Acknowledgements

Bruce Grey Skills Inventory: Present and Future

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The University of Guelph Team is solely responsible for any errors of interpretation or fact with respect to this report.

Executive Summary

The need for timely and accurate labour market information is critical in the development of a healthy and durable labour market. Decisions regarding programming, planning, resource allocation and community development are all based on labour market information that helps to describe prevailing demographic, wage, education and skill levels.

The chief undertaking of this project was to contribute timely and localized labour market information relevant to understanding the existing level of skills in Bruce and Grey counties. This information was gathered with the intention of informing the process of decision making and providing future linkages to assist those decision making bodies responsible for training, education and employer needs in these counties.

The need for this information arises from a labour market consistently in a state of flux. The push for customized and well-timed labour market information came from a number of interested parties allied under the banner of the Bruce Grey Huron Perth Georgian Triangle Training Board.

There were four major components of the project: labour market profile, high school survey, employee survey and employer survey.

Methods

The **labour market profile** was compiled using data from the 1996 and 2001 Statistics Canada Population Census and Census of Agriculture. To illustrate the various population and labour features of the two counties, tables and graphs were prepared from the analysis of Census data. The profile features comparisons between Bruce County and Grey County and the Province of Ontario. Information is also provided at the town/township level where relevant.

The **high school survey** was administered to all thirteen high schools in the region - eleven from the Bluewater District School Board (BDSB) and two from the Bruce-Grey Catholic District School Board (BGCDSB). In consultation with the project Steering Committee the research team selected a paper questionnaire to be mailed out to each high school and administered by teachers as the most effective survey method.

There were a number of information requirements that influenced design of the high school survey instrument. The first was to focus upon the existing skills of the target population so as to gauge the current skill levels of youth. Secondly, respondents' plans for developing their skills through future education were central. The third category was to examine the respondent's expectations regarding a future career, including both the type of employer he or she anticipates working for and the type of occupation they hope to have. A fourth category was to determine the intentions of youth concerning their future place of employment and residence. Finally, it was concluded that basic demographic information must be collected including gender and high school.

In order to achieve statistically significant survey results an appropriate sampling strategy was devised. Based upon the interests of the steering committee, it was decided that the target group should include grade ten, grade eleven, and grade twelve students of all ranges. Cluster sampling was pursued by dividing each population into exhaustive and mutually exclusive groups based upon a set of standard classes that each student must take to complete high school. These clusters were Civics class for grade ten students and English class for grade eleven and twelve students. Weightings were given to each high school to account for the proportional differences among the thirteen high schools.

The **employee survey** was conducted via a telephone interview with the general population of Bruce and Grey counties. Eligibility for the survey was restricted to individuals who met the following criteria: permanent resident of either Bruce or Grey County, were legally permitted to work in Canada, over 16 years of age and not retired.

The main focus of the project was to gather labour market information at the county level for Bruce and Grey. Under guidance from the steering committee, Bruce and Grey were further disaggregated into five distinct sub-regions so that more localized labour market information could be obtained in certain categories. These sub-regions were:

- Bruce In-Land
- Bruce Shoreline
- Bruce Peninsula
- Grey In-Land
- Georgian Bay

Design of the survey instrument was focused on meeting the project terms of reference. Specifically, this meant a concentration on information gathering in three main areas: skills, training and education. These principal areas were then supplemented with information on demographics, mobility and employment history. Secondly, the need to design the instrument in a manner that would allow for comparison with the other two surveys in the project, the high school and employer survey. A final consideration was the need to collect data in a manner that was consistent with the parameters needed for an interactive web tool.

Potential participants for the survey were selected according to a randomized calling strategy. The unit of analysis for the sample was the household. Any participant within the household that met the survey eligibility requirements (outlined above) was asked to participate. This strategy was constructed using a sample frame derived from Census Canada data. Population levels from Census subdivisions were extracted according to the boundaries of the sub-regions defined by the Steering committee. These populations were then adjusted to reflect the labour market participation rate's provided within the Census. A final number was arrived at for the size of the labour market in each sub-region as well as in each county.

The main focus of the **employer survey** was to gather labour market information at the county level for Bruce and Grey. Interest was also expressed by the steering committee to understand in greater detail the labour requirements of the top 100 employers in the two counties.

Design of the employer survey was very similar to the employee survey. Foremost in the design process was an adherence to the information requirements outlined in the project terms of reference. The principal areas of analysis, skills, training and education was supplemented with information on the employer's current workforce, the employer's future skill requirements, and the employer's ability to retain required transferable skills. As well, comparison with the other surveys and meeting the conditions for an interactive web tool were research requisites.

There were two components to the employer's survey. The first component was the surveying of a random sample of employers in Bruce and Grey Counties. These surveys were conducted using a telephone interview. Employers for the survey were selected according to a randomized calling strategy from a comprehensive list of employers provided by the Steering Committee partners, the Bruce Community Futures Corporation and the Saugeen Economic Development Corporation. The second component was the in-person interviewing of the top 100 employers. Three senior researchers conducted personal interviews with employers that were willing to participate in the survey from September to November.

Draft versions of all three surveys were reviewed and approved by the steering committee. Additionally, all surveys underwent a pre-test with sample target groups.

Response Rate and Respondent Profile

A total of 929 surveys were completed for the **high school survey**. The ***response rate*** varied according to grade level as follows: grade 10 – 347 completed surveys with a response rate of 81%, grade 11 – 288 completed surveys with a response rate of 72% and grade 12 – 294 completed surveys with a 76% response rate. The ***respondent profile*** shows an even split between male, 48%, and female, 52%, respondents.

The **employee survey** generated 900 completed surveys. The ***response rate*** after a total of 8,436 phone calls was 21.2%. The ***respondent profile*** shows a more uneven split for gender with 37.5% of respondents male and 62.5% of respondents female.

The **employer survey** finished with 404 surveys completed; 368 with small to medium sized businesses and 36 interviews with the top 100 employers in the region. The ***response rate*** overall was 17.8% with a total of 2,266 phone calls made.

Findings

The **labour market profile** was helpful in articulating a broad picture of the labour market setting for Bruce-Grey:

- Higher proportion of males and females in the 45 years and over age group and a much lower proportion of males and females in the 20-25 and 25-44 year old primary working age group compared to the province.
- A reduced number of young families due to out-migration of the younger members of the work force resulting in a lower representation of the 0-4 age group than the province with implications for future growth in the counties.

- A large retirement age population, given the attraction of retirement residence in the communities near the shores of Lake Huron and Georgian Bay.
- The average family income for Ontario ($73,849) as a whole was considerably higher than county averages in Bruce ($62,972) and Grey ($60,974) in 2001.
- Compared to the province relatively fewer people in Bruce and Grey have completed higher levels of formal education. The percentage of the Ontario population that received a degree from University is almost twice the percentage reported in Bruce and Grey.
- Based on 2001 Location Quotient calculations, the economy of Bruce County is specialized in several industrial sectors including Utilities, Agriculture, and Construction while the economy of Grey County is specialized in Agriculture and Construction.
- Distinct gender differences were identified in fields of study, work force employment sectors and labour market participation.

The body of findings from the **high school survey** point to a number of key areas that warrant attention:

- At each grade Bruce-Grey students report adequate achievement in the core subjects of English, Math and Science.
- High participation rates in technological education courses.
- Much lower rates of enrolment are reported for Business Studies and Computer Studies classes signifying a possible lack of development of corresponding financial, clerical, administrative, and particularly computer skills.
- A high incidence of volunteer activity is reported but at low levels of hours per year.
- One of the clear strengths of Bruce-Grey youth as identified by this survey is their participation in part-time and summer employment, which provides invaluable workplace experience.
- A significantly low number of students reported taking a co-operative education class.
- Survey results reveal consistent differences reported between gender across the three grade levels.
- Males are also less likely to pursue a university education preferring college instead, while females are more equally balanced between university and college with little interest in trade schools.
- A disconcerting trend is revealed by the survey findings of high intended youth out-migration from the region. There are several industry categories where significant differences are reported between those intending to stay or leave, suggesting the need for development in certain industry areas to promote greater youth retention.

Selected findings from the **employee survey** follow:

- Retirement is an influential factor in all of the sub-regions in the next five years with the notable exception of males in Bruce In-Land.

- Compared to provincial averages the number of respondents who speak a language other than English is low.
- In Bruce county 48% of respondents did not participate in any upgrading activities. The figure was markedly lower in Grey county where 66% of respondents engaged in no upgrading of education or training in the last year.
- A distinct difference between male and female underemployment perceptions was found with female respondents in all sub-regions perceiving higher underemployed rates more often than male respondents.
- The large majority of respondents felt either satisfied or very satisfied with their current occupation.
- The *top three skills* assessed by mean responses in both Bruce and Grey are:
    - Verbal
    - Reading
    - Social/interpersonal skills
- Skill areas *cited as weak* in Bruce and Grey were:
    - Computer
    - Math skills
    - Artistic/creative
- Skills that also *could be improved upon* as perceived by respondents were:
    - Written communication
    - Teamwork
    - Organizational skills
- Trends that materialize from the data are relatively *strong correlations* exist *between education and skill levels* for:
    - Reading
    - Written
    - Computer
    - Verbal
    - Mathematics
- Those skills that demonstrate *weaker relationships* between *education and skills levels* are:
    - Social/Interpersonal
    - Organizational
    - Teamwork
- *No relationship* exist between education and skills level for:
    - Mechanical/Physical
    - Artistic/Creative
- *Male respondents* perceived their skills as more advanced in:
    - Teamwork
    - Mathematics
    - Mechanical/Physical
    - Computer Spreadsheets
- *Female respondents* were more apt to find their skills superior in the following categories:
    - Verbal
    - Artistic/Creative

        - Organizational
        - Computer Word Processing
- The ranking of the mean responses for skills in each of the sub-regions produced the following standing:
        - Bruce In-Land
        - Bruce Peninsula
        - Bruce Shoreline
        - Grey In-Land
        - Georgian Bay

This sample of employers in the area yielded a number of findings:

- The divergence between quality of workforce and the availability of the workforce was most marked in the construction, manufacturing and finance industry categories.
- The majority, 83%, of employers indicated they did not have a great deal of difficulty finding employees, while 16% said they did.
- Some employers (18%) thought the school board was very good at providing a qualified workforce. The majority, 60% thought they were providing a good workforce and 10% thought they were providing an average workforce. Only 8% and 4% thought they were poor or very poor at proving a qualified workforce.
- The employers surveyed indicated that they (59%) did not provide employee training past the initial training period.
- There were 23% of employers that thought their business would grow, however when asked about the number of positions that the business would increase by, there were only 81 new positions to be added by businesses across all industries.
- The manufacturing and public administration industries exhibited the greatest expansion of their workforce in the next five years.
- The quality of the workforce was ranked as most important critical success factor in the future for area employers.
- Several of the largest employers in the utilities and manufacturing sectors indicated that their retirement rates could be between 40-50% in the next five years. This could lead to upwards of 1,500 new, highly paid skilled trade positions, which will be available to local residents.
- The *top three most important skills* assessed by responses by employers in all industry sectors are:
        - Customer service (327 employers)
        - Verbal (322 employers)
        - Math (254 employers)
- Employers indicated that the quality and stability was high, however the quantity and availability of the management staff was low. Utilities, agriculture and public administration are examples of industries where this issue was especially problematic.
- The three *most difficult skills to obtain* were:
        - Decision making (265 employers)

  - Customer service (226 employers)
  - Team Work (138 employers)
- Most employers were aware of the mentoring/co-op placement programs offered by the high schools, however many would not participate because of the timing of the program or they did not feel they could offer much in the way of training.

Recommendations

From the above conclusions a set of 11 recommendations has been put together by the project team to move the findings of this report forward. These recommendations seek to bring the project findings to a position whereby they can be integrated into the various decision making arenas.

1. It is recommended that gender be used as a criterion in any type of skills programming. Incorporating gender as a variable in skills training will allow organizations to capitalize on existing gender specific strengths and configure programs to address gender specific weaknesses.

2. It is recommended that local employers establish a management training program across various industries and occupations. Such programs will target area youth in an attempt to establish a pool of potential management talent. Securing talent early in the process, by offering the opportunity for a management position, will allow for the cultivation of local management capacity.

3. It is recommended that local school boards and industry communicate more effectively the range of job opportunities in the area. The survey revealed that a large number of high school students are leaving because of a perceived lack of jobs available locally. However, it needs to be made clear to area youth that the employment rates for youth in the area are as high as in urban areas.

4. It is recommended that community partners prepare the workforce for positions opening in the utility sector. The focus on identifying occupations that are in demand and preparing local employees accordingly (ie – skills and education upgrading, additional occupation specific training) will enable the local workforce to capitalize on these openings. By targeting the industry specifically, the gains will be locally retained.

5. It is recommended that local business organizations and the Bluewater District and Bruce Grey Catholic District School Board seek further dialogue to support partnerships that allow for labour market experience via co-operative placements for high school students. The present discontinuity between school year and business cycle will necessitate alternative forms of co-operative programming. The links between employers and students should also be strengthened by other ventures including classroom visits, career fairs, mentoring, job shadowing and industry tours.

6. It is recommended that increased efforts are made by: A) the training board, B) adult education groups, and C) all learning networks to raise computer skill levels for both high school students and current labour force participants. This can be achieved by augmenting existing

programs in addition to increasing community awareness about existing computer training programs.

7. It is recommended that all three levels of government be mobilized to invest in adult education. The rapid pace of change in the labour market means that continuous learning activities must become a keystone of local labour market interventions. Where such continuous learning should be concentrated is on the set of transferable skills outlined by this report.

8. It is recommended that economic development organizations in their recruiting efforts, accentuate the intangible qualities of living in the Bruce-Grey region. These 'intangibles' were found to be a influential part of an employee's future planning and thus, promotion of such 'quality of life' factors can be a powerful vehicle for attracting talent to the area.

9. It is recommended that there is a harmonization of regional community economic development efforts among government agencies, community future corporations and other economic development agencies. Attempts should be made to reduce overlap in the collection of information so as to reduce the time requirements of local businesses. Moreover, coordination of research and programs encourages more efficient use of resources.

10. It is recommended that interest groups from industry and local training boards explore the possibility of forming partnerships to target those occupations that most frequently are engaged in education and training upgrading activities. The most expedient means of delivery for education and training upgrading programs is through the workplace as this is where many of the existing programs are in place.

11. It is recommended that the training board engage in a promotional campaign to highlight the work and research that they take part in. Promotion of other labour market resources should also be a part of this effort by respective community partners.

Internet Resources

An electronic version of the report can be found online at www.brucegreyskills.com

The companion interactive web tool that is related to the report's findings can also be found online at www.brucegreyskills.com

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The need for timely and accurate labour market information is critical in the development of a healthy and durable labour market. Decisions regarding programming, planning, resource allocation and community development are all based on labour market information that helps to describe prevailing demographic, wage, education and skill levels. The chief undertaking of this project was to contribute timely and localized labour market information relevant to understanding the existing level of skills in Bruce and Grey counties. This information was gathered with the intention of informing the process of decision making and providing future linkages to assist those decision-making bodies responsible for training, education and employer needs in these counties.

Data for this report were derived from four major sources: Statistics Canada databases and three locally administered surveys. Data was first mined from applicable labour market and census databases and organized in a germane and clear format. Next, three original survey instruments were designed and administered to a targeted population in the area. The information from these sources provides the groundwork for the analysis and body of findings that are made in this report.

The need for this information arises from a labour market consistently in a state of flux. The push for customized and well-timed labour market information came from a number of interested parties allied under the banner of the Bruce Grey Huron Perth Georgian Triangle Training Board. Accordingly, a multi-stakeholder process spearheaded by the University of Guelph consulting team and the Training Board and involving community partners led to the establishment of the project's approach and direction.

