1,400
 VCR \$250
 Monitor (1) @\$550 \$1,650

Instructor Station
 Desk \$650
 Chair \$350
 Computer Station \$4,230
 Total Common Costs \$7,800

Total Estimated Cost - Equipment
 Net \$7,800
 Tax (15%) \$1,170
 Total: \$8,970

Building Customization
 Estimated cost of modifications for network,
 multiple wiring, etc. \$0
 GST \$0
 Total: \$0

Total Estimated Cost **\$0**

Adm: Administration - Equipment and Furnishings

Executive Director/H.I.	
Computer Station	\$4,230
Desk	\$950
Credenza	\$0
Office Chair	\$300
Bookcases 3 @ \$150	\$450
Filing Cabinets 3 @ \$150	\$450
Board Table Chairs 10 @ \$300	\$0
Board Table	\$0
Printer/Scanner Table	\$150
Printer-Fax	\$1,500
Scanner	\$300
Head Instructor	
Computer Station	\$0
Desk	\$0
Credenza	\$0
Office Chair	\$0
Bookcases	\$0
Filing Cabinets 2 @ \$250	\$0
Secretary / Bookkeeper	
Computer Station	\$4,230
Desk	\$500
Credenza	\$250
Office Chair	\$250
Bookcases	\$150
Filing Cabinets 2 @ \$150	\$300
Printer Table	\$150
Printer	\$750
Spare Office (Part-Time Instructors)	
Computer Station	\$4,230
Desk	\$300
Credenza	\$0
Office Chair	\$200
Bookcases	\$250
Filing Cabinets 2 @ \$150	\$300
Phone System	\$5,000
Network Installation Costs	\$2,500
Security System	\$3,000
Total	<u>\$27,690</u>

Upgrade: Skill Upgrade Training

Evening Courses	Est. No. Upgrade Courses	Full-Year Operation		Total Sessions Offered	Total Hours of Evening Courses	Evening Upgrade Course Participants	Consumables per Session	Total Consumables
		Avg. No. of 3 hr Sessions* per Course	No. of Times Offered Per Year					
Upgrade (C of Q)	0	15	1	0	0	0	\$20	\$0
Blueprint Reading	0	3	1	0	0	0	\$50	\$0 Blueprint Reading
Mortars	0	2	1	0	0	0	\$75	\$0 Rigging
Computer Skills	0	4	3	0	0	0	\$50	\$0 Computer Skills
CAD	0	4	2	0	0	0	\$50	\$0 CAD
Totals	0	28	8	0	0	0	Average/Session	\$0
Capacity: Monday-Thursday / 48 weeks								

Weekend Courses	Est. No. Upgrade Courses	Avg. No. of 12 hr Sessions* per Course	No. of Times Offered Per Year	Total Sessions Offered	Total Hours of Weekend Courses	Weekend Upgrade Course Participants
	0	0	0	0	0	0
Totals:	0	0	0	0	0	0
Capacity						

Total Number of Upgrade Course Participants
 Evening Courses
 Weekend Courses
 Total

Evening Session Costs:
 Instructor (3 hrs @ \$42/hr) \$126
 Consumables \$10
 Refreshments (Coffee, Soft Drinks, Snacks) \$25
 Printed Materials \$25
 Misc. \$50
 Total: \$236

Weekend Specialized Course Costs:

Session Costs (4 x evening)	\$944
Avg. Travel Stipend	\$350
Avg Accommodation (2 nights/shared)	\$90
Per Diem in lieu of meals	\$25
No. of Participants in Course eligible for Travel Support	5
Total Travel and Accommodation Costs	\$2,325
Total Costs for Weekend Course	\$3,269

Distance Courses:

Average Cost	\$4,500
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	Year I	Year II	Year III	Year IV	Year V	Year VI
No. of Evening Sessions	0	0	0	0	0	0
Cost of Evening Sessions	\$0	\$0	\$0	\$0	\$0	\$0
No. of Specialized Weekend Courses	0	0	0	0	0	0
Cost of Weekend Course	\$0	\$0	\$0	\$0	\$0	\$0
Total Upgrade Costs	\$0	\$0	\$0	\$0	\$0	\$0
No. of Participants						
		10	10	10	10	10

Curr: Curriculum Development Costs

Upgrade Courses	Est. No. Upgrade Courses	Avg. No. of 3 hr Sessions* per Course	Total Sessions Developed	Year I	Year II	Year III	Year IV	Year V	Year VI
Restoration	2	2	4						
Blupring Reading	2	4	8						
Stone Cutting	3	4	12						
Total			24						
Estimated Development Cost per 3-hour Session									
Content Expert(s)				\$700					
Illustrators / Designers				\$700					
Initial Print Runs				\$500					
Total Costs per 3-hour Session				\$1,900					
Other									
				\$0	0				
Bricklayer Apprenticeship (Adapt curriculum used by other Training Centres) (\$200/day)									
Basic: 40 days				\$8,000					
Intermediate: 40 days				\$8,000					
Advanced: 40 days				\$8,000					
* Curriculum material available from other provinces									
Approx. No. of 3-hour Upgrade Sessions Developed (new)									
Upgrade Course Development Costs				\$0	\$0	\$0	\$5,700	\$0	\$0
Specialty Areas Curriculum Development				\$0	\$0	\$0	\$3,000	\$0	\$0
Apprenticeship Development				\$8,000	\$8,000	\$8,000	\$8,000	\$0	\$0
Total Curriculum Development Costs				\$8,000	\$8,000	\$8,000	\$16,700	\$0	\$0
									Total
									\$32,700

Apprent2: Apprenticeship Enrichment Training or Pre-Apprenticeship

Assumptions:

No. of Evening Enrichment Sessions per 8 Weeks	0
No. of Weekend Enrichment Sessions per 8 Weeks	0
Cost of Evening Session	\$236
Cost of Weekend Session	\$472

Total Cost of Enrichment Sessions per 8 Week Course \$0

	Year I	Year II	Year III	Year IV	Year V	Year VI
Total No. of 8 Week Apprenticeship Courses	0	2.266666667	3.083333333	3.083333333	3.083333333	2.666666667
Cost of Enrichment Sessions	\$0	\$0	\$0	\$0	\$0	\$0

Mar: Marketing and Promotion

	Year I	Year II	Year III	Year IV	Year V	Year VI
Trade Promotion						
Web Site		\$8,500				
Development			\$1,000	\$1,000	\$1,000	\$1,000
Maintenance			\$0	\$5,000	\$5,000	
Video (15 minutes)			\$750	750		
PowerPoint Presentation			\$0	\$1,500	\$0	\$1,500
Brochure			\$1,000	\$3,000	\$1,000	\$1,000
School Visits		\$5,500	\$1,000	\$2,000	\$3,000	\$3,000
Community Outreach		\$500	\$1,500	\$1,500	\$1,500	\$1,500
Trade Fairs Careers Events - Exhibits	\$0					
To train employers and journey person for presentations to schools and community agencies			\$0	\$0	\$0	\$0
Upgrade Training Promotion						
Display for Conventions, etc			\$0	\$0	\$2,000	\$0
Brochure			\$0	\$500	\$0	\$0
Local Meetings			\$0	\$1,000	\$0	\$1,000
Direct Mail						
Total			\$5,250	\$10,500	\$14,250	\$9,000

No. employers and journey persons trained to present
 No. of school visits
 No. of careers fairs
 No. of visits to community employment agencies
 No. of brochures for guidance counsellors and students

Estimated Value of Own Contribution (Non-Cash)

If applying for other government funding this will need to be estimated

	Year I	Year II	Year III	Year IV	Year V	Year VI
Board Members						
No. of Board Members	6,000					
Avg days per Board Member per year	\$400					
Avg value of contributed day	0	0	0	0	0	0
Total Board Member Days	\$0	\$0	\$0	\$0	\$0	\$0
Value of Board Member Days						
Executive Committee Members						
No. of Exec Cttee Members	4					
Avg days per Exec Cttee Member per year	6					
Avg value of contributed day	\$400					
Total Exec Cttee Member Days	0	0	0	0	0	0
Value of Exec Cttee Member Days	\$0	\$0	\$0	\$0	\$0	\$0
Committee Participation - LMP						
No. of Members	0					
Avg days per Member	10					
Avg value of contributed day	\$400					
Total LMP Cttee Days	0	0				
Value of LMP Cttee Days	\$0	\$0				
Value of Contributed Staff Time - Administration						
Total Days	0	0	0	0	0	0
Value of Contributed Time per Day	\$400	\$0	\$0	\$0	\$0	\$0
Value of Contributed Office Space and Services						
Estimated Value per Month	\$0	\$0	\$0	\$0	\$0	\$0
Estimated Total Value	\$0	\$0	\$0	\$0	\$0	\$0
Total Estimated Value of Own Contribution - Administration	\$0	\$0	\$0	\$0	\$0	\$0

Total Estimated Value of Own Contribution - Marketing

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Marketing						
Avg days per year	0	0	0	0	0	0
Skilled Trade fairs/Career fairs	0	0	0	0	0	0
Highschool presentations	0	0	0	0	0	0
Activity and Promotion committee	0	0	0	0	0	0
Avg value of contributed day	\$400	0	0	0	0	0
Total Days	\$0	\$0	\$0	\$0	\$0	\$0
Value of Days						

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Administration							
Training Trust Fund Board	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Training Trust Fund Executive Committee	\$0	\$0	\$0	\$0	\$0	\$0	\$0
HRDC supported LMP Committee	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Industry Resource Persons	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contributed Office Space and Office Services	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Marketing	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Consumables

	Units	Cost/unit	Total
Brick	-	\$	-
Mortar	-	\$	-
Blocks	-	\$	-
	-	\$	-
	-	\$	-
	-	\$	-
	-	\$	-
	-	\$	-
	-	\$	-
	-	\$	-
	-	\$	-
	-	\$	-
	-	\$	-
	-	\$	-
	-	\$	-
	-	\$	-
	-	\$	-
	-	\$	-
Total		\$	25,000