The report consists of six major sections. Following this introduction, the report begins with an overview of the area's labour market derived from Statistics Canada data, cross-referenced with other secondary sources. Data for the Bruce and Grey area was interpreted to provide a broad socio-economic picture of the region. The information contained within this profile provides a solid foundation for framing the issues in the larger context of the region as a whole.

The third section reports on the results of the high school survey. This survey was administered to students in grade 10 through 12 across the area's two school boards comprising thirteen high schools. The information gathered in this section offers insights into future contributions made by area youth to the local labour market.

A survey conducted from the current working population of the area comprises the fourth section. The survey called for an inventory of the area's current labour pool with respect to skills, education and training. Additionally, local employees were asked to forecast their future employment, mobility and training plans. These two components were used to outline an up-to-date picture of the workforce in Bruce and Grey.

The employer survey is the fifth section. The first part of the survey involved interviews conducted with strategically important local employers. The second phase was a survey

delivered to a random sample of the local businesses. This section of the report involves efforts to enlarge our understanding of the demands both area employers and potential employers would make on the local labour pool.

The report finishes with a synthesis of the project's findings and recommendations on future directions suggested by these findings.

2.0 Labour Market Profile

2.1 Introduction

The purpose of the profile is to provide background information on the general socio-economic conditions in Bruce County and Grey County. The profile compliments research into present and future skills gaps in Bruce and Grey. Understanding the socio-economic context is essential for developing effective economic and human resource development strategies.

The profile was compiled using data from the 1996 and 2001 Statistics Canada Population Census and Census of Agriculture. To illustrate the various population and labour features of the two counties, tables and graphs were prepared from analysis of Census data. The profile features comparisons between Bruce County and Grey County and the Province of Ontario. Information is also provided at the town/township level.

2.1.1 Limitations

As part of the 2001 Census, Statistics Canada replaced the Standard Industrial Classification (SIC) system with the North American Industry Classification System (NAICS). NAICS is an industry classification system developed by the Statistical agencies of Canada, Mexico and the United States. The classification system was created against the background of the North American Free Trade Agreement and was designed to provide common definitions of the industrial structure of the three countries and a common statistical framework to facilitate analysis of the three economies. While NAICS and SIC industry sectors are not directly comparable, selected sectors have been presented in this report to illustrate general trends.

The Census data for labour force in different sectors/industries is linked to the respondents' place of residence, not their place of work. It does not distinguish between people who are commuting to work outside the Counties. Therefore, it cannot be used as an indicator of the industries/sectors operating within the boundaries of Bruce and Grey Counties.

2.2 Bruce County and Grey County Population Profile

2.2.1 Population

In 2001, the population of Bruce and Grey Counties was 63,305 and 89,073 respectively. The majority of the county's population continue to live in rural or small villages, although amalgamation has changed the political landscape for most communities. The following section will explore the population profile of both counties in greater detail.

2.2.1.1 Grey County

Grey County is situated two hours north of Toronto and is bordered by Georgian Bay and Simcoe County to the east, the County of Bruce and the Bruce Peninsula to the west and Wellington and Dufferin Counties to the south. Grey County has a total land area of 4,508 square kilometers and has a population density of 19.8 persons per square kilometer.[1] Approximately 53% of the Grey County population lives in rural areas and 47% lives in urban areas (Table 2.1).[2]

Highway # 6 serves as a major corridor from the south of the county to the key seasonal tourist destination of Bruce Peninsula and Georgian Bay. Four season tourism is available in Grey County with summer recreation at the lake and winter recreation at the ski hills and snowmobiling.

Recent amalgamations have, and continue to be, the cause of reform in some areas within Grey County. On January 1, 2000, 26 towns and townships were reduced to nine larger municipalities, with the City of Owen Sound being the largest urban centre with a 2001 population of 21,431. After a recent amalgamation with the surrounding townships it has become a census agglomeration of 31,583. The next largest centre is the newly amalgamated Township of West Grey, which includes the former town of Durham with a population of 11,741.

Excluding the two cities, the population of Grey County was 51,633 in 2001. Among the townships and towns:

- The highest populations were found in the City of Owen Sound (31,583), Township of West Grey (11,741) and the Township of Meaford (10,381).
- The lowest populations were found in the northern townships of South Bruce (6,063) and the Township of Blue Mountains (6,116), which includes the former town of Thornbury.

[1] The population density for Ontario is 12.5 residents per sq. km. (Statistics Canada, 2001).
[2] As defined by Statistics Canada, Urban Areas have minimum population concentrations of 1,000 and a population density of at least 400 per sq. km. All territory outside urban areas is considered rural. Rural Areas are defined as sparsely populated lands lying outside urban areas. Rural population includes all population living in the rural fringes of census metropolitan areas (CMAs) and census agglomerations (CAs), as well as population living in rural areas outside CMAs and CAs.

Between 1996 and 2001 the population of Grey County increased by 1.7%. In comparison the population for the Province of Ontario increased by 6.1% during the same period. At the township level the greatest rate of increase in population between 1996 and 2001 occurred in Blue Mountains (7.9%), Southgate (7.1%), and Grey Highlands (6.7%). The increase in these areas can be attributed to its attractiveness as a recreation/retirement community, due to its beaches, ski resorts and new developments. There was relatively little in change in the other townships of the county. Table 2.1 shows the distribution of population among the townships of Grey County, for 1996 and 2001.

Table 2.1 Population of Grey County Towns and Townships, 1996-2001

Towns and Townships	Population		Percentage change	Percentage Urban and Rural Population 2001	
	1996	2001	1996 to 2001	Urban	Rural
City of Owen Sound	21,390	21,431	0.2%	100.0%	0.0%
West Grey	11,499	11,741	2.1%	23.1%	76.9%
Meaford	10,497	10,381	-1.1%	43.9%	56.1%
Georgian Bluffs	10,256	10,152	-1.0%	7.2%	92.8%
Grey Highlands	8,620	9,196	6.7%	15.6%	84.4%
Southgate	6,449	6,907	7.1%	28.6%	71.4%
Hanover	6,965	6,869	-1.4%	100.0%	0.0%
Chatsworth	6,278	6,280	0.0%	0.0%	100.0%
Blue Mountains	5,667	6,116	7.9%	30.5%	69.5%
Total Population for Grey County	87,621	89,073	1.7%	46.7%	53.3%

Source: Statistics Canada Population Census, 1996 and 2001.

2.2.1.2 Bruce County

Bruce County has a total land area of 4,155 square kilometres and a population density of 15.4 persons per square kilometre. Approximately 53% of the Bruce County population lives in rural areas and 47% lives in urban areas (Table 2.2). Three major roads run through Bruce County, Highways #9, #21 and #6. Within Bruce County is the Bruce Peninsula, which is bounded by Lake Huron on the west, and Georgian Bay on the east. The County is also home to the Bruce trail, Bruce National Park and is the ferry departure point for travel to Manitoulin Island.

Bruce County has undergone major restructuring stemming from amalgamation in 1998. Twenty-six towns and townships have merged into eight municipalities. The population of major centres in the County shows a wide variation in size, from the highest, Saugeen Shores with a population of 12,084, to the lowest in Northern Bruce Peninsula with 3,599 residents.

Between 1996 and 2001 the population of Bruce County decreased by 2.7%. At the township level the greatest rate of decline in population between 1996 and 2001 occurred in Kincardine (-7.4%) and Saugeen Shores (-5.8%). These townships are the most remote from larger urban areas and are highly dependent on the Bruce Nuclear Power Plant for employment. Table 2.2 shows the distribution of population among the townships of Bruce County, for 1996 and 2001.

Table 2.2 Population of Bruce County Towns and Townships, 1996-2001

Towns and Townships	Population		Percentage change	Percentage Urban and Rural Population 2001	
	1996	2001	1996 to 2001	Urban	Rural
Saugeen Shores	12,084	11,388	-5.8%	86.6%	13.4%
Kincardine	11,908	11,029	-7.4%	55.4%	44.6%
Brockton	10,163	9,658	-5.0%	51.5%	48.5%
South Bruce Peninsula	8,004	8,089	1.1%	29.0%	71.0%
North Bruce Peninsula	3,500	3,599	2.8%	0.0%	100.0%
Arran-Elderslie	6,851	6,577	-4.0%	44.3%	55.7%
Huron-Kinloss	6,284	6,224	-1.0%	24.2%	75.8%
South Bruce	6,248	6,063	-3.0%	37.9%	62.1%
Saugeen R	638	677	6.1%	38.6%	61.4%
Neyaashiinigmiing R	n/a	587	n/a	0.0%	100.0%
Total Population for Bruce County	65,680	63,891	-2.7%	47.4%	52.6%

Source: Statistics Canada Population Census, 1996 and 2001.

It should be noted that the seasonal population in both Bruce County and Grey County could increase as a result of tourism activity.

2.2.1.3 Population Comparisons with other Western Ontario Counties

Of the ten Counties and Regional Municipalities that make up Western Ontario, only Huron, Grey and Bruce have more than 50% of their population living in rural areas (Table 2.3).

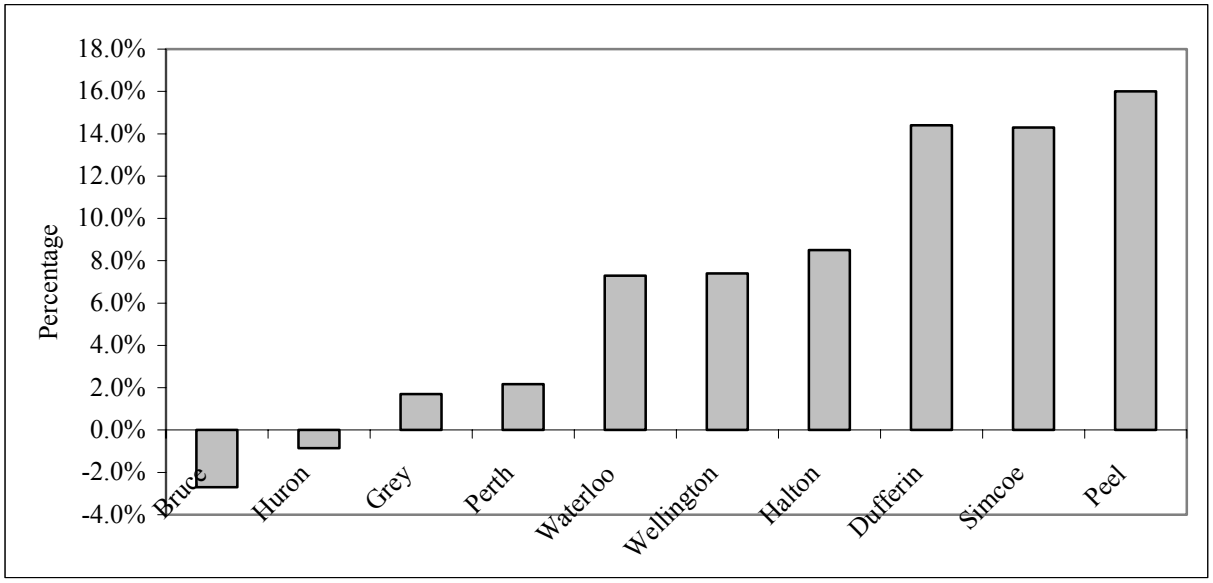
Table 2.3 Western Ontario Counties and Regional Municipalities Ranked by Rural Population

County	Rank by Percentage of Total Population Classified as Rural	Rural Population		Urban Population		Total Population
		Number	%	Number	%	
Huron	1	35,903	60	24,317	40	60,220
Grey	2	47,183	54	40,449	46	87,632
Bruce	3	35,028	53	30,652	47	65,680
Perth	4	26,412	37	45,694	63	72,106
Dufferin	5	16,721	37	28,936	63	45,657
Simcoe	6	109,300	29	267,750	71	377,050
Wellington	7	42,884	25	128,511	75	171,395
Waterloo	8	24,663	7	315,212	93	339,875
Halton	9	28,050	7	377,385	93	405,435
Peel	10	33,434	3	955,514	97	988,948

Source: Statistics Canada, Population Census 2001.

Compared to the other counties and regional municipalities in Western Ontario both Bruce and Huron reported negative growth rates in total population between 1996 and 2001 (Figure 2.1). Grey and Perth also experienced growth rates that were below the provincial average of 6.1%. The other counties and regional municipalities in Western Ontario are within commuting distance of the Greater Toronto Area and more influenced by rapid growth in the area. For example, Dufferin, Simcoe and Peel experienced growth rates that were more than double the provincial average.

Figure 2.1 Percentage Change in Population for Western Ontario Counties and Regional Municipalities, 1996-2001



Source: Statistics Canada, Population Census, 1996 and 2001.

2.2.2 Age and Gender Distribution

As shown in Table 2.4 and 2.5, the age distribution in Grey and Bruce Counties shows a somewhat different pattern than that of the province as a whole:

- In both Grey and Bruce there is a higher proportion of males and females in the 45 years and over age group, than in the province.
- In both Grey and Bruce there is a much lower proportion of males and females in the 20-25 and 25-44 year old age group, than in the province.

Population pyramids presented in Appendix A, B and C illustrates the differences in the distribution of the Bruce and Grey population relative to the province.

This phenomenon may indicate that there is a higher than average out-migration rate in both counties because of limited employment and education opportunities for adults in their 30s and 40s. The age distribution in these counties is also reflected by a reduced number of young families resulting in a lower representation of the 0-4 age group than the province. The implications of which are a potential impact on future growth in the counties.

When compared with Ontario as a whole, the lower than average proportion of 20-24 year olds in the counties may indicate that males and females in this age range have left the area to pursue post-secondary or employment opportunities elsewhere.

Older families may be returning to these counties as indicated by the slightly higher population in the 15-19 age groups; however it appears the youth may not stay in the community when they are able to leave for work or higher education. Also, as expected, this area attracts a large retirement age population, given the attraction of retirement residence in the communities near the shores of Lake Huron and Georgian Bay.

Table 2.4 Male Population Distribution by Age for Grey, Bruce and Ontario, 2001

Age Categories (yrs)	Grey		Bruce		Ontario	
	Number	%	Number	%	Number	%
Total - All persons	43,570	100%	31,570	100%	5,577,055	100%
Age 0-4	2,290	5.3%	1,475	4.7%	343,340	6.2%
Age 5-14	6,040	13.9%	4,510	14.3%	801,355	14.4%
Age 15-19	3,370	7.7%	2,615	8.3%	394,915	7.1%
Age 20-24	2,360	5.4%	1,680	5.3%	359,645	6.4%
Age 25-44	10,555	24.2%	7,180	22.7%	1,724,535	30.9%
Age 45-54	6,680	15.3%	5,110	16.2%	801,540	14.4%
Age 55-64	5,135	11.8%	4,000	12.7%	520,565	9.3%
Age 65-74	4,375	10.0%	3,105	9.8%	383,625	6.9%
Age 75-84	2,225	5.1%	1,545	4.9%	202,265	3.6%
Age 85 and over	540	1.2%	360	1.1%	45,260	0.8%

Source: Statistics Canada, Population Census, 2001.