Reusable Materials

Allowance	\$	-
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TAB 4

Detailed Financials

Saskatchewan Masonry Training Centre
of Excellence

Masonry Western Training Centre Training Improvement Coordinator

Version 3
Tuesday, November 23, 2004

Spreadsheet	Page
Pro Forma: Receipts and Disbursements (Cash Flow Basis)	
TTF: Training Trust Fund Contribution Income	
TDA: Training Delivery Agency - Apprenticeship Training Per Diem Income	
Admin-TTF: Administration - Training Trust Fund	
Admin-TC: Management and Administration of Training Centre	
L&B: Land and Building	
Sum1: Summary of Machinery, Equipment and Furnishings	
Tools: Power Tools and Hand Tools	
M&E: Machinery and Equipment Budget	
Comp: Computer Lab and Classroom Estimates	
Adm: Administration - Equipment and Furnishings	
Upgrade: Skill Upgrade Training	
Apprent1: Apprenticeship Training	
Apprent2: Apprenticeship (pre-apprenticeship or additional training)	
Instr: Part-Time Instructor Requirements	
Curr: Curriculum Development Costs	
Mar: Marketing and Promotion	
Own: Own Contribution Estimates	
Con: Consumables	

TTF: Training Trust Fund Contribution Income

	Year I	Year II	Year III	Year IV	Year V	Year VI
YR 1 - \$100K (\$0.27 to \$0.30 per hour contribution)	\$216,000	\$216,000	\$216,000	\$216,000	\$240,000	\$240,000
\$0.27						
\$0.30						
Average Hours:	1,225					
Est. Actual Hours: 2002-2003	0					
Projected Hours: 2003/04-2007/08	800,000					
1465 total bricklayers						
659.25 union						
1225 annual hours						
807581.25 Total hours						

Pro Forma: Receipts and Disbursements (Cash Flow Basis)
Training Improvement Coordinator

	Reference	Year I	Year II	Year III	Year IV	Year V	Year VI
Receipts							
Gross Contributions to TTF	TTF	\$140,000	\$216,000	\$216,000	\$216,000	\$240,000	\$240,000
Other Grants	Sum 1		\$0	\$0			
Interest		\$350	\$178	\$261	\$287	\$304	\$367
Other (i.e. partners)		\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
Total Receipts		\$165,350	\$241,178	\$241,261	\$241,287	\$265,304	\$265,367
Disbursements							
Management and Administration:							
Administration - TTF	Admin-TTF	\$3,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Management and Administration - Salaries and Administration	Admin-TIC	\$50,600	\$118,865	\$144,843	\$148,464	\$152,175	\$155,980
Occupancy Costs (incl rent)	Admin-TIC	\$3,384	\$6,768	\$6,937	\$7,111	\$7,288	\$7,471
Administration Expenses (office + travel)	Admin-TIC	\$11,700	\$27,200	\$27,880	\$28,577	\$29,291	\$30,024
Total		\$77,384	\$180,033	\$207,540	\$212,728	\$218,046	\$223,498
Marketing and Promotion	Mar	\$8,250	\$20,000	\$22,750	\$21,500	\$22,000	\$22,750
Equipment & Furnishings	Adm	\$8,325	\$8,325	\$250	\$256	\$262	\$3,000
Total Disbursements		\$93,959	\$208,358	\$230,539	\$234,484	\$240,309	\$249,248
Surplus / Deficit (-) on Year		\$71,391	\$32,820	\$10,721	\$6,803	\$24,996	\$16,119
Cumulative Surplus / Deficit (-) Reserve		\$71,391	\$104,211	\$114,933	\$121,736	\$146,731	\$162,851

Admin-TTF: Administration - Training Trust Fund

	Year I	Year II	Year III	Year IV	Year V	Year VI
Audit	\$500.00	\$500.00	\$500.00	\$500.00	\$500.00	\$500.00
Legal	\$1,000.00	\$0	\$0	\$0	\$0	\$0
Insurance D&O	\$0.00	\$0	\$0	\$0	\$0	\$0
Administration Fees	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Meetings, Travel, Per Diems	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
Trade and Skills Fairs						
Misc. Expenses	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total Administration	\$3,000.00	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000

Admin-TIC: Staffing and Occupancy Costs

	Year I	Year II	Year III	Year IV	Year V	Year VI
Salaries and Administration						
Training Improvement Coordinator	\$40,000	\$100,000	\$102,500	\$105,063	\$107,689	\$110,381
Admin Support	n/a	\$8,000	\$12,000	\$12,300	\$12,608	\$12,923
			Inflation Factor:		2.5%	
Sub-Total	\$40,000	\$108,000	\$114,500	\$117,363	\$120,297	\$123,304
Benefits, Etc	\$10,000	\$10,250	\$28,625	\$29,341	\$30,074	\$30,826
Payroll Taxes	\$600	\$615	\$1,718	\$1,760	\$1,804	\$1,850
Sub-Total	\$50,600	\$118,865	\$144,843	\$148,464	\$152,175	\$155,980
Administration Expenses						
Mobile phone	\$900	\$1,800	\$1,845	\$1,891	\$1,938	\$1,987
Long Distance	\$900	\$1,800	\$1,845	\$1,891	\$1,938	\$1,987
Travel budget	\$9,000	\$22,000	\$22,550	\$23,114	\$23,692	\$24,284
Office Supplies	\$800	\$1,400	\$1,435	\$1,471	\$1,508	\$1,545
Printing/Photocopies	\$100	\$200	\$205	\$210	\$215	\$221
Sub-Total	\$11,700	\$27,200	\$27,880	\$28,577	\$29,291	\$30,024
Total:	\$74,000	\$173,265	\$200,603	\$205,618	\$210,758	\$216,027

Occupancy Costs

	Cost per sq. Ft. / Mo	Monthly Cost
Total Sq. Ft.	300	
Utilities	\$0.05	\$15
Cleaning	\$0.05	\$15
Insurance - Building	\$0.05	\$15
Insurance - Liability	\$0.05	\$15
Snow Removal, Landscaping	\$0.01	\$3
Property Taxes	\$0.10	\$30
Security	\$0.02	\$6
Maintenance - Building (excl equipment)	\$0.05	\$15
Rent	\$1.50	450
Total Occupancy Costs	\$1.88	\$564

Professional Fees

Audit and Accounting						
Legal						
Allowance for Other	0	\$0	\$0	\$0	\$0	\$0
Total Professional Fees	\$0	\$0	\$0	\$0	\$0	\$0

Total Management and Administration

	\$77,384	\$180,033	\$207,540	\$212,728	\$218,046	\$223,498
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Adm: Administration - Equipment and Furnishings

Training Improvement Coordinator

Computer Station	\$2,500
Desk	\$950
Credenza	\$0
Office Chair	\$300
Bookcases 3 @ \$150	\$450
Filing Cabinets 3 @ \$150	\$450
Printer/Scanner Table	\$150
Printer-Fax	\$1,000
Scanner	\$300
Digital Camera	\$500
Projector	\$2,500
Mobile Phone	\$200

Secretary / Bookkeeper

Computer Station	\$2,500
Desk	\$500
Credenza	\$250
Office Chair	\$250
Bookcases	\$150
Filing Cabinets 2 @ \$150	\$300
Printer Table	\$150
Printer	\$750

Phone System

\$1,000

Network Installation Costs

\$1,500

Security System

\$800

Total

\$16,650

Mar: Marketing and Promotion

	Year I	Year II	Year III	Year IV	Year V	Year VI
Trade Promotion						
Web Site		8500	\$0	\$1,000	\$1,000	\$1,000
Development			\$1,000	\$8,000		
Maintenance			\$0			
Video/CD Rom			\$750			750
PowerPoint Presentation	\$750		\$3,500	\$1,500	\$1,500	\$1,500
Brochure	\$3,500		\$5,000	\$1,000	\$2,000	\$2,000
School Visits + Educator Package	\$2,000	\$5,000	\$1,000	\$0	\$5,000	\$1,500
Community Outreach		\$1,000	\$1,500	\$3,000	\$2,500	\$3,000
Trade Fairs Careers Events - Exhibits	\$0	\$1,500				
To train employers and journey person for presentations to schools and community agencies	\$2,000	\$2,000	\$0	\$2,000	\$0	\$2,000
Employer education		\$2,000	\$2,000	\$3,000	\$3,000	\$3,000
Upgrade Training Promotion						
Display for Conventions, etc	\$0		\$4,000	\$1,000	\$1,000	\$1,000
Brochure			\$0	\$0	\$2,000	\$0
Local Meetings			\$0	\$1,000	\$0	\$2,000
Direct Mail			\$0	\$0	\$0	\$0
Other (Retention, Special Initiative)		\$4,000	\$4,000	\$0	\$4,000	\$5,000
Total	\$8,250	\$20,000	\$22,750	\$21,500	\$22,000	\$22,750

This program would be finalized through a marketing/promotion strategy

TAB 5 Employers' Survey

Training Improvement Coordinator

Survey Response

A. Background

1. Province of Residence. Indicate the province where your head or principal office is located (check one only):

14 surveys – 7 from SK, 6 from AB & 1 from MB

2. Province(s) of work. Indicate all the provinces in which your firm works (check all that apply):

- 3a. How many people do you employ during peak season and off-season (use an average of the past three years)?

	#	SK	AB
Peak Season	56	39	90
Off Season	27	15	52

Of these how many are:

Bricklayers	Apprentices		J'persons		Other
	#		#		
Peak Season	6		23		26
SK	4		13		17
AB	10		39		41
Off Season	5		13		13
SK	2		4		8
AB	9		23		20

- 3b. Could you indicate the dollar volume of work your firm does annually?

Mostly larger firms 5 over \$5M and 4 \$1M to \$5M

- 3c. What proportion of your work is in the following sectors?

Residential	8%
Commercial/Institutional	85%
Industrial	7%
Refractory	0%
Total	100%

4a. On average what proportion of tradespersons in your employ have a certificate of qualifications (Provincial certificate)?

(C of Q) Total: 84%
 SK: 74%
 AB: 93%

4b. On average what proportion of tradespersons in your employ have a Red Seal (Inter-provincial certificate)?