Table 2.5 Female Population Distribution by Age for Grey, Bruce and Ontario, 2001

Age Categories (yrs)	Grey		Bruce		Ontario	
	Number	%	Number	%	Number	%
Total - All persons	45,505	100%	32,320	100%	5,832,990	100%
Age 0-4	2,180	4.8%	1,415	4.4%	327,905	5.6%
Age 5-14	5,815	12.8%	4,285	13.3%	760,145	13.0%
Age 15-19	3,135	6.9%	2,485	7.7%	374,500	6.4%
Age 20-24	2,135	4.7%	1,530	4.7%	358,775	6.2%
Age 25-44	11,140	24.5%	7,495	23.2%	1,793,480	30.7%
Age 45-54	6,921	15.2%	5,125	15.9%	833,740	14.3%
Age 55-64	5,290	11.6%	3,895	12.1%	543,430	9.3%
Age 65-74	4,525	9.9%	3,220	10.0%	434,545	7.4%
Age 75-84	3,110	6.8%	2,085	6.5%	301,665	5.2%
Age 85 and over	1,260	2.8%	785	2.4%	104,810	1.8%

Source: Statistics Canada, Population Census, 2001.

2.2.3 Ethnic Origin

Table 2.6 shows the number and percentage of the thirty most commonly reported ethnic groups by population in Bruce County and Grey County for 2001. The greatest number of Bruce and Grey residents reported their ethnic origin as Canadian followed by English and Scottish. In Bruce County, the fourth and fifth ranked origins are German and Irish while in Grey County Irish origin ranks fourth followed by German in fifth. These rankings are fairly consistent with the provincial profile. However, in terms of ethnic diversity, Bruce and Grey are less diverse

than the province as whole. Canadian, English, Scottish, Irish and German ethnic origins account for over 80% of the total population base in both Bruce and Grey. In comparison, these five ethnic origins account for 59.3% of the total population base in Ontario.

Table 2.6 Population by Ethnic Origin in Ontario, Bruce County and Grey County, 2001 [a]

Ethnic Origin	Ontario		Bruce		Grey	
	Number	%	Number	%	Number	%
Canadian	3,350,270	18.7%	24,420	21.7%	35,595	22.8%
English	2,711,490	15.1%	19,910	17.7%	32,160	20.6%
Scottish	1,843,110	10.3%	17,760	15.8%	25,675	16.4%
German	965,510	5.4%	15,345	13.6%	15,960	10.2%
Irish	1,761,285	9.8%	15,145	13.5%	21,665	13.9%
French	1,235,760	6.9%	4,890	4.3%	6,010	3.8%
Netherlands	436,030	2.4%	3,490	3.1%	4,920	3.1%
North American Indian	248,940	1.4%	2,325	2.1%	1,655	1.1%
Polish	386,050	2.2%	1,050	0.9%	1,165	0.7%
Welsh	142,740	0.8%	980	0.9%	1,350	0.9%
Italian	781,345	4.4%	940	0.8%	1,170	0.7%
Ukrainian	290,925	1.6%	660	0.6%	1,130	0.7%
American (USA)	86,855	0.5%	480	0.4%	600	0.4%
Swiss	42,200	0.2%	480	0.4%	510	0.3%
Hungarian (Magyar)	128,575	0.7%	390	0.3%	500	0.3%
Métis	60,535	0.3%	315	0.3%	585	0.4%
Norwegian	41,885	0.2%	310	0.3%	300	0.2%
Finnish	64,105	0.4%	290	0.3%	140	0.1%
Swedish	54,540	0.3%	280	0.2%	380	0.2%
Austrian	50,145	0.3%	275	0.2%	300	0.2%
Danish	42,640	0.2%	245	0.2%	380	0.2%
Spanish	103,110	0.6%	240	0.2%	245	0.2%
Russian	106,715	0.6%	220	0.2%	480	0.3%
Chinese	518,555	2.9%	170	0.2%	255	0.2%
Portuguese	248,265	1.4%	170	0.2%	335	0.2%
Belgian	42,585	0.2%	165	0.1%	220	0.1%
Jewish	196,260	1.1%	145	0.1%	175	0.1%
East Indian	413,415	2.3%	125	0.1%	240	0.2%
Romanian	56,410	0.3%	105	0.1%	165	0.1%
Other	1,511,170	8.4%	1,185	1.1%	2,065	1.3%
Total [b]	17,921,420	100.0%	112,505	100.0%	156,330	100.0%

[a] This table shows total response counts for the 30 most frequently reported ethnic origins in the province.

[b] Total responses represent the total sum of all single ethnic origin responses and multiple ethnic origin responses received in the 2001 Population Census. Percentages shown are derived from total response counts from the 30 most frequently reported ethnic origins. Response counts, totals and percentages are skewed due to the combinations of the single and multiple responses. Total indicates the total number of respondents reported in each ethnic origin reported in the 2001 Population Census, either as their only response or in addition to one or more ethnic origins.

2.2.4 Family and Personal Income

2.2.4.1 Family Income

Analysis of family income data in the 2001 Population Census showed considerable variations in the pattern of income distribution between townships in both Bruce and Grey. In Bruce County the average family income was $62,972 with Saugeen Shores reporting the highest average at $74,410 and Saugeen Reserve reporting the lowest average at $26,750. Additional details on the family income profile for individual municipalities in Bruce County are presented in Appendix D.

In Grey County the average family income was $60,974 with Blue Mountains reporting the highest average at $78,966 and Chatsworth reporting the lowest average at $52,175 (Table 2.7). Additional details on the family income profile for individual municipalities in Grey County are presented in Appendix E.

The average family income for Ontario as a whole was considerably higher than the county averages in Bruce and Grey in 2001. The provincial average was reported at $73,849, which is 17.3% and 21.1% higher than the average family income values reported for Bruce and Grey respectively.

Table 2.7 Average Family Income for Bruce County and Grey County Towns and Townships, 2001

Bruce County Town/Township	Average Family Income	Grey County Town/Township	Average Family Income
Saugeen Shores	$74,410	Blue Mountains	$78,966
Kincardine	$68,870	Mea ford	$68,173
Huron-Kinloss	$64,749	Georgian Bluffs	$67,181
South Bruce	$62,389	Grey Highlands	$62,029
Brockton	$62,073	West Grey	$60,349
Arran-Elderslie	$57,960	Hanover	$57,321
Northern Bruce Peninsula	$54,003	Southgate	$54,987
South Bruce Peninsula	$52,004	City of Owen Sound	$53,764
Saugeen 29 R	$26,750	Chatsworth	$52,175
Bruce County	$62,972	Grey County	$60,974
Ontario	$73,849	Ontario	$73,849

Source: Statistics Canada, Population Census, 2001.

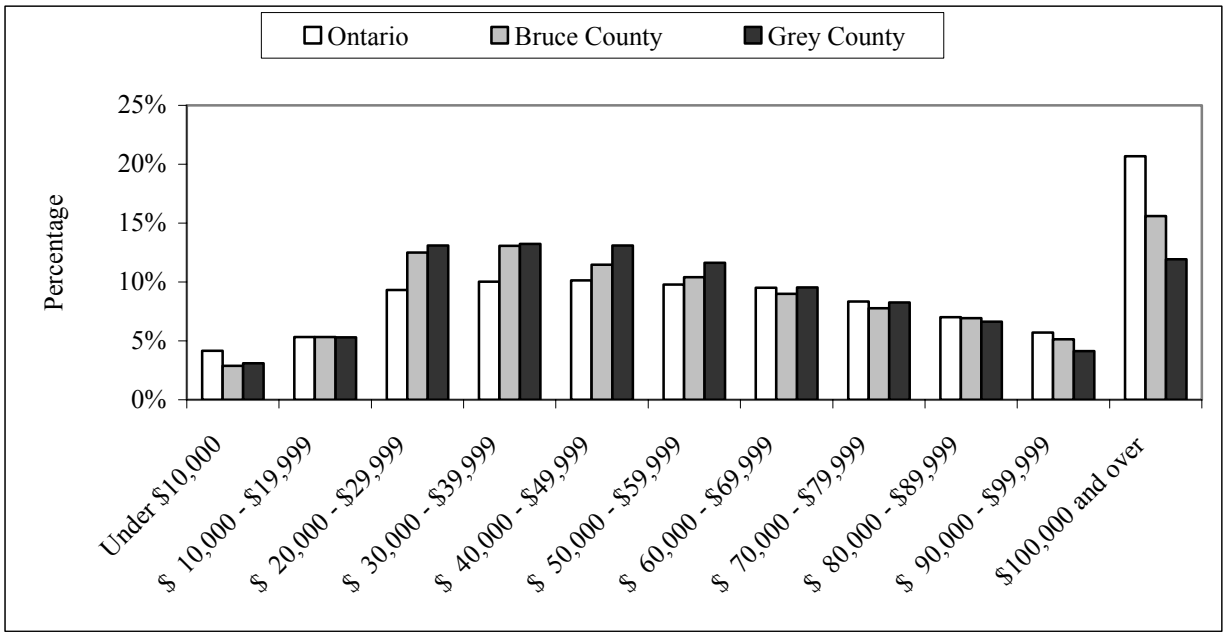
Part of the reason for the higher provincial average is the higher percentage of Ontario families in the larger income categories. As shown in Table 2.8 and Figure 2.2, 15.6% of Bruce County families and 11.9% of Grey County families reported $100,00 or more in family income compared to Ontario as a whole where 20.7% of all families reported $100,00 or more in family income. The other major difference between the province and the two counties was the distribution of families across the $20,000 to $49,999 income range. At the provincial level approximately 29% of all families were reported in this income range compared to 37% of all Bruce County families and 39% of all Grey County families.

Table 2.8 Total Population by Family Income Categories in Bruce County, Grey County and Ontario, 2001

Family Income Category	Ontario		Bruce County		Grey County	
	Number	%	Number	%	Number	%
Total families	3,190,990	100%	18,635	100%	26,200	100%
Under $10,000	132,365	4.1%	535	2.9%	815	3.1%
$ 10,000 - $19,999	169,905	5.3%	990	5.3%	1,390	5.3%
$ 20,000 - $29,999	297,660	9.3%	2,330	12.5%	3,435	13.1%
$ 30,000 - $39,999	319,720	10.0%	2,435	13.1%	3,470	13.2%
$ 40,000 - $49,999	323,630	10.1%	2,135	11.5%	3,435	13.1%
$ 50,000 - $59,999	312,450	9.8%	1,940	10.4%	3,050	11.6%
$ 60,000 - $69,999	303,300	9.5%	1,675	9.0%	2,500	9.5%
$ 70,000 - $79,999	266,025	8.3%	1,450	7.8%	2,165	8.3%
$ 80,000 - $89,999	223,665	7.0%	1,290	6.9%	1,740	6.6%
$ 90,000 - $99,999	182,445	5.7%	955	5.1%	1,080	4.1%
$100,000 and over	659,815	20.7%	2,905	15.6%	3,125	11.9%

Source: Statistics Canada, Population Census, 2001.

Figure 2.2 Total Population by Family Income Categories in Bruce County, Grey County and Ontario, 2001



Source: Statistics Canada, Population Census, 2001.

2.2.4.2 Personal Income

The analysis of personal income data in 2001 shows that Ontario as a whole reported a higher average personal income (male and female combined) compared to Bruce and Grey. The average personal income was $28,097 in Bruce County and $27,228 in Grey County compared to $32,865 for the province.

The analysis of data revealed considerable variations in the pattern of income distribution by gender for Bruce and Grey County. The analysis also revealed that average personal incomes levels for men and women in Bruce and Grey were below the provincial average.

The average personal income for men in 2001 was $35,435 in Bruce County and $32,911 in Grey County. By comparison the provincial average for men was $40,900 which is 15.4% and 24.3% higher than the average personal income reported for Bruce and Grey respectively.

The average personal income for women in 2001 was $20,692 in Bruce County and $21,758 in Grey County. By comparison the provincial average personal income for women was $25,129, which is 21.4% and 15.5% higher than the average personal income reported for Bruce and Grey respectively.

In Bruce County the average personal income for men was 71.2% higher than the average income reported for women in 2001. In Grey County the average personal income for men was 51.2% higher than the average income reported for women in 2001. The difference in average incomes for men and women in Bruce and Grey is consistent with patterns at the provincial level. In Ontario the average personal income for men was 62.8% higher than the average income reported for women in 2001.

As shown in Table 2.9 the largest proportion of the male population in Bruce (18.3%) and Grey (11.3%) Counties are in the highest income level of $60,000 and over. While Bruce County is near the provincial average (18.6%) for this income category, Grey County has relatively fewer men in this category. As well, both Bruce and Grey have relatively fewer men in the $40,000 to $59,999 personal income range compared to the province. However, both counties reported relatively fewer men without income in 2001 compared to the province.

As shown in Table 2.10 the largest proportion of the female population in Bruce (12.3%) and Grey (14.1%) Counties are in the $15,000 to $19,999 income level. Both Bruce County are above the provincial average (9.9%) for this income category. Both Bruce and Grey have relatively fewer women in all of the income categories over $24,999 compared to the province. Correspondingly, both counties have higher proportions of women in most of the lower income categories ($14,999 and under). However, both counties reported relatively fewer women without income in 2001 compared to the province.

Table 2.9 Total Male Population by Personal Income Categories in Bruce County, Grey County and Ontario, 2001

Personal Income Category	Ontario		Bruce County		Grey County	
	Number	%	Number	%	Number	%
Total number of males 15 years of age and over	4,382,150	100%	25,255	100%	34,725	100%
Without income	164,360	3.8%	525	2.1%	965	2.8%
Under $1,000	165,700	3.8%	1,080	4.3%	1,185	3.4%
$ 1,000 - $ 2,999	153,430	3.5%	1,160	4.6%	1,280	3.7%
$ 3,000 - $ 4,999	120,750	2.8%	780	3.1%	1,050	3.0%
$ 5,000 - $ 6,999	123,250	2.8%	745	2.9%	1,135	3.3%
$ 7,000 - $ 9,999	170,095	3.9%	1,170	4.6%	1,510	4.3%
$10,000 - $11,999	148,600	3.4%	900	3.6%	1,530	4.4%
$12,000 - $14,999	194,705	4.4%	1,310	5.2%	1,900	5.5%
$15,000 - $19,999	302,955	6.9%	1,915	7.6%	3,125	9.0%
$20,000 - $24,999	294,290	6.7%	2,050	8.1%	2,995	8.6%
$25,000 - $29,999	285,290	6.5%	1,895	7.5%	2,825	8.1%
$30,000 - $34,999	318,235	7.3%	1,865	7.4%	3,100	8.9%
$35,000 - $39,999	273,505	6.2%	1,575	6.2%	2,555	7.4%
$40,000 - $44,999	277,515	6.3%	1,220	4.8%	2,105	6.1%
$45,000 - $49,999	210,060	4.8%	770	3.0%	1,460	4.2%
$50,000 - $59,999	365,210	8.3%	1,675	6.6%	2,060	5.9%
$60,000 and over	814,195	18.6%	4,625	18.3%	3,940	11.3%

Source: Statistics Canada, Population Census, 2001.

Table 2.10 Total Female Population by Personal Income Categories in Bruce County, Grey County and Ontario, 2001

Personal Income Category	Ontario		Bruce County		Grey County	
	Number	%	Number	%	Number	%
Total number of females 15 years of age and over	4,665,890	100%	25,960	103%	36,575	105%
Without income	285,120	6.1%	1,455	5.8%	1,510	4.3%
Under $1,000	202,960	4.3%	1,170	4.6%	1,350	3.9%
$ 1,000 - $ 2,999	238,420	5.1%	1,500	5.9%	1,630	4.7%
$ 3,000 - $ 4,999	207,020	4.4%	1,275	5.0%	1,660	4.8%
$ 5,000 - $ 6,999	226,635	4.9%	1,570	6.2%	2,165	6.2%
$ 7,000 - $ 9,999	322,515	6.9%	2,410	9.5%	3,015	8.7%
$10,000 - $11,999	219,320	4.7%	1,240	4.9%	1,995	5.7%
$12,000 - $14,999	386,380	8.3%	2,640	10.5%	3,600	10.4%
$15,000 - $19,999	462,945	9.9%	3,105	12.3%	4,905	14.1%
$20,000 - $24,999	374,520	8.0%	2,445	9.7%	3,405	9.8%
$25,000 - $29,999	330,875	7.1%	1,740	6.9%	2,970	8.6%
$30,000 - $34,999	327,070	7.0%	1,260	5.0%	2,740	7.9%
$35,000 - $39,999	244,545	5.2%	980	3.9%	1,375	4.0%
$40,000 - $44,999	195,300	4.2%	785	3.1%	915	2.6%
$45,000 - $49,999	134,880	2.9%	450	1.8%	670	1.9%
$50,000 - $59,999	194,240	4.2%	890	3.5%	1,185	3.4%
$60,000 and over	313,150	6.7%	1,045	4.1%	1,490	4.3%

Source: Statistics Canada, Population Census, 2001.

There is considerable variation in average personal income among the different towns and townships in both Bruce and Grey. In Bruce County average incomes for men range from $45,213 in Saugeen Shores to $13,904 in Saugeen Reserve. In Grey County average incomes for men range from $39,510 in Blue Mountains to $25,677 in Chatsworth (Table 2.11).

In Bruce County average incomes for women range from $22,260 in Saugeen Shores to $12,535 in Saugeen Reserve. In Grey County average incomes for women range from $31,290 in Blue Mountains to $18,638 in Southgate (Table 2.12).

Table 2.11 Average Personal Income for Males for Bruce County and Grey County Towns and Townships, 2001

Bruce County Town/Township	Average Personal Income	Grey County Town/Township	Average Personal Income
Saugeen Shores	$45,213	Blue Mountains	$39,510
Kincardine	$41,359	Meaford	$38,706
Huron-Kinloss	$37,384	Georgian Bluffs	$34,648
Brockton	$31,387	Grey Highlands	$33,479
Northern Bruce Peninsula	$31,134	Hanover	$33,111
South Bruce	$30,234	West Grey	$32,089
Arran-Elderslie	$29,955	City of Owen Sound	$30,131
South Bruce Peninsula	$29,518	Southgate	$30,070
Saugeen 29 R	$13,904	Chatsworth	$25,677
Bruce County	$35,435	Grey County	$32,911
Ontario	$40,900	Ontario	$40,900

Source: Statistics Canada, Population Census, 2001.

Table 2.12 Average Personal Income for Females for Bruce County and Grey County Towns and Townships, 2001

Bruce County Town/Township	Average Personal Income	Grey County Town/Township	Average Personal Income
Saugeen Shores	$22,260	Blue Mountains	$31,290
Brockton	$22,168	Georgian Bluffs	$23,672
South Bruce	$22,048	Meaford	$21,959
Arran-Elderslie	$20,404	Grey Highlands	$21,959
Kincardine	$20,363	West Grey	$21,208
Northern Bruce Peninsula	$19,333	Hanover	$20,763
South Bruce Peninsula	$19,217	City of Owen Sound	$20,463
Huron-Kinloss	$19,149	Chatsworth	$19,512
Saugeen 29 R	$12,535	Southgate	$18,638
Bruce County	$20,692	Grey County	$21,758
Ontario	$25,129	Ontario	$25,129

Source: Statistics Canada, Population Census, 2001.

2.2.5 Education

2.2.5.1 Education Levels

The distribution of the population in Bruce and Grey across different education levels was fairly comparable in 2001. Approximately 10% of the population in both counties have no high school experience and 21% did not graduate from high school. Between 15% to 17% of the population in Bruce and Grey graduated from high school and approximately 13% to 14% have a trades certificate or diploma (Table 2.13).

Approximately 6% of the population in Bruce and Grey attended College but did not receive a certificate while 17% to 18% completed college. Less than 5% of the population in Bruce and Grey attended University without completing a degree while 10% received a degree from University. Details on the education levels for individual municipalities in Bruce and Grey Counties are presented in Appendix F and G.

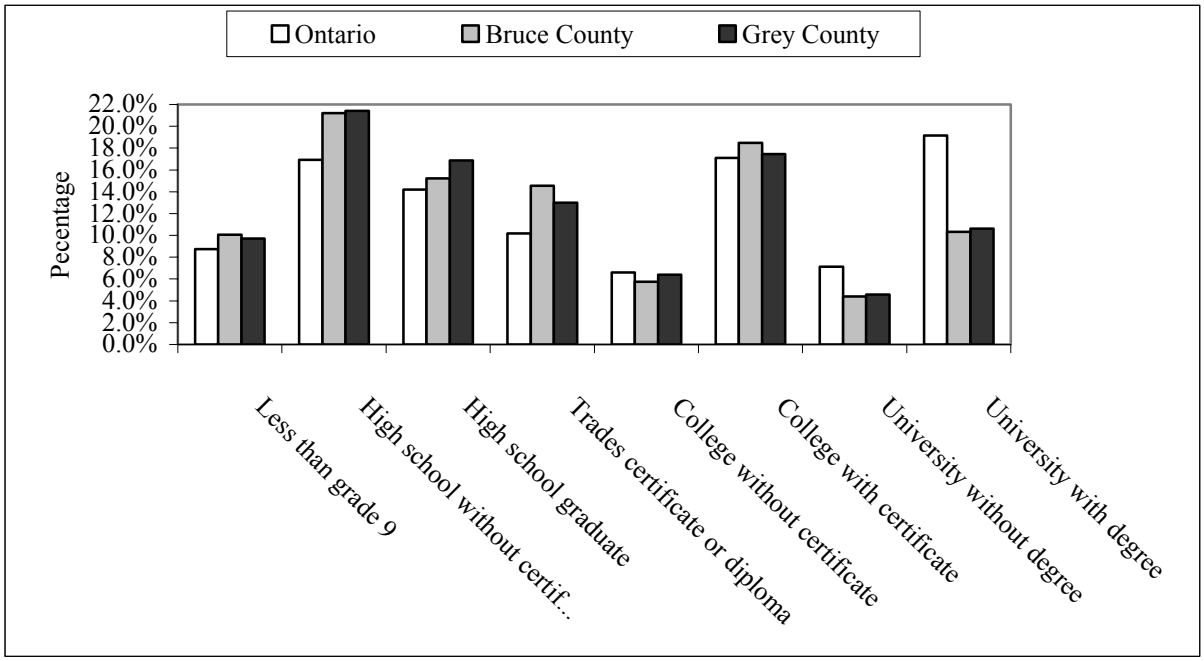
In comparison to the provincial profile, relatively fewer people in Bruce and Grey have completed high levels of formal education. As shown in Table 2.13 and Figure 2.3, the percentage of the Ontario population that received a degree from University (19.2%) is almost twice the percentage reported in Bruce and Grey.

Table 2.13 Population in Bruce County, Grey County and Ontario by Highest Level of Schooling, 2001

Level of Schooling	Ontario		Bruce County		Grey County	
	Number	%	Number	%	Number	%
Total population 20 years and over	8,282,160	100%	46,065	100%	64,855	100%
Less than grade 9	723,360	8.7%	4,640	10.1%	6,290	9.7%
High school without certificate	1,402,505	16.9%	9,765	21.2%	13,895	21.4%
High school graduate	1,174,770	14.2%	7,015	15.2%	10,935	16.9%
Trades certificate or diploma	843,480	10.2%	6,700	14.5%	8,425	13.0%
College without certificate or diploma	545,775	6.6%	2,650	5.8%	4,140	6.4%
College with certificate or diploma	1,415,490	17.1%	8,510	18.5%	11,315	17.4%
University without degree	590,415	7.1%	2,025	4.4%	2,965	4.6%
University with degree	1,586,365	19.2%	4,760	10.3%	6,895	10.6%

Source: Statistics Canada, Population Census, 2001

Figure 2.3 Population in Bruce County, Grey County and Ontario by Highest Level of Schooling, 2001



Source: Statistics Canada, Population Census, 2001.

2.2.5.2 Major Fields of Study for Women and Men

In 2001, the three most common fields of study for women in Bruce and Grey Counties with post-secondary qualifications were:

- Health professions and related technologies (Bruce = 25.2%, Grey = 26.3%)
- Commerce, management and business admin. (Bruce = 23.4%, Grey = 24.8%)
- Educational, recreational, counselling services (Bruce = 16.9%, Grey = 16.8%)

The three least common fields of study for women in Grey and Bruce in 2001 were:

- Engineering and applied sciences (Bruce = 0.6%, Grey = 0.2%)
- Mathematics, computer and physical sciences (Bruce = 1.7%, Grey = 1.3%)
- Applied science technologies and trades (Bruce = 3.5%, Grey = 3.1%)

When compared with the province as a whole, the profile for women in Bruce and Grey revealed several general similarities. For example, women in Ontario, Bruce and Grey shared the top three top ranking fields of study although there were slight variations between each region with respect to the percentage of women in each of the fields (Table 2.14).

Table 2.14 Female Population in Bruce County, Grey County and Ontario by Major Field of Study, 2001

Major Field of Study	Ontario		Bruce County		Grey County	
	Number	%	Number	%	Number	%
Total population of females with postsecondary qualifications	2,028,495	100%	10,015	100%	14,290	100%
Educational, recreational, counselling services	286,045	14.1%	1,695	16.9%	2,400	16.8%
Fine and applied arts	147,590	7.3%	935	9.3%	1,240	8.7%
Humanities and related fields	161,820	8.0%	515	5.1%	810	5.7%
Social sciences and related fields	259,265	12.8%	845	8.4%	1,160	8.1%
Commerce, management and business admin.	526,180	25.9%	2,345	23.4%	3,545	24.8%
Agricultural, biological, nutritional, food sciences	83,635	4.1%	570	5.7%	690	4.8%
Engineering and applied sciences	36,740	1.8%	60	0.6%	35	0.2%
Applied science technologies and trades	95,545	4.7%	355	3.5%	445	3.1%
Health professions and related technologies	364,120	18.0%	2,525	25.2%	3,760	26.3%
Mathematics, computer and physical sciences	63,550	3.1%	170	1.7%	180	1.3%
No specialization	4,010	0.2%	0	0.0%	25	0.2%

Source: Statistics Canada, Population Census, 2001.

For men with post-secondary qualifications in Grey and Bruce, the pattern is quite different from that of their female counterparts. The three most common fields of study for men in Bruce and Grey Counties in 2001 were:

- Applied science technologies and trades (Bruce = 50.6%, Grey = 45.7%)
- Commerce, management and business admin. (Bruce = 10.4%, Grey = 12.4%)
- Agricultural, biological, nutritional, food sciences (Bruce = 7.8%, Grey = 7.4%)

The least common fields of study for men in Grey and Bruce in 2001 were:

- Fine and applied arts (Bruce = 2.1%, Grey = 4.2%)
- Mathematics, computer and physical sciences (Bruce = 3.1%, Grey = 1.6%)
- Health professions and related technologies (Bruce = 3.2%, Grey = 4.4%)

Compared to the province as a whole, there is a much larger percentage of men in Bruce and Grey Counties with Applied science technologies and trades as their major field of study (Table 2.15). Also of note is the higher percentage of men in Bruce and Grey who reported Agricultural, biological, nutritional, food sciences as their major field of study – at almost twice the provincial level.

Table 2.15 Male Population in Bruce County, Grey County and Ontario by Major Field of Study, 2001

Major Field of Study	Ontario		Bruce County		Grey County	
	Number	%	Number	%	Number	%
Total population of males with postsecondary qualifications	2,016,225	100%	10,725	100%	13,515	100%
Educational, recreational, counselling services	93,775	4.7%	570	5.3%	820	6.1%
Fine and applied arts	70,320	3.5%	230	2.1%	565	4.2%
Humanities and related fields	111,145	5.5%	365	3.4%	675	5.0%
Social sciences and related fields	210,330	10.4%	690	6.4%	1,250	9.2%
Commerce, management and business admin.	339,550	16.8%	1,120	10.4%	1,680	12.4%
Agricultural, biological, nutritional, food sciences	81,990	4.1%	840	7.8%	1,000	7.4%
Engineering and applied sciences	192,495	9.5%	800	7.5%	525	3.9%
Applied science technologies and trades	714,185	35.4%	5,425	50.6%	6,180	45.7%
Health professions and related technologies	82,995	4.1%	345	3.2%	590	4.4%
Mathematics, computer and physical sciences	116,170	5.8%	335	3.1%	220	1.6%
No specialization	3,270	0.2%	0	0.0%	10	0.1%

Source: Statistics Canada, Population Census, 2001.

Relative to other fields of study, the proportion of men and women in agricultural/biological science would appear to be relatively small. However, this only indicates that there are relatively few men and women who have studied in areas directly related to on-farm goods producing agricultural work, while there are other areas of study that are relevant to agriculturally related employment. Moreover, recent studies in other regions of the province have shown that many employment opportunities related to agriculture are actually in non-farm agricultural occupations including financial services, legal services, manufacturing, transportation, etc.

Details on the major field of study for men and women for individual municipalities in Bruce and Grey Counties are presented in Appendix H, I, J and K.

2.3 Bruce County and Grey County Labour Profile

2.3.1 Labour Force Participation

The overall labour force participation rates[3] for males and females in Grey and Bruce Counties is lower than the participation rates for the province. As shown in Table 2.16, Bruce County had a slightly higher participation rate (64.4%) than Grey County (63.7%), however both counties had a lower participation rate on average than Ontario (67.3%). When examined by different age categories, the two counties had a higher participation rate than the province in the 15-24 yrs. age group and a lower participation rate in the 25 yrs. and over age group (Table 2.16).

Table 2.16 Employment Participation Rates for the Total Population in Bruce County, Grey County and Ontario, 2001

		Age Category	
	All ages 15 yrs. and over	**15-24 yrs.**	**25 yrs. and over**
Bruce County	64.4%	73.7%	62.6%
Grey County	63.7%	68.9%	63.1%
Ontario	67.3%	66.4%	67.4%

Source: Statistics Canada, Population Census, 2001.

There is considerable variation in participation rates among the different towns and townships in both Bruce and Grey. In Bruce County the participation rate ranges from 53.8% in Northern Bruce Peninsula to 74.2% in South Bruce. In Grey County the participation rate ranges from 58.8% in Blue Mountains to 69.1% in Southgate (Table 2.17).

Table 2.17 Employment Participation Rates for Bruce County and Grey County Towns and Townships, 2001

Bruce County Town/Township	**Participation Rate**	**Grey County Town/Township**	**Participation Rate**
South Bruce	74.2%	Southgate	69.1%
Brockton	70.2%	West Grey	68.6%
Arran-Elderslie	67.2%	Georgian Bluffs	68.3%
Kincardine	64.6%	Chatsworth	65.9%
Saugeen Shores	63.4%	Hanover	63.6%
Huron-Kinloss	63.1%	Grey Highlands	62.9%
Saugeen 29 R	60.8%	Meaford	62.8%
South Bruce Peninsula	56.1%	City of Owen Sound	59.8%
Northern Bruce Peninsula	53.8%	Blue Mountains	58.8%
Bruce County	64.4%	Grey County	63.7%
Ontario	67.3%	Ontario	67.3%

Source: Statistics Canada, Population Census, 2001.

When examined by gender, males 15 years and over in Bruce and Grey Counties had participation rates of 70.9% and 69.5% respectively, approximately 3% lower than the provincial

[3] The Labour Force Participation Rate is the percentage of the total population in a particular age group who are employed or looking for work.

average of 73.4%. Female participation rates in Bruce (58%) and Grey (58.7%) were also slightly lower than the provincial average (61%).