 Total: 71%
 SK: 71%
 AB: 66%

Apprenticeship Training:

5. Is formal (in-school) apprenticeship training addressing the industry's needs?

a. In terms of skills? Yes 54% No 46%

SK Mostly No, AB mostly Yes

b. In terms of the number of apprentices and certified workers entering the workforce force? Yes 25% No 75%

6. What are the strengths/positive aspects of current training delivery (check all that apply)?

	Yes	No	Don't Know
1. Responsive to industry's skills requirements/requests	54	46	SK/AB opposite
2. In-school training day hours are similar to job-site hours	46	54	
3. Assesses students before progression to next level	75	25	
Provides exposure to a breadth of skills			
i. 4. theory	60	40	
ii. 5. hands-on	80	20	
6. Up to date equipment and facilities	91	9	
7. Effective training materials	75	25	
8. Distance/Satellite Training available	25	75	
9. Relevance of in-school training to skills required on the job	64	36	
10. Communication with industry around scheduling, changes to program, etc.	50	50	
Other (specify):			

7. What are the weaknesses/negative aspects of current training delivery (check all that apply)?

	Yes	No	Don't Know
1. Outdated curriculum	58	42	
2. Lack of connection with industry	50	50	
3. Poor facilities	38	62	Y's from SK
4. Poor equipment	25	75	
5. Not enough hands-on time	46	54	
6. Lack of support for the program	75	25	
7. Location of training	46	54	Mostly SK issue
8. Lack of promotion of the trade	69	31	
9. Other (specify):			
Other (specify):			
Other (specify):			

8. How many apprentices have you employed in the past five years? 12 (19 AB, 7 SK)

9. What role, for the industry (employers), would you support to address any concerns you may have?

	YES	NO
More involvement in Advisory Committees*	100%	_____
Input into the curriculum	100%	_____
Cost sharing partner (with input into program)	85%	15%
Industry driven training delivery (funded by industry and partners)	85%	15%
Other		_____

* participate in trade advisory committees that provide recommendations and feedback on apprenticeship training to the provincial government and training institutions

- 10.a) Do you think that the number of apprentices or journeypersons (bricklayers) is restricted or limited by the training or certification system in your provinces?

Yes 39% No 61%

10.b) Would you hire more certified workers and/or apprentices if they were available (based on the current average workload) over the next three years?

Yes No
83% 17%

How many? Between 2 and 50

10. c) Are there any other factors that limit the number of certified workers?

Poor teaching, lack of promotion, poor retention of apprentices, cost of training

11. Do you think that a larger proportion of the work force should be formally trained and certified?

Yes No
100%

12. Do you think that the training programs, courses and curriculum should be standardized across all western provinces?

Yes No
100%

13. Do you think that common training programs, courses and curriculum across western provinces would help inter-provincial mobility of labour, recruiting workers from other provinces and stabilize the skill competencies of the existing workforce?

Yes No
100%

14. Do you think that national training standards would improve mobility by providing a benchmark for competency in the trade?

Yes No
100%

Skilled Labour Supply

15. What are the skills, if any, that you most often find to be the weakest or in short supply? (check all that apply)

Refractory	23%	Restoration	70%
Seismic reinforced masonry	8%	Rigging	23%
Stone cutting/placing	54%	Planning out a job	39%
Panel stone placement	46%	Ability to mentor	46%
Mixing/applying mortars	8%	Trowel skills	31%
Blueprint reading	46%	Safety	23%
Take off/estimations from drawings	46%	Other _____	_____
Water/Damp proofing	23%	Other _____	_____
Movement joints	15%	Other _____	_____
Wall systems	31%	Other _____	_____

16. Are you aware of any training available in your area to address the skill gaps or labour shortages you have experienced?

Yes No
31% 69%

17.a) Is computer literacy of masonry workers an issue with you?

Yes No
15% 85%

17.b) If yes, in what types of applications?

17.c) Are you aware of computer based training programs for workers?

Yes No
23% **77%**

Training/Upgrading:

18.a) Is there an increasing trend for contractors, individually, to provide more in-house training for journeypersons than they did five years ago? (on-site training either formal, i.e., seminars or informal, i.e., mentoring)

Yes No
85% 15%

18.b) What types of training are offered (i.e., new materials, equipment, problem-solving)?
Equipment, materials, Air/Vapour Barriers, safety, restoration, scaffolding, Jahn mortars, basic tools skills, blueprint reading

19. Is there a need for more formal upgrading and updating of skills (for the current workforce)?

Yes No
92% 8%

20. What are the major barriers for journeypersons to take upgrade training?

AGE - THEY KNOW IT ALL, LACK OF TRAINING, NO FACILITIES IN AREA, NOT WILLING TO TAKE TIME, MONETARY, TIME, TIME VS FINANCIAL REWARD, AVAIL. OF COURSES, COMMITMENT & TIME, COST/TIME, OLD OR STUBBORN

21. In your area, are you familiar with the availability of worker upgrade programs?

College based: Yes No
27% 73%

Industry based: Yes No
33% 67%

22. What types of courses would address your skill requirements?

Blueprint reading	77%
Mortar mixing	15%
New Materials (specify)	39%
New procedures (i.e., to meet new standards)	31%
Health and Safety	23%
Computer skills	23%

23. In what format should these courses be delivered?

Classroom	75%
On-site seminars	58%
On-the-job (mentoring)	67%
Computer based (software programs)	33%
Internet based	8%

24. If you have any additional comments about training and certification in the bricklayer trade, please use the space below (or attach a separate page):