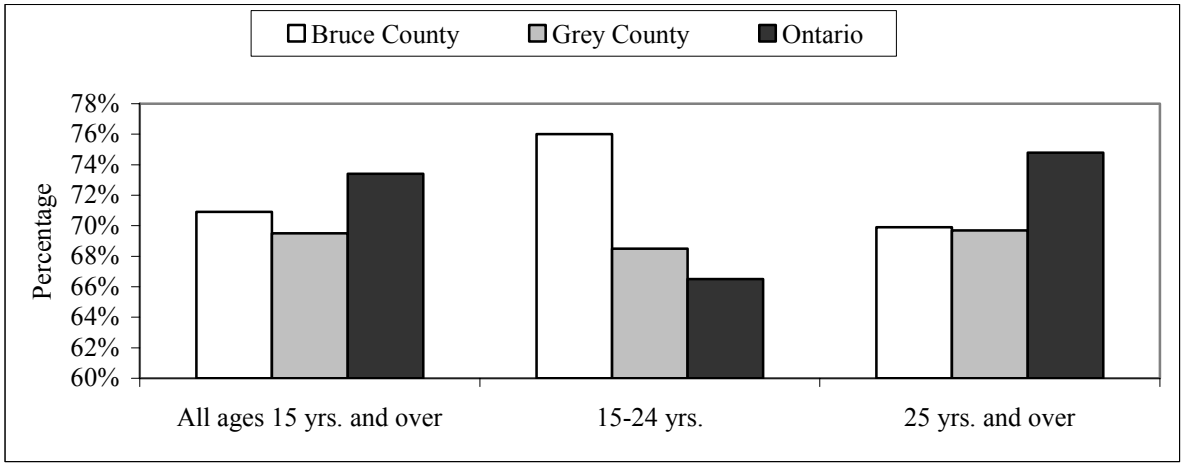
When we look at the rates for *different age and gender groups*, we find some interesting differences:

- Males 15 to 24 years of age in Bruce County have a *higher* participation rate than males 25 years and over. In contrast males 25 years and over in Ontario have a higher participation rate.
- Females 15 to 24 years of age in Bruce and Grey have a *higher* participation rate than women 25 years and over. This pattern is comparable with the provincial profile.
- Males 15 to 24 years of age in Bruce County (76%) have a *slightly higher* participation rate than females 15 to 24 years of age (71%). In Grey County the difference in participation rates for men (68.5%) and women (69.3%) in this age group is very minimal. At the provincial level there was virtually no difference between men and women in participation rates in this age category (66%).
- Males 25 years and over have *much higher* participation rates (about 15% higher) than women 25 years and over in both Bruce and Grey Counties. This pattern is comparable with the provincial profile.

For males, the higher participation rates in the younger age group may reflect more job availability for younger, unskilled labour than for more experienced labour found in the men 25 and over. For females, the relatively low participation rates in the higher age groups reflects the limitations on women's participation in the labour force when they have children at home (which is less likely to be the case when women are 15 to 24 years old than in the 25 and over years).

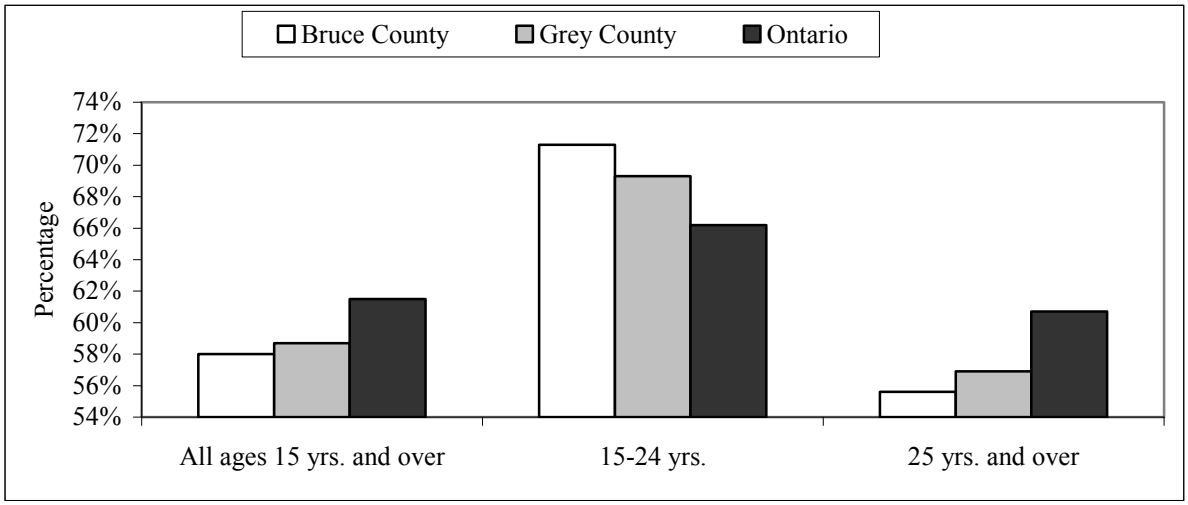
Participation rates by age and gender are found in Figure 2.4 and Figure 2.5.

Figure 2.4 Employment Participation Rates for Men in Bruce County, Grey County and Ontario, 2001



Source: Statistics Canada, Population Census, 2001.

Figure 2.5 Employment Participation Rates for Women in Bruce County, Grey County and Ontario, 2001



Source: Statistics Canada, Population Census, 2001.

2.3.2 Employment to Population Ratios

As shown in Table 2.18, the employment-to-population ratios[4] in Bruce (61.5%) and Grey (60.5%) Counties are fairly similar to the provincial average (63.2%).

When examined by different age categories, the two counties had a higher employment rate than the province in the 15-24 yrs. age group and a lower employment rate in the 25 yrs. and over age group (Table 2.18).

Table 2.18 Employment to Population Ratios for the Total Population in Bruce County, Grey County and Ontario, 2001

	Age Category		
	All ages 15 yrs. and over	**15-24 yrs.**	**25 yrs. and over**
Bruce County	61.5%	65.7%	60.7%
Grey County	60.5%	60.4%	60.6%
Ontario	63.2%	57.8%	64.2%

Source: Statistics Canada, Population Census, 2001.

There is considerable variation in the employment to population ratios among the different towns and townships in both Bruce and Grey. In Bruce County the employment rate ranges from 51.1% in Northern Bruce Peninsula to 72.8% in South Bruce. In Grey County the employment rate ranges from 56.3% in Blue Mountains to 64.9% in Southgate (Table 2.19).

[4] The Employment to Population Ratio is the percentage of the total population in a particular age group who are actually employed.

Table 2.19 Employment to Population Ratios for Bruce County and Grey County Towns and Townships, 2001

Bruce County Town/Township	Employment Rate	Grey County Town/Township	Employment Rate
South Bruce	72.8%	Southgate	64.9%
Brockton	67.0%	West Grey	65.8%
Arran-Elderslie	63.6%	Georgian Bluffs	64.9%
Kincardine	64.6%	Chatsworth	63.0%
Saugeen Shores	60.7%	Hanover	61.7%
Huron-Kinloss	61.3%	Grey Highlands	60.0%
Saugeen 29 R	48.5%	Meaford	60.0%
South Bruce Peninsula	53.7%	City of Owen Sound	54.8%
Northern Bruce Peninsula	51.1%	Blue Mountains	56.3%
Bruce County	61.5%	Grey County	60.5%
Ontario	63.2%	Ontario	63.2%

Source: Statistics Canada, Population Census, 2001.

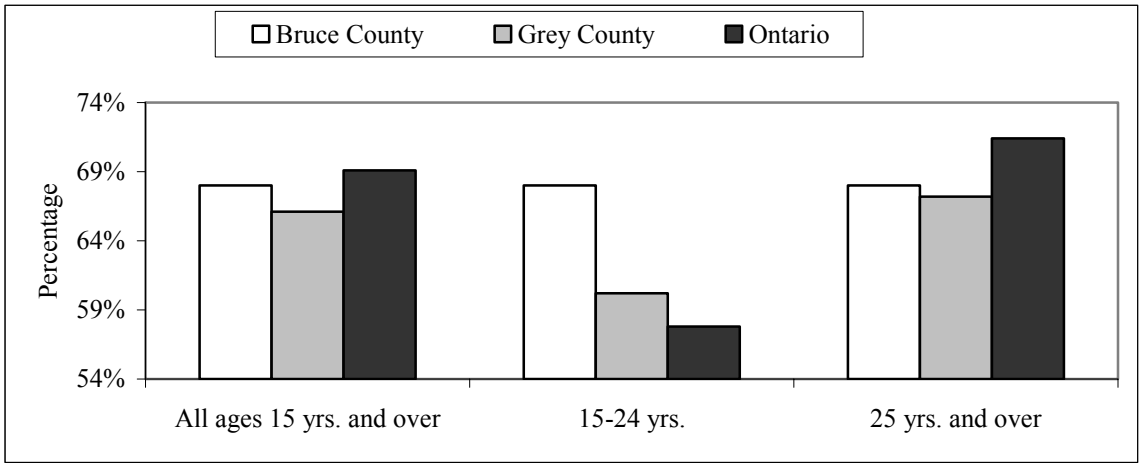
When examined by gender, males 15 years and over in Bruce and Grey Counties had employment rates of 68% and 66.1% respectively, slightly lower than the provincial average of 69.1%. Female employment rates in Bruce (55.2%) and Grey (55.3%) were also slightly lower than the provincial average (57.6%).

When we look at the rates for *different age and gender groups*, we find some interesting differences:

- The employment rate for males 15 to 24 years and males 25 years and over is very similar in Bruce County. In contrast, the employment rate for males 15 to 24 years of age in Grey County is *lower* than the rate for males 25 years and over which is similar to the provincial pattern.
- Females 15 to 24 years of age in Bruce and Grey have a *higher* employment rate than women 25 years and over. This pattern is comparable with the provincial profile.
- Males 15 to 24 years of age in Bruce County (68%) have a *slightly higher* employment rate than females 15 to 24 years of age (63%). In Grey County the difference in participation rates for men (60.2%) and women (60.5%) in this age group is very minimal. At the provincial level there was no difference between men and women in employment rates in this age category (57.8%).
- Males 25 years and over have *much higher* employment rates (about 14% higher) than women 25 years and over in both Bruce and Grey Counties. This pattern is comparable with the provincial profile.

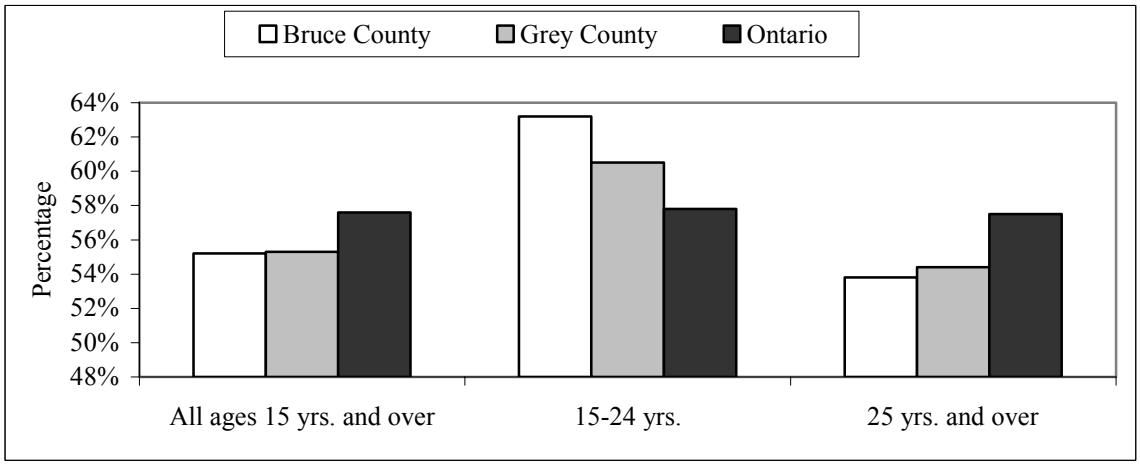
Employment rates by age and gender are found in Figure 2.6 and Figure 2.7.

Figure 2.6 Employment to Population Ratios for Men in Bruce County, Grey County and Ontario, 2001



Source: Statistics Canada, Population Census, 2001.

Figure 2.7 Employment to Population Ratios for Women in Bruce County, Grey County and Ontario, 2001



Source: Statistics Canada, Population Census, 2001.

2.3.3 Unemployment

As shown in Table 2.20, the unemployment rates in Bruce (4.4%) and Grey (5.4%) Counties are slightly below the provincial average (6.1%).

When examined by different age categories, the unemployment rate for the 15-24 age group in Bruce, Grey and Ontario is approximately 3 times as high as the rate for the 25 years and over group. However, within these age categories both Bruce and Grey have lower unemployment rates than the province (Table 2.20).

Table 2.20 Unemployment Rates for the Total Population in Bruce County, Grey County and Ontario, 2001

		Age Category	
	All ages 15 yrs. and over	**15-24 yrs.**	**25 yrs. and over**
Bruce County	4.4%	10.9%	2.9%
Grey County	5.4%	12.5%	4.0%
Ontario	6.1%	12.9%	4.8%

Source: Statistics Canada, Population Census, 2001.

There is considerable variation in the unemployment rates among the different towns and townships in both Bruce and Grey. In Bruce County the unemployment rate ranges from 1.9% in South Bruce to 20.3% in Saugeen Reserve. In Grey County the unemployment rate ranges from 3.2% in Hanover to 8.3% in the City of Owen Sound (Table 2.21).

Table 2.21 Unemployment Rates for Bruce County and Grey County Towns and Townships, 2001

Bruce County Town/Township	**Unemployment Rate (%)**	**Grey County Town/Township**	**Unemployment Rate (%)**
South Bruce	1.9	Hanover	3.2
Huron-Kinloss	2.9	West Grey	4.1
South Bruce Peninsula	4.3	Blue Mountains	4.3
Brockton	4.5	Chatsworth	4.4
Saugeen Shores	4.5	Grey Highlands	4.5
Kincardine	4.8	Meaford	4.6
Northern Bruce Peninsula	4.8	Georgian Bluffs	5
Arran-Elderslie	5.4	Southgate	6.1
Saugeen 29 R	20.3	City of Owen Sound	8.3
Bruce County	4.4	Grey County	5.4
Ontario	6.1	Ontario	6.1

Source: Statistics Canada, Population Census, 2001.

When examined by gender, males 15 years and over in Bruce and Grey Counties had unemployment rates of 4.1% and 4.9% respectively, slightly lower than the provincial average of 5.8%. Female unemployment rates in Bruce (4.8%) and Grey (5.9%) were also slightly lower than the provincial average (6.5%).

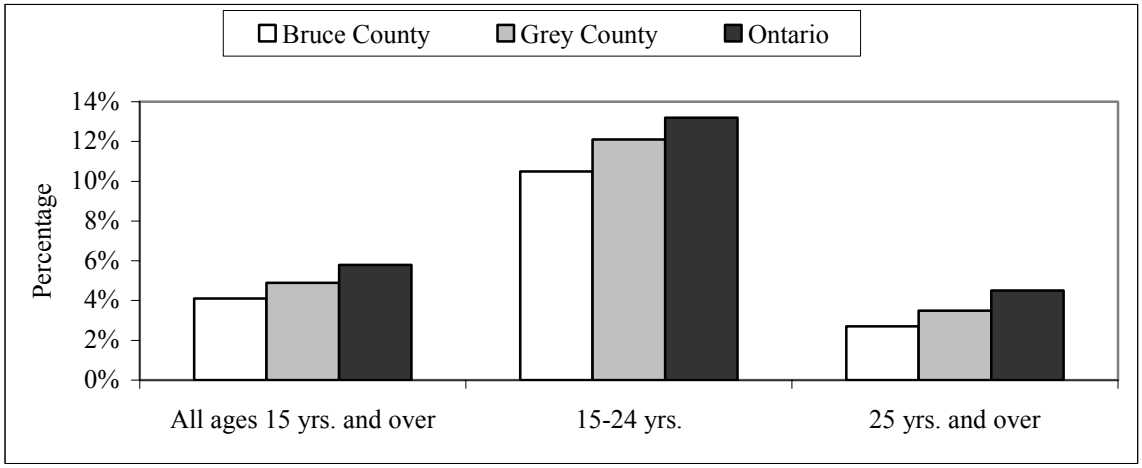
When we look at the rates for *different age and gender groups*, we find some interesting differences:

- The unemployment rate for males 15 to 24 years of age in Bruce and Grey Counties is *much higher* than the rate for males 25 years and over, which is similar to the provincial pattern.
- The unemployment rate for females 15 to 24 years of age in Bruce and Grey Counties is *much higher* than the rate for females 25 years and over, which is similar to the provincial pattern.

- Males 15 to 24 years of age in Bruce and Grey Counties have a *slightly lower* unemployment rate than females 15 to 24 years of age. At the provincial level, women in this age category have a slightly lower unemployment rate than men.
- Males 25 years and over have a *lower* unemployment rate than women 25 years and over in both Bruce and Grey Counties. This pattern is comparable with the provincial profile.

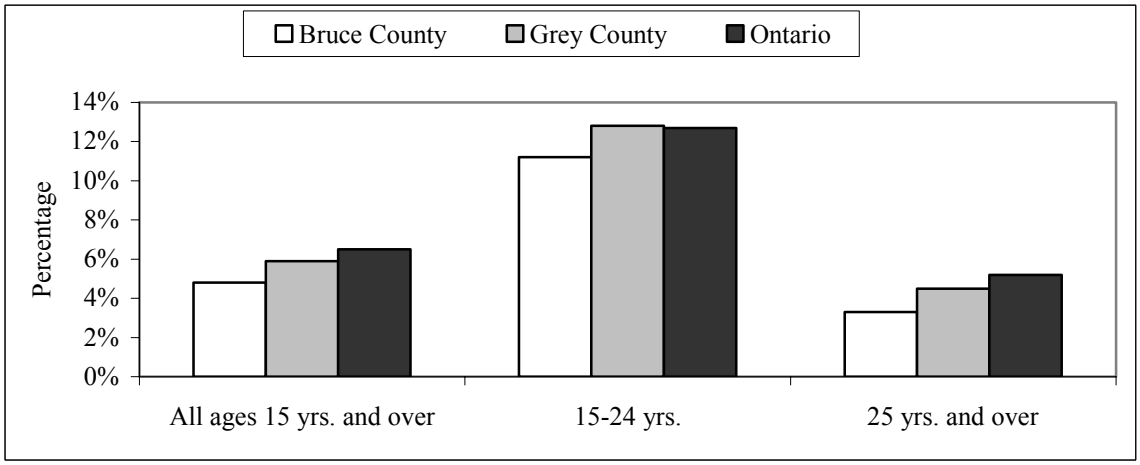
Unemployment rates by age and gender are found in Figure 2.8 and Figure 2.9.

Figure 2.8 Unemployment Rates for Men in Bruce County, Grey County and Ontario, 2001



Source: Statistics Canada, Population Census, 2001.

Figure 2.9 Unemployment Rates for Women in Bruce County, Grey County and Ontario, 2001



Source: Statistics Canada, Population Census, 2001.

2.3.4 Bruce County and Grey County Labour Force Working Outside the County

As shown in Table 2.22 and 2.23, there is considerable variation in the percentage of the labour force, which lives in Grey and Bruce Counties but work outside the Counties.

In Bruce County close to 27% of the male labour force and 22% of the female labour force worked outside the County in 2001. South Bruce Peninsula had the largest out of county male work force (47.3% worked outside Bruce County) and Saugeen Reserve (0%) had the lowest out of county male work force (Table 2.22). South Bruce had the largest out of county female work force (42.5% worked outside Bruce County) and Saugeen Reserve (4.3%) had the lowest out of county female work force (Table 2.23).

In Grey County 29.5% of the male labour force and 19.7% of the female labour force worked outside the County in 2001. Southgate had the largest out of county male work force (69.6% worked outside Grey County) and the City of Owen Sound (11.5%) had the lowest out of county male work force (Table 2.22). Southgate also had the largest out of county female work force (62.9% worked outside Grey County) and the City of Owen Sound (6.8%) had the lowest out of county female work force (Table 2.23).

Table 2.22 Percentage of Male Labour Force Working Outside Bruce County and Grey County by Towns and Townships, 2001

Bruce County Town/Township	Percentage Working Outside the County	Grey County Town/Township	Percentage Working Outside the County
South Bruce Peninsula	47.3%	Southgate	69.6%
South Bruce	45.6%	Blue Mountains	47.1%
Arran-Elderslie	34.1%	Grey Highlands	43.1%
Huron-Kinloss	34.1%	West Grey	34.4%
Brockton	33.2%	Hanover	27.5%
Northern Bruce Peninsula	19.6%	Georgian Bluffs	26.6%
Saugeen Shores	13.2%	Chatsworth	25.8%
Kincardine	12.7%	Meaford	23.0%
Saugeen 29 R	0.0%	City of Owen Sound	11.5%
Bruce County	26.6%	Grey County	29.5%

Source: Statistics Canada, Population Census, 2001.

Table 2.23 Percentage of Female Labour Force Working Outside Bruce County and Grey County by Towns and Townships, 2001

Bruce County Town/Township	Percentage Working Outside the County	Grey County Town/Township	Percentage Working Outside the County
South Bruce	42.5%	Southgate	62.9%
Brockton	33.3%	Blue Mountains	44.7%
South Bruce Peninsula	32.3%	Grey Highlands	29.1%
Arran-Elderslie	30.7%	West Grey	23.6%
Huron-Kinloss	21.1%	Georgian Bluffs	16.1%
Saugeen Shores	11.7%	Hanover	14.5%
Kincardine	7.6%	Chatsworth	13.1%
Northern Bruce Peninsula	5.8%	Meaford	11.2%
Saugeen 29 R	4.3%	City of Owen Sound	6.8%
Bruce County	22.1%	Grey County	19.7%

Source: Statistics Canada, Population Census, 2001.

2.3.5 Employment by Industrial Sector

The North American Industry Classification System (NAICS) is an industry classification system developed by the Statistical agencies of Canada, Mexico and the United States. The classification system was created against the background of the North American Free Trade Agreement and was designed to provide common definitions of the industrial structure of the three countries and a common statistical framework to facilitate analysis of the three economies. The NAICS classification system replaces the Standard Industrial Classification system which was used by Statistics Canada prior to the 2001 Census.

NAICS organizes Canadian industries into distinguishable categories, or classifications. At the greatest level of aggregation these industries are divided into 20 separate categories, and are presented in Table 2.24.

Bruce County reported a total of 32,660 jobs in 2001. Retail Trade was the largest employment sector in Bruce County in 2001 with 3,775 jobs or 11.6% of the total jobs in the County. The other top ranking sectors in Bruce County include Utilities with 3,715 jobs (11.4%), Manufacturing with 3,480 jobs (10.7%), Agriculture with 3,190 jobs (9.8%), and Health Care and Social Assistance services with 3,005 jobs (9.2%).

Grey County reported a total of 45,160 jobs in 2001. Manufacturing was the largest employment sector in Grey County in 2001 with 8,080 jobs or 17.9% of the total jobs in the County. The other top ranking sectors in Grey County include Retail Trade with 5,440 jobs (12%), Health Care and Social Assistance services with 4,980 jobs (11%), Construction with 3,635 jobs (8%), and Agriculture with 3,450 jobs (7.6%).

The top ranking sectors at the provincial level in terms of jobs are Manufacturing (16.4% of the total jobs), Retail Trade (11.2%), Health Care and Social Assistance services (8.9%),

Professional, Scientific and Technical services (7.2%), Accommodation and Food services (6.3%), and Educational services (6.2%).

While the Agriculture sector (1.8%) and the Utilities (0.8%) sector account for a small percentage of the total jobs in Ontario, these two sectors employ a significant percentage of the total population in Bruce and Grey.

Table 2.24 Population by Industrial Sector for Ontario, Bruce County and Grey County, 2001 [a]

NAICS Industrial Sector	Ontario		Bruce County		Grey County	
	Total Jobs	%	Total Jobs	%	Total Jobs	%
All industries	5,992,765	100.0%	32,660	100.0%	45,160	100.0%
Agriculture	110,475	1.8%	3,190	9.8%	3,450	7.6%
Forestry, Fishing and Hunting	13,200	0.2%	145	0.4%	140	0.3%
Mining, oil, gas extraction	21,110	0.4%	165	0.5%	150	0.3%
Utilities	46,230	0.8%	3,715	11.4%	400	0.9%
Construction	332,255	5.5%	2,635	8.1%	3,635	8.0%
Manufacturing	984,330	16.4%	3,480	10.7%	8,080	17.9%
Wholesale trade	278,865	4.7%	795	2.4%	1,445	3.2%
Retail trade	671,865	11.2%	3,775	11.6%	5,440	12.0%
Transportation and warehousing	280,150	4.7%	1,080	3.3%	1,720	3.8%
Information and cultural industries	171,750	2.9%	390	1.2%	835	1.8%
Finance and insurance	292,555	4.9%	635	1.9%	1,070	2.4%
Real estate, rental, leasing	108,890	1.8%	320	1.0%	585	1.3%
Professional, scientific	429,095	7.2%	970	3.0%	1,675	3.7%
Management of companies	7,895	0.1%	0	0.0%	45	0.1%
Administrative and support [b]	257,025	4.3%	1,025	3.1%	1,540	3.4%
Educational services	371,200	6.2%	1,690	5.2%	2,360	5.2%
Health care and social assistance	531,795	8.9%	3,005	9.2%	4,980	11.0%
Arts, entertainment and recreation	121,950	2.0%	440	1.3%	915	2.0%
Accommodation and food services	380,060	6.3%	2,635	8.1%	2,825	6.3%
Other services [c]	273,125	4.6%	1,505	4.6%	2,245	5.0%
Public administration	308,955	5.2%	1,065	3.3%	1,625	3.6%

[a] Employment is linked to place of residence not place of work and refers to a period of at least three months' work in the last year.
[b] Includes waste management and remediation services.
[c] Except public administration.
Source: Statistics Canada, 2001.

A further assessment of industrial specialization in Bruce County and Grey County can be obtained using the Location Quotient. Economic analysts have found the Location Quotient (LQ) to be a useful tool in determining which sectors of the economy are more specialized than others (Bendavid-Val, 1991, p.73). The term 'specialized' in this instance refers to the relative size or presence of an industrial activity. The LQ is essentially a ratio of ratios. In assessing industrial sector specialization, the regional share of a particular industrial sector is compared to the provincial share in the sector. Using the Agriculture sector in Bruce County as an example, the LQ formula for 2001 appears as follows:

$$LQ = \frac{\text{number of agriculture jobs in Bruce}}{\text{total number of jobs in Bruce}} \div \frac{\text{number of agriculture jobs in Ontario}}{\text{total number of jobs in Ontario}}$$

$$LQ = (3{,}190 \div 32{,}660) \div (110{,}475 \div 5{,}992{,}765) = 5.3$$

For the purpose of interpreting the LQ, the LQ has a base value of one. An LQ of one suggests that the County and the province are specialized to an equal degree in the chosen industry sector. If the LQ for the County is greater than one, it indicates that the County has a higher degree of specialization in the industrial sector than the province. An LQ of less than one indicates that the industrial sector is less specialized in the County than it is for the province.

Table 2.25 presents the LQs for Bruce County and Grey County using the data presented in Table 2.24. Based on 2001 LQ calculations, the economy of Bruce County is specialized in several industrial sectors including Utilities, Agriculture, and Construction while the economy of Grey County is specialized in Agriculture and Construction.

Table 2.25 Location Quotient for Bruce County and Grey County Industrial Sectors, 2001

NAICS Industrial Sector	Bruce County	Grey County
Agriculture	5.3	4.1
Forestry, Fishing and Hunting	2.0	1.4
Mining, oil, gas extraction	1.4	0.9
Utilities	14.7	1.1
Construction	1.5	1.5
Manufacturing	0.6	1.1
Wholesale trade	0.5	0.7
Retail trade	1.0	1.1
Transportation and warehousing	0.7	0.8
Information and cultural industries	0.4	0.6
Finance and insurance	0.4	0.5
Real estate, rental, leasing	0.5	0.7
Professional, scientific	0.4	0.5
Management of companies	0.0	0.8
Administrative and support [a]	0.7	0.8
Educational services	0.8	0.8
Health care and social assistance	1.0	1.2
Arts, entertainment and recreation	0.7	1.0
Accommodation and food services	1.3	1.0
Other services [b]	1.0	1.1
Public administration	0.6	0.7

[a] Includes waste management and remediation services.
[b] Except public administration.
Source: Statistics Canada, 2001.

Between 1996 and 2001, total employment in Bruce County increased by 530 jobs or 1.6%. During the same period total employment increased by 1,810 jobs or 4.2% in Grey County. In contrast the total number of jobs across the province increased by almost 11% between 1996 and 2001 (Table 2.26).

In Bruce County substantial job gains were reported in a number of industrial sectors including Construction and Accommodation and Food Services while job losses were reported in Agriculture, Wholesale, and Retail Trade. In Grey County substantial job gains were also reported in a number of sectors including Manufacturing, Construction, and Transportation and Warehousing while job losses were reported in Agriculture and Retail Trade. Between 1996 and 2001 the pattern of job losses and gains across different industrial sectors was not always consistent with trends at the provincial level.

For example, both Bruce and Grey experienced job losses in Retail Trade while the province experienced a slight increase in this sector between 1996 and 2001. Bruce and Grey also lost jobs in Public Administration while the province as a whole experienced an increase in jobs in this sector. In a number other sectors Bruce and Grey experienced job gains or losses at a greater or lesser rate than the province. For example, Grey County experienced an 18% increase in manufacturing jobs between 1996 and 2001 compared to the provincial increase of 6.7%. In Bruce County the Agriculture sector experienced a 6.9% loss in jobs between 1996 and 2001 compared to the provincial loss of 15.7%.

Table 2.26 Change in Employment by Select Industrial Sector for Bruce County and Grey County, 1996 to 2001 [a]

Industrial Sector	Ontario	Bruce			Grey		
	% change	Jobs in 1996 [b]	Jobs in 2001 [c]	% change	Jobs in 1996 [b]	Jobs in 2001 [c]	% change
All industries	10.9%	32,130	32,660	1.6%	43,350	45,160	4.2%
Agriculture	-15.7%	3,425	3,190	-6.9%	4,060	3,450	-15.0%
Manufacturing	6.7%	3,315	3,480	5.0%	6,835	8,080	18.2%
Construction	14.4%	2,310	2,635	14.1%	3,085	3,635	17.8%
Transportation and warehousing	41.1%	1,025	1,080	5.4%	1,390	1,720	23.7%
Wholesale	0.2%	975	795	-18.5%	1,390	1,445	4.0%
Retail trade	1.4%	3,970	3,775	-4.9%	6,050	5,440	-10.1%
Accommodation & food services	8.3%	2,445	2,635	7.8%	3,000	2,825	-5.8%
Educational services	0.5%	1,675	1,690	0.9%	2,425	2,360	-2.7%
Health care & social assistance	3.5%	3,100	3,005	-3.1%	4,985	4,980	-0.1%
Public administration	1.4%	1,095	1,065	-2.7%	1,790	1,625	-9.2%

[a] While NAICS and SIC industry sectors are not directly comparable, selected sectors have been presented to illustrate general trends.
[b] Standard Industrial Classification (SIC) system
[c] North American Industry Classification System (NAICS)
Source: Statistics Canada, 1996, 2001.