Name:	_____
Province:	_____
Organization:	_____

***Thank you for completing this survey.
Please fax responses to Prism Economics and Analysis
at 416-484-4147.***

TAB 6

Apprentice Survey

Apprenticeship Survey Results

A. Background

1. Province of Residence. Indicate the province where you are a resident:

<input type="checkbox"/> Alberta – 61%	<input type="checkbox"/> Manitoba – 0%
<input type="checkbox"/> Saskatchewan – 39%	

2. In which province do you attend the in-school portion of your apprenticeship training?

Same as above

3. How much formal in-school training in masonry have you had during or before your apprenticeship? – Answers not consistent

<input type="checkbox"/> No formal in-school training
<input type="checkbox"/> Pre-apprenticeship training
<input type="checkbox"/> If yes, how long? _____ months _____ weeks
<input type="checkbox"/> Certified training as part of a formal apprenticeship program

If yes, what level? basic intermediate advanced

If you completed your formal apprenticeship enter date of completion: _____

Have you received your certificate of qualifications/Red Seal? : Yes No

4. How many years have you worked in the trade(s)? Average 4 years; Range 1 to 14 years

5. What is your employment status? (check all that apply)

Piece-rate/Unit-rate paid	<input type="checkbox"/> - 7%
Wage-rate paid (hourly or salary)	<input type="checkbox"/> - 93%
Unemployed	<input type="checkbox"/>

(for how long? _____)

6. How did you decide to become a bricklayer apprentice?

Family member in the trade (bricklayers)	<input type="checkbox"/> - 75% through friends or
Know friends in the trades	<input type="checkbox"/> family
Through high school (career counseling)	<input type="checkbox"/> - 0%
Reading promotional information	<input type="checkbox"/> - 10%
Other (please specify)	<input type="checkbox"/> - 15%

7. Have you worked outside your province of residence as a bricklayer in the past three years?

Yes - 35% No - 65%

8. What type of masonry work have you performed? (Check all that apply).

- Refractory –35% Commercial – 65%
- Concrete Block – 77% Residential – 58%
- Brick – 81% Industrial – 32%
- Stone – 65%
- Laying Out – 42%
- Restoration (heritage) – 19%
- Other_____ (specify)

Apprenticeship Training:

9. Is formal (in-school) apprenticeship training addressing your needs:

- a. In terms of skills relevant to on the job expectations?
Yes 65% No 35% Don't Know
- b. Preparing you for examinations (level and Red Seal)
Overall – 58% said YES
Saskatchewan only – 75% said NO

10. Why do you want to become certified (check all that apply)?

- 68% (SK- 50%) More hours of work / steady job
- 84% (SK- 75%) Better work opportunities
- 55% (SK – 25%) Safer worker
- 87% (SK – 75%) Career advancement
- 87% (SK – 75%) More money / job perks
- 61% (SK – 58%) Ease of mobility between provinces
- 87% (SK – 92%) Achieving highest qualifications for the job
- 29% (SK – 25%) Required by employers
- _____ Other (specify)

11. What are the strengths/positive aspects of current training delivery?

Percentage of those that agree with statement	AB	SK	Don't Know
Teaches skills used on the job	95%	67%	
Prepares you for working on-site (i.e., in-school training reflects job site hours)	95%	42%	
Helps find you employment	47%	33%	
Provides exposure to a broad range of skills i. theory	95%	92%	

ii. hands-on	100%	58%	
Up to date equipment and facilities	84%	42%	
	AB	SK	Don't Know
Effective training materials	84%	58%	
Distance/Satellite Training available	10%	8%	
Instructor availability to help you with any problems	95%	75%	
Other (specify):			
Other (specify):			
Other (specify):			

12. What are the weaknesses/negative aspects of current training delivery?

Percentage of those that agree with statement	AB	SK	Don't Know
Outdated curriculum (skills not used on the job)	21%	67%	
Lack of connection with industry	16%	50%	
Poor facilities	0%	33%	
Poor equipment	0%	25%	
Not enough hands-on time	16%	58%	
Lack of financial support for the program	47%	42%	
Location of training	16%	50%	
Lack of communication with apprentices (i.e., not enough notice of next in-takes, etc.)	16%	50%	
Other (specify):			
Other (specify):			
Other (specify):			

13. What do you think would improve the training program:

More involvement by employers	50%
Better training materials	30%
Better preparation for on-site conditions	43%
More "hands-on" time	43%
Other _____	_____
Other _____	_____

14. Do you get any formal mentoring or job coaching on the job?

87% Yes 13% No

15. Are you exposed to a variety of tasks on the job?

100% Yes No

16. Is there any assessment process in place to evaluate your skills between levels of your apprenticeship? (For example when you come off the tools between the basic and intermediate levels of your apprenticeship are you assessed on the skills you have acquired on the job).

48% Yes No

17. Do you think that more bricklayers should be formally trained and certified?

97% Yes No

18. Do you think that the training programs, courses and curriculum should be standardized across all western provinces?

97% Yes No

19.a) Have you received any training through computer based programs?

20% Yes No

19.b) If yes, in what types of training?

19. Would you like to see different delivery formats available for apprenticeship training?

65% Yes No

Which formats do you prefer? (rank the following with the most preferred being 1, second preference 2, etc.)