It is important to recognize that the decline in agriculture employment does not reflect trends in overall farm productivity. Farm production has actually increased substantially in Bruce and Grey. For example, between 1996 and 2001 the value of total gross farm receipts reported in Bruce County increased from $280 million to almost $310 million while total gross farm receipts in Grey County increased from $213 million to 240 million (Statistics Canada, Census of Agriculture, 1996 and 2001). Table 2.27 illustrates the ranking of Bruce and Grey in comparison to the 20 leading agricultural counties/regions in Ontario. Both Bruce and Grey are within the

top five counties in terms of total farmland area and within the top ten in terms of total farm numbers.

The size and importance of the Agriculture sector in Bruce and Grey is brought into perspective when shown in relation to the agriculture sector in other provinces. Bruce and Grey reported over $550 million in combined total gross farm receipts in 2001. This is higher than the gross farm receipts reported in any individual Atlantic province.[5]

Table 2.27 Agriculture Sector Characteristics of Bruce County and Grey County Ranked in Comparison to Other Leading Counties/Regions in Ontario

Rank	County or Region	Total Number of Farms	County or Region	Total Gross Farm Receipts	County or Region	Total Acres of Farmland	Rank
1	Huron	2,880	Huron	$656,497,798	Huron	719,066	1
2	**Grey County**	**2,834**	Oxford	$556,129,845	Middlesex	620,321	2
3	Middlesex	2,640	Perth	$555,081,128	**Bruce**	**611,461**	3
4	Wellington	2,616	Haldimand-Norfolk	$541,430,839	Lambton	604,555	4
5	Haldimand-Norfolk	2,602	Niagara	$511,395,019	**Grey**	**593,121**	5
6	Perth	2,570	Middlesex	$494,456,195	Chatham-Kent	552,402	6
7	Simcoe	2,463	Essex	$470,768,851	Simcoe	540,870	7
8	Lambton	2,427	Chatham-Kent	$439,758,272	Haldimand-Norfolk	515,099	8
9	Chatham-Kent	2,352	Wellington	$433,775,725	Perth	502,926	9
10	**Bruce**	**2,345**	Waterloo	$379,601,661	SDG [a]	496,498	10
11	Niagara	2,266	Lambton	$321,690,461	Wellington	471,389	11
12	Oxford	2,104	**Bruce**	**$309,996,102**	Oxford	445,458	12
13	SDG [a]	1,939	Simcoe	$293,933,003	Renfrew	402,978	13
14	Essex	1,789	Elgin	$262,605,470	Elgin	382,786	14
15	Durham	1,709	SDG [a]	$252,046,737	Kawartha Lakes	360,690	15
16	Elgin	1,608	**Grey**	**$240,606,873**	Leeds & Grenville	336,650	16
17	Kawartha Lakes	1,516	Durham	$233,890,944	Essex	334,122	17
18	Waterloo	1,444	Hamilton	$222,342,429	Durham	330,286	18
19	Leeds & Grenville	1,348	Prescott & Russell	$183,265,517	Hastings	306,068	19
20	Renfrew	1,342	York	$178,963,186	Ottawa	297,644	20

[a] Stormont, Dundas and Glengarry
Source: Statistics Canada, Census of Agriculture, 2001.

The agricultural employment data presented in Table 2.27 is made up of farm owners and operators and hired farm labour. While the majority of agricultural employment is associated with owners and operators, hired labourers play an important support role in the agriculture sector. In 2001, a total of 26,551 weeks of employment were reported by full-time (year round)

[5] Total gross farms receipts for 2001 as reported in Nova Scotia = $460 million; New Brunswick = $445 million; Prince Edward Island = $395 million; Newfoundland and Labrador = $90 million (Statistics Canada, Census of Agriculture, 2001).

hired farm labourers in Bruce County. As well, seasonal farm labourers in Bruce County reported a total of 7,624 weeks of employment. During the same period a total of 25,045 weeks of employment were reported by full-time (year round) hired farm labourers in Grey County. Seasonal farm labourers in Grey County reported a total of 16,305 weeks of employment. The higher seasonal employment figure reported in Grey County is associated with the local apple industry, which accounts for almost 25% of the total apple producing area in Ontario (Statistics Canada, 2001).

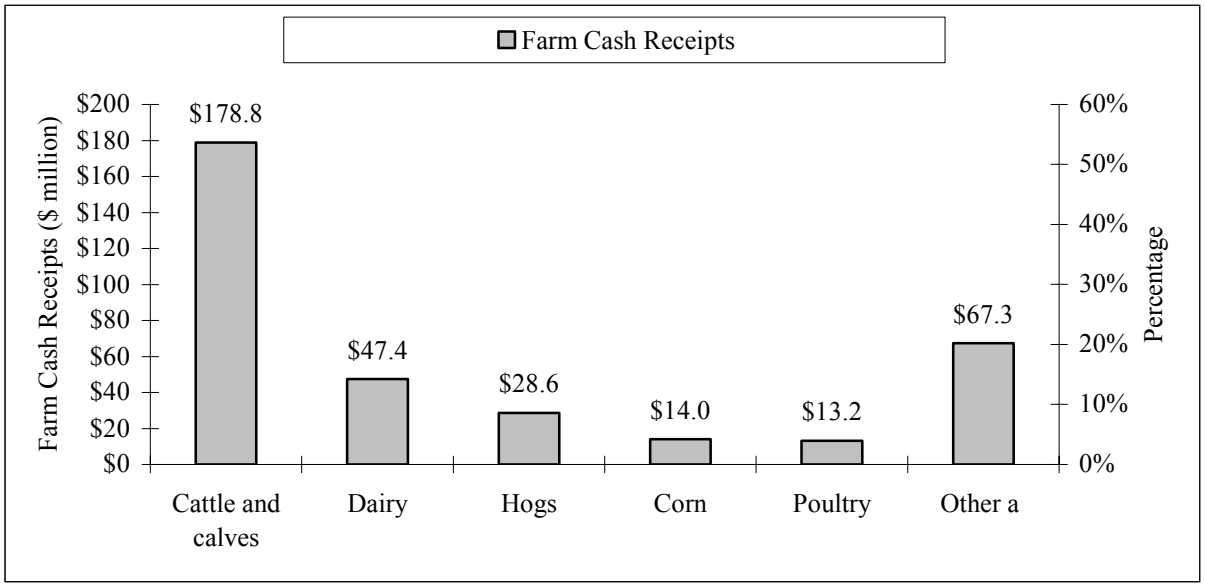
Bruce and Grey Counties feature a diversity of agricultural production.

The top five ranking agricultural commodities in Bruce County in 2002 in terms of total gross farm receipts include cattle and calves ($178.8 million), dairy ($47.4 million), hogs ($28.6 million), corn ($14 million), and poultry ($13.2 million). The value of the beef sector is significant in Bruce County accounting for 51% of the total gross farm receipts generated in 2002 (see Figure 3.7).

The top five ranking agricultural commodities in Grey County in 2002 in terms of total gross farm receipts include cattle and calves ($87.6 million), dairy ($33.6 million), eggs and poultry ($18.5 million), fruit ($18.4 million), and hogs ($11.2 million). The value of the beef sector is also significant in Grey County accounting for 41% of the total gross farm receipts generated in 2002 (see Figure 3.8).

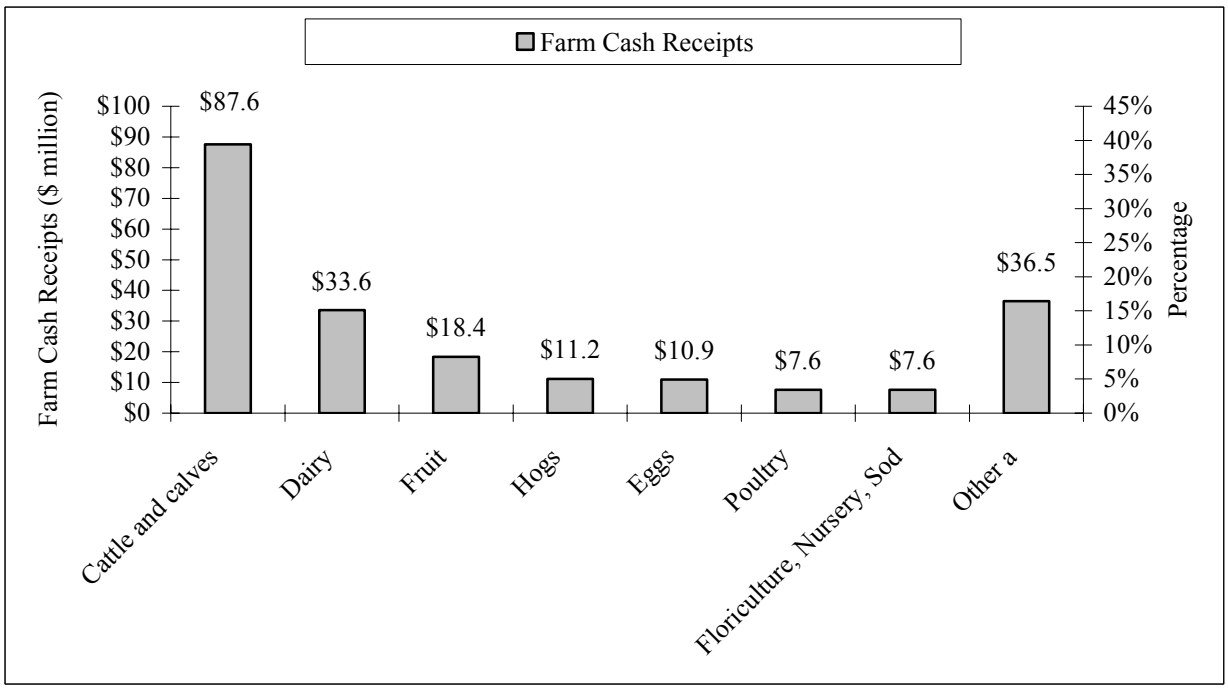
The agriculture sector in Bruce and Grey Counties has extensive linkages with other sectors of the economy (e.g. manufacturing, transportation, construction, etc.) and can be impacted by changes occurring elsewhere in the province, country and the world. Evidence of this can be seen in the effects of a worldwide embargo that was placed on Canadian beef as the result of a single case of bovine spongiform encephalopathy (BSE or mad cow disease) in Alberta. Although regional figures are unavailable, Ontario's 21,000 beef producers were estimated to be losing approximately $4 million per week during the height of the BSE situation (Ontario Cattlemen's Association, September 2, 2003).

Figure 2.10: Farm Cash Receipts for Main Commodities, Bruce County, 2002 (Total = $349.3million)



[a] 'Other' includes other livestock types including sheep and lambs and other crops including wheat, soybeans, dry white beans, oats, barley, hay, green peas, green beans, potatoes, apples, raspberries, strawberries, etc.
Source: Statistics Canada, Census of Agriculture 2001,and OMAF, Policy and Programs Branch, 2002.

Figure 2.11 Farm Cash Receipts for Main Commodities, Grey County, 2002 (Total = $213.4million)



[a] 'Other' includes other livestock types including sheep and lambs and other crops including corn, wheat, soybeans, dry white beans, oats, barley, hay, green peas, green beans, potatoes, etc.
Source: Statistics Canada, Census of Agriculture 2001,and OMAF, Policy and Programs Branch, 2002.

2.3.5.1 Male Labour Force by Industrial Sector

In 2001 there were major differences between the male labour forces in Bruce and Grey in terms of their employment by industrial sector (Table 2.28).

In Bruce County the highest percentage of the male labour force is in the Utilities sector (17.6%) followed by Construction (13.3%), Manufacturing (13.2%), Agriculture (12.3%), and Retail Trade (9.3%). Most of the jobs reported in the Utilities sector are associated with Bruce Power, Ontario's largest independent electricity generator.

In Grey County the highest percentage of the male labour force is in the Manufacturing sector (23%) followed by Construction (13.6%), Agriculture (9.6%), Retail Trade (9.2%), and Transportation and Warehousing (5.4%).

The Bruce and Grey labour profiles also stand in contrast to the provincial profile. At the provincial level the highest percentage of the male labour force is in the Manufacturing sector (21.7%) followed by Retail Trade (9.6%), Construction (9.2%), and Professional, Scientific and Technical Services (7.5%).

Table 2.28 Male Labour Force in Grey County and Bruce County by Industrial Sector Compared to the Ranked Profile for Ontario, 2001

NAICS Industrial Sector	Ontario		Bruce County		Grey County	
	Total Jobs	%	Total Jobs	%	Total Jobs	%
Manufacturing	687,235	21.7%	2,360	13.2%	5,490	23.0%
Retail trade	303,405	9.6%	1,665	9.3%	2,200	9.2%
Construction	292,475	9.2%	2,370	13.3%	3,245	13.6%
Professional, scientific	239,410	7.5%	440	2.5%	775	3.2%
Transportation and warehousing	204,365	6.4%	745	4.2%	1,290	5.4%
Wholesale trade	181,100	5.7%	590	3.3%	1,090	4.6%
Public administration	162,035	5.1%	485	2.7%	955	4.0%
Accommodation and food services	157,145	5.0%	755	4.2%	845	3.5%
Administrative and support [a]	136,900	4.3%	625	3.5%	825	3.5%
Other services [b]	132,520	4.2%	635	3.6%	1,260	5.3%
Educational services	122,570	3.9%	470	2.6%	745	3.1%
Finance and insurance	112,705	3.6%	185	1.0%	280	1.2%
Health care and social assistance	90,255	2.8%	320	1.8%	785	3.3%
Information and cultural industries	90,035	2.8%	215	1.2%	475	2.0%
Agriculture	71,060	2.2%	2,190	12.3%	2,300	9.6%
Arts, entertainment and recreation	63,170	2.0%	185	1.0%	440	1.8%
Real estate, rental, leasing	58,645	1.8%	205	1.2%	280	1.2%
Utilities	35,375	1.1%	3,140	17.6%	340	1.4%
Mining, oil, gas extraction	18,600	0.6%	135	0.8%	145	0.6%
Forestry, Fishing and Hunting	10,885	0.3%	105	0.6%	110	0.5%
Management of companies	3,370	0.1%	0	0.0%	30	0.1%

[a] Includes waste management and remediation services.
[b] Except public administration.
Source: Statistics Canada, 2001.

2.3.5.2 Female Labour Force by Industrial Sector

In 2001 the female labour forces in Bruce and Grey were more similar than the male labour forces in terms of their employment by industrial sector (Table 2.29).

In Bruce County the highest percentage of the female labour force is in the Health Care and Social Assistance sector (18.1%) followed by Retail Trade (14.2%), Accommodation and Food Services (12.7%), Educational Services (8.2%), and Manufacturing (7.5%). In Grey County the highest percentage of the female labour force is also in the Health Care and Social Assistance sector (19.7%) followed by Retail Trade (15.3%), Manufacturing (12.2%), Accommodation and Food Services (9.3%), and Educational Services (7.6%).

The Bruce and Grey labour profiles are fairly similar to the provincial profile in terms of the top 5 ranking sectors. At the provincial level the highest percentage of the female labour force is in the Health Care and Social Assistance sector (15.7%) followed by Retail Trade (13.1%), Manufacturing (10.5%), Educational Services (8.8%), and Accommodation and Food Services (7.9%).