Classroom	16% - 1 st , 30% - 2 nd , 30% - 3 rd
On-site seminars	26% - 1 st , 19% - 2 nd , 29% - 3 rd
On-the-job (mentoring)	45% - 1 st , 32% - 2 nd , 3% - 3 rd
Computer based (software programs)	under 3% for all mentions
Internet based	same as above.
Other (please identify)	

20. If you have any additional comments about training and certification in the bricklayer trade, please use the space below (or attach a separate page):

TAB 7

Background for On the Job Training Project

- i Saskatchewan Model
- ii National Model



er
ock, brick, precut stone
repair structures

ents:
including:
sessions at SIAST Palliser

apprentice ratio
1:1

Apprenticeship & Trade Certification Commission

2140 Hamilton St
Regina SK S4P 2E3

Tel: (306) 787-2444
Fax: (306) 787-5105

Toll Free: 1-877-363-0536

District Offices

Estevan	(306) 637-4930
La Ronge	(306) 425-4385
Moose Jaw	(306) 694-3735
North Battleford	(306) 446-7409
Prince Albert	(306) 953-2632
Saskatoon	(306) 933-8476
Swift Current	(306) 778-8945
Yorkton	(306) 786-1394



Saskatchewan
Apprenticeship and
Trade Certification
Commission

The information contained serves as a guide for employers and apprentices. Apprenticeship is beneficial to both employer and apprentice. Apprenticeship is an employer's investment in the future. Apprenticeship results in skilled and certified workers.

The pamphlet summarizes the apprenticeship process covered by the apprenticeship act. A portion of apprenticeship training is provided by the employer.

An apprentice spends approximately 80% of their apprenticeship term training in the workplace and 20% in a classroom.

It is the employer's or joint employer's responsibility to ensure that the apprentice's practical skills training is of a satisfactory level of proficiency by the end of their apprenticeship term.

EMPLOYER TRAINING RESPONSIBILITIES

- introduce the apprentice to the trade
- practice in approved areas
- provide guided, hands-on experience in the trade
- masonry trade
- where possible, expose the apprentice to new technology in the trade.

Apprenticeship Training

Bricklayer

On-the-Job Training Guide

make every effort to expose their experience in as many areas of e.

ool apprentice instruction is

an employer can use to assist sted next.

ding and Sketching

nal and detail drawings

version to imperial system c and isometric drawings

ist the apprentice to achieve these

evant information on a drawing can directions, wall identification, work

it tools r tools

ist the apprentice to achieve these

proper personal protective

e proper use and care of common as trowels, levels, hammers chisels,

e safe use and care of power tools angle grinders, mixers, etc.

kers softeners ties and hooks alizer beams

The employer can assist the apprentice to achieve these objectives by:

- identifying good practice and proper use when using rigging gear, including chokers, slings, spreaders
- ensuring the knowledge of proper hand signals

Masonry Units

Development, classification and manufacture of masonry materials

Material properties, characteristics, sizes and shapes

The employer can assist the apprentice to achieve these objectives by:

- relaying information regarding the proper storage and care of cements and other materials and the location of lay-down area
- explaining the purpose of the care of materials
- familiarization with all types of units used in the trade

Mortars

Mortar properties, types, proportions and uses

Mixing, spreading and buttering techniques

Joint types and finishes

Building codes

The employer can assist the apprentice to achieve these objectives by:

- familiarization with types of mortars and their composition
- demonstrating proper mortar mixing techniques
- ensuring apprentices obtain quality tool time and proper mentorship

Walls

Cavity solid, reinforced and veneer masonry wall

systems Design, layout and construction of wall systems

Building code requirements

The employer can assist the apprentice to achieve these objectives by:

- relaying the purpose of the different wall systems, ie tie system, core filling, flashing, insulation, etc.

Miscellaneous Masonry

Piers, pilasters

Architectural design

Construction of bond beams and lintels Maintenance and cleaning

Air/vapour barriers and insulation

The employer can assist the apprentice to achieve these objectives by:

- relaying the purpose of the different architectural and structural design
- showing the proper use and application of cleaning products, ie detergents, pressure washers etc.
- showing the proper application and placement of air/vapour barriers and insulation

Powder Actuated Tools

Low velocity and high velocity tool uses, application, maintenance and safety

The employer can assist the apprentice to achieve this objective by:

- ensuring proper use and maintenance of powder actuated tools

Mathematics

Basic mathematics for masons

Angular, length, area and volume measurement (metric, conversion to imperial)

The employer can assist the apprentice to achieve these objectives by:

- instruction in the use of a measuring tape
- explaining basic estimating

Level Two

Blueprint Reading and Sketching

Specifications, symbols and applications

Residential drawings, views, blueprints

Metric system

Trade drawing and sketching

Layout

The employer can assist the apprentice to achieve these objectives by:

- ensuring that relevant information specifications can be interpreted plan, key, structural vs architectural

Chimney and Flue Construction

Chimney classification

Design and construction details

Building code requirements

The employer can assist the apprentice objectives by:

- introducing chimney and flue construction proper design

Fireplace Construction

Types of fireplaces, design, external construction

Building code requirements

The employer can assist the apprentice objectives by:

- ensuring the understanding of fire requirements when building fire

Refractories

Theory of refractory brick, including castable refractory panels

The employer can assist the apprentice objective by:

- explaining the function and purpose of work and materials
- explaining the safe use of equipment
- illustrating basic installation procedures

Arches

Arch terminology and geometry

Types, design and layout procedures

The employer can assist the apprentice objectives by:

- explaining arch type, purpose and construction
- familiarization with basic, simple construction

- understanding paver placement in terms of ground compaction, drainage and bonds
- understanding the basic principles and purpose of insulation, parging and caulking
- proper care and storage of masonry materials under cold conditions

Level Three

Blueprint Reading and Sketching
 Elevations and plot plans
 Residential and commercial drawings
 Commercial blueprint specifications and construction schedules
 Sketching and drafting

The employer can assist the apprentice to achieve these objectives by:

- supervising the apprentice's reading of plans and layout of the project

Fireplace Construction

Building a complete fireplace

The employer can assist the apprentice to achieve these objectives by:

- building a complete fireplace

Miscellaneous Masonry

Decorative work
 Shoring and bracing of walls
 Concrete practices
 Setting Tyndal stone
 Overlay work

The employer can assist the apprentice to achieve these objectives by:

- explaining the proper placement of shoring and bracing
- explaining concrete pouring practice and systems
- training in the different methods of, and reasons for, setting Tyndal stone
- explaining proper work procedures in doing overlay work

Maintenance and Repair

Cleaning masonry products
 Re-pointing and re-jointing existing masonry

The employer can assist the apprentice to achieve these objectives by:

- relaying knowledge of cleaning products
- explaining proper and safe use of tools
- explaining types of mortars and colour matching of mortars

Advanced Bricklaying Techniques

Building layout details
 Layout of the storey pole
 Procedures, quantity survey (material take-off), planning and running a job

The employer can assist the apprentice to achieve these objectives by:

- ensuring exposure to the basic use of the storey pole
- discussing public relations
- explaining the basics of a well organized work site

Mathematics and Science

Loads, forces, shear, bending compression and tension in structures

The employer can assist the apprentice to achieve this objective by:

- ensuring an understanding of the importance of compliance with structural drawings and building codes because of these forces: shearing, tensile and load forces

materials and placement of reinforced masonry

assist the apprentice to achieve these

exposure to the proper placement of masonry such as rebar size, stirrups,

conform with building codes

selection of stone
 cutting and anchoring dimensional stone
 cutting walls and fireplaces with stone

assist the apprentice to achieve these

identification of materials by type, weight
 proper storage, handling and disposal of materials

Science

estimating, mortar testing

assist the apprentice to achieve this

opportunity to set up bigger work areas
 purpose of mortar tests

masonry

construction
 overlay, cleaning, pointing and

bulking
 masonry

assist the apprentice to achieve these

usage of materials, ie glass blocks, and
 of surfaces

Note: The content of the components is subject to change without notice.

Consider apprenticeship as an investment in the future of your company and in the future of the workforce.

Ultimately, skilled masons and workers increase your productivity.

Get involved in the masonry training system. Your participation in training helps to ensure the integrity of the trade.

Do you have employees working in the trade for whom you don't have trade certification? Contact your local apprenticeship council for details on how they might be able to help with certification they need.

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The Construction Sector Council (CSC) is a unique national partnership that brings together representatives of labour, business and government. The mandate of the CSC is to identify and undertake initiatives that will address the current and future human resource challenges facing the construction industry in Canada. A primary objective of the CSC is the development of a highly-skilled workforce and a safe workplace environment that contribute to the organizational productivity and individual prosperity of the members of the construction industry.

Like many industries, the construction industry faces a number of human resource challenges. These include the need to accurately forecast labour demand and supply, to increase the mobility of workers, to make the most of new technologies, and to cope with an aging workforce. As a result, the CSC has identified four key priorities:

- Standards and Skills Development
- Labour Market Information
- Technology at Work
- Career Awareness Programs

The development of a Best Practice On-The-Job Training Guide for the Canadian Masonry Trade is just one of the projects that are currently underway in the area of standards and skills development. This guide will provide employers with a clearly defined “blueprint” to ensure that apprentices are receiving the necessary on-the job training that is consistent with the masonry trades apprenticeship program in their province. In addition, the best practices guide will incorporate enhancements that will address the specific skills development needs of four areas of masonry work:

- new homebuilding and renovation
- industrial, commercial and institutional (ICI)
- preservation and restoration of heritage buildings
- refractory and corrosion
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The best practices guide will initially be developed to serve the immediate needs of the masonry industry with a view to being adapted to other construction trades/sectors.

To ensure that the Best Practice On-The-Job Training Guide for the Canadian Masonry Trade meets the needs of the masonry industry, the CSC is undertaking comprehensive investigative research to examine the current training approaches being used in on-the-job masonry apprenticeship training, as well as to identify and comment on the various methods used in monitoring progress with regards to on-the-job training.

The research will gather the viewpoints of apprentices, journeypersons and employers within each of the identified masonry sectors.

Assisting the Construction Sector Council (CSC) in its research is the firm Prism Economics.