Table 2.29 Female Labour Force in Grey County and Bruce County by Industrial Sector Compared to the Ranked Profile for Ontario, 2001

NAICS Industrial Sector	Ontario		Bruce County		Grey County	
	Total Jobs	%	Total Jobs	%	Total Jobs	%
Health care and social assistance	441,535	15.7%	2,685	18.1%	4,195	19.7%
Retail trade	368,465	13.1%	2,105	14.2%	3,240	15.3%
Manufacturing	297,095	10.5%	1,115	7.5%	2,595	12.2%
Educational services	248,630	8.8%	1,215	8.2%	1,615	7.6%
Accommodation and food services	222,910	7.9%	1,880	12.7%	1,985	9.3%
Professional, scientific	189,685	6.7%	530	3.6%	895	4.2%
Finance and insurance	179,850	6.4%	450	3.0%	790	3.7%
Public administration	146,920	5.2%	575	3.9%	665	3.1%
Other services [a]	140,600	5.0%	870	5.9%	980	4.6%
Administrative and support [b]	120,120	4.3%	400	2.7%	715	3.4%
Wholesale trade	97,765	3.5%	205	1.4%	355	1.7%
Information and cultural industries	81,715	2.9%	180	1.2%	360	1.7%
Transportation and warehousing	75,785	2.7%	335	2.3%	430	2.0%
Arts, entertainment and recreation	58,780	2.1%	255	1.7%	475	2.2%
Real estate, rental, leasing	50,245	1.8%	120	0.8%	300	1.4%
Construction	39,775	1.4%	265	1.8%	395	1.9%
Agriculture	39,420	1.4%	1,000	6.7%	1,150	5.4%
Utilities	10,855	0.4%	575	3.9%	60	0.3%
Management of companies	4,525	0.2%	10	0.1%	10	0.0%
Mining, oil, gas extraction	2,510	0.1%	30	0.2%	10	0.0%
Forestry, Fishing and Hunting	2,305	0.1%	40	0.3%	30	0.1%

[a] Except public administration.
[b] Includes waste management and remediation services.
Source: Statistics Canada, 2001.

As illustrated in Table 2.28 and Table 2.29 there are major differences between the male and female labour forces in Bruce and Grey in terms of their employment by industrial sector. A large proportion of the total male labour force is working in Manufacturing, Construction, Agriculture and Utilities while the female labour force is largely concentrated in Health Care and Social Assistance, Retail Trade, Manufacturing, Educational Services, and Accommodation and Food Services.

2.3.6 Labour Force by Occupation

As defined by Statistics Canada, 'Occupation' refers to the kind of work persons were doing during the reference week, as determined by their kind of work and the description of the main activities in their job. If the person did not have a job during the week (Sunday to Saturday) prior to enumeration (May 15, 2001), the data relate to the job of longest duration since January 1, 2000.
Persons with two or more jobs were to report the information for the job at which they worked the most hours. The 2001 occupation data are classified according to the 2001 National Occupational Classification for Statistics (NOC-S 2001). This classification is composed of four levels of aggregation. There are 10 broad occupational categories containing 47 major groups that are further subdivided into 140 minor groups. At the most detailed level, there are 520 occupation unit groups. Occupation unit groups are formed on the basis of the education, training, or skill level required to enter the job, as well as the kind of work performed, as determined by the tasks, duties and responsibilities of the occupation. The following analysis focuses on the 10 broad occupational categories.

As shown in Table 2.30, Sales and service represented the largest occupational category in the Bruce County labour force in 2001 accounting for 23.7% of all occupations reported. Other top ranking occupations in Bruce in terms of the percentage of the total labour force employed include Trades, transport, equipment operators (19.9%), Primary industry (11.2%), Business, finance and administration (11.1%), and Management (9.3%). Details on the occupational profile for individual municipalities in Bruce County are presented in Appendix L.

In Grey County, Sales and service also represented the largest occupational category in 2001 accounting for 23.2% of all occupations reported. Other top ranking occupations in Grey in terms of the percentage of the total labour force employed include Trades, transport, equipment operators (17.9%), Business, finance and administration (12.3%), Processing, manufacturing and utilities (10.6%), and Management (9.3%). Details on the occupational profile for individual municipalities in Grey County are presented in Appendix M.

The leading occupations at the provincial level in terms of the percentage of the total labour force employed Sales and service (22.9%), Business, finance and administration (18.3%), Trades, transport, equipment operators (14.1%), Management (11.4%), and Processing, manufacturing and utilities (8.2%).

Table 2.30 Population in Grey County and Bruce County by Occupation Compared to the Ranked Profile for Ontario, 2001

Occupation Category	Ontario		Bruce County		Grey County	
	Total Jobs	%	Total Jobs	%	Total Jobs	%
All occupations	5,992,765	100.0%	32,660	100.0%	45,155	100.0%
Sales and service	1,371,245	22.9%	7,750	23.7%	10,465	23.2%
Business, finance and administration	1,097,835	18.3%	3,630	11.1%	5,565	12.3%
Trades, transport, equipment operators	845,125	14.1%	6,505	19.9%	8,080	17.9%
Management	685,390	11.4%	3,040	9.3%	4,270	9.5%
Processing, manufacturing and utilities	492,320	8.2%	2,345	7.2%	4,780	10.6%
Social science, education, govt., religion	455,825	7.6%	1,880	5.8%	2,900	6.4%
Natural and applied sciences	422,510	7.1%	1,840	5.6%	1,400	3.1%
Health	286,310	4.8%	1,510	4.6%	2,570	5.7%
Art, culture, recreation and sport	171,840	2.9%	515	1.6%	1,075	2.4%
Primary industry	164,360	2.7%	3,645	11.2%	4,055	9.0%

Source: Statistics Canada, 2001.

2.3.6.1 Male Labour Force by Occupation

In 2001 the occupational profiles for the male labour forces in Bruce and Grey were fairly comparable.

As shown in Table 2.31 Trades, transport, equipment operators represented the largest occupational category in the Bruce County male labour force in 2001 accounting for 34% of all occupations reported. Other top ranking occupations in Bruce in terms of the percentage of the total male labour force employed include Primary industry (15%), Sales and service (14%), and Management (10%).

In Grey County, Trades, transport, equipment operators also represented the largest occupational category in 2001 accounting for 31% of all occupations reported. Other top ranking occupations in Grey in terms of the percentage of the total male labour force employed includes Sales and service (16%), Primary industry (12%), and Processing, manufacturing and utilities (12%).

There are several notable differences between the provincial male occupational profile and the male profiles for Bruce and Grey. While the top two ranking occupations for the province were the same for Bruce and Grey, the percentage of the labour force in these occupations was different. The province reported a smaller percentage of its total male labour force in Trades, transport, equipment operators (24.5%) and a slightly higher percentage of its labour force in Sales and service (18.6%). Other major differences that set the provincial profile apart from Bruce and Grey include a high percentage of males in Business, finance and administration (9.8%), and a low percentage of males in Primary industries (3.9%).

Table 2.31 Male Labour Force in Grey County and Bruce County by Occupation Compared to the Ranked Profile for Ontario, 2001

Occupation Category	Ontario		Bruce County		Grey County	
	Total Jobs	%	Total Jobs	%	Total Jobs	%
All occupations	3,173,275	100.0%	17,820	100.0%	23,910	100.0%
Trades, transport, equipment operators	778,735	24.5%	6,025	34%	7,485	31%
Sales and service	590,345	18.6%	2,500	14%	3,715	16%
Management	434,470	13.7%	1,800	10%	2,610	11%
Natural and applied sciences	326,940	10.3%	1,590	9%	1,135	5%
Processing, manufacturing and utilities	319,820	10.1%	1,560	9%	2,945	12%
Business, finance and administration	311,995	9.8%	740	4%	1,255	5%
Social science, education, govt., religion	150,560	4.7%	515	3%	975	4%
Primary industry	122,555	3.9%	2,745	15%	2,870	12%
Art, culture, recreation, sport	79,010	2.5%	175	1%	470	2%
Health	58,845	1.9%	175	1%	450	2%

Source: Statistics Canada, 2001.

2.3.6.2 Female Labour Force by Occupation

In 2001 the occupational profiles for the female labour forces in Bruce and Grey were fairly comparable.

As shown in Table 2.32 Sales and service represented the largest occupational category in the Bruce County female labour force in 2001 accounting for 35.3% of all occupations reported. Other top ranking occupations in Bruce in terms of the percentage of the total female labour force employed include Business, finance and administration (19.5)%, Social science, education, government, etc. (9.2%), and Health (9%).

In Grey County, Sales and service also represented the largest occupational category in 2001 accounting for 31.7% of all occupations reported. Other top ranking occupations in Grey in terms of the percentage of the total female labour force employed includes Business, finance and administration (20.5)%, Health (10%), and Social science, education, government, etc. (9.1%).

There are several notable differences between the provincial female occupational profile and the female profiles for Bruce and Grey. In Bruce and Grey, Sales and service stands alone as the top ranking occupation (30%+) followed by Business, finance and administration (20%). In Ontario, these two same occupations are virtually tied (28%) for the top ranking occupation. Social science, education, government, etc. is the third ranking female occupation in Ontario at 11% which is slightly higher than the proportion reported for Bruce (9.2%) and Grey (9.1%). Another major difference is the higher percentage of women in Primary industries in Bruce (6.1%) and Grey (5.6%) relative to the province (1.5%). As in the case for men, the high figure for women in this occupation is associated with the strength of the agriculture sector.

Table 2.32 Female Labour Force in Grey County and Bruce County by Occupation Compared to the Ranked Profile for Ontario, 2001

Occupation Category	Ontario		Bruce County		Grey County	
	Total Jobs	%	Total Jobs	%	Total Jobs	%
All occupations	2,819,490	100.0%	14,845	100.0%	21,250	100.0%
Business, finance and administration	785,835	27.9%	2,890	19.5%	4,310	20.3%
Sales and service	780,900	27.7%	5,245	35.3%	6,745	31.7%
Social science, education, govt., religion	305,270	10.8%	1,365	9.2%	1,930	9.1%
Management	250,915	8.9%	1,240	8.4%	1,665	7.8%
Health	227,465	8.1%	1,335	9.0%	2,120	10.0%
Processing, manufacturing and utilities	172,505	6.1%	790	5.3%	1,835	8.6%
Natural and applied sciences	95,570	3.4%	250	1.7%	265	1.2%
Art, culture, recreation, sport	92,835	3.3%	340	2.3%	600	2.8%
Trades, transport, equipment operators	66,395	2.4%	485	3.3%	595	2.8%
Primary industry	41,805	1.5%	905	6.1%	1,185	5.6%

Source: Statistics Canada, 2001.

2.4 Summary

The purpose of the profile is to provide background information on the general socio-economic conditions in Bruce County and Grey County. The profile compliments research into present and future skills gaps in Bruce and Grey. Understanding the socio-economic context is essential for developing effective economic and human resource development strategies.

The profile was compiled using data from the 1996 and 2001 Statistics Canada Population Census and Census of Agriculture.

Between 1996 and 2001 the population of Grey County increased by 1.7% while the population of Bruce County decreased by 2.7%. In comparison the population for the Province of Ontario increased by 6.1%. Of the ten Counties and Regional Municipalities that make up Western Ontario, only Huron, Grey and Bruce have more than 50% of their population living in rural areas.

Bruce and Grey share a similar profile with respect to the distribution of population across different age categories. However, Bruce and Grey have a somewhat different pattern compared to the province as a whole. In Bruce and Grey there is a higher proportion of males and females in the 45 years and over age group and a much lower proportion of males and females in the 20-25 and 25-44 year old age group. This phenomenon may indicate that there is a higher than average out-migration rate in both counties because of limited employment and education opportunities for adults in their 30s and 40s. The age distribution in these counties is also reflected by a reduced number of young families resulting in a lower representation of the 0-4 age group than the province. This pattern has implications for future growth in the counties. Also, as expected, this area attracts a large retirement age population, given the attraction of retirement residence in the communities near the shores of Lake Huron and Georgian Bay.

The greatest number of Bruce and Grey residents reported their ethnic origin as Canadian followed by English and Scottish. In Bruce County, the fourth and fifth ranked origins are German and Irish while in Grey County Irish origin ranks fourth followed by German in fifth. These rankings are fairly consistent with the provincial profile. However, in terms of ethnic diversity, the population of Bruce and Grey is less diverse than the province as whole.

The average family income for Ontario as a whole was considerably higher than the county averages in Bruce and Grey in 2001. The provincial average was reported at $73,849, which is 17.3% and 21.1% higher than the average family income values reported for Bruce and Grey respectively.

The analysis of personal income data in 2001 shows that Ontario as a whole reported a higher average personal income (male and female combined) compared to Bruce and Grey. In Bruce and Grey Counties the average personal income for men was more than 50% higher than the average income reported for women in 2001. This is consistent with the provincial pattern.

The distribution of the population in Bruce and Grey across different education levels was fairly comparable in 2001. However, compared to the province relatively fewer people in Bruce and Grey have completed higher levels of formal education. The percentage of the Ontario population that received a degree from University is almost twice the percentage reported in Bruce and Grey.

In 2001, the three most common fields of study for women in Bruce and Grey Counties with post-secondary qualifications were: Health professions and related technologies; Commerce, management and business administration; and Educational, recreational, counselling services. For men with post-secondary qualifications in Grey and Bruce, the pattern is quite different from that of their female counterparts. The three most common fields of study for men in Bruce and Grey Counties in 2001 were: Applied science technologies and trades; Commerce, management and business administration; and Agricultural, biological, nutritional, food sciences.

The overall labour force participation rates for males and females in Grey and Bruce Counties is lower than the participation rates for the province. With respect to unemployment, males and females in Grey and Bruce Counties reported lower unemployment rates than the province in 2001. There is considerable variation in participation rates and unemployment rates among the different towns and townships in both Bruce and Grey.

More men tend to commute to work outside of the County than women. In Bruce and Grey Counties over 27% of the male labour force worked outside the Counties in 2001. In comparison, less than 23% of the female labour force in Bruce and Grey worked outside the Counties.

Bruce County reported a total of 32,660 jobs in 2001. Retail Trade was the largest employment sector in Bruce County in 2001 with 11.6% of the total jobs in the County. The other top ranking sectors in Bruce include Utilities (11.4%), Manufacturing (10.7%), Agriculture (9.8%), and Health Care and Social Assistance services (9.2%). Grey County reported a total of 45,160

jobs in 2001. Manufacturing was the largest employment sector in Grey County in 2001 with 8,080 jobs or 17.9% of the total jobs in the County. The other top ranking sectors in Grey include Retail Trade (12%), Health Care and Social Assistance services (11%), Construction (8%), and Agriculture (7.6%).

In contrast, the top ranking sectors at the provincial level include Manufacturing (16.4% of the total jobs), Retail Trade (11.2%), Health Care and Social Assistance services (8.9%), Professional, Scientific and Technical services (7.2%), Accommodation and Food services (6.3%), and Educational services (6.2%). While the Agriculture sector (1.8%) and the Utilities (0.8%) sector account for a small percentage of the total jobs in Ontario, these two sectors employ a significant percentage of the total population in Bruce and Grey.

Based on 2001 Location Quotient calculations, the economy of Bruce County is specialized in several industrial sectors including Utilities, Agriculture, and Construction while the economy of Grey County is specialized in Agriculture and Construction.

Between 1996 and 2001, total employment increased by 1.6% in Bruce and 4.2% in Grey. In contrast, the total number of jobs across the province increased by almost 11%. In Bruce County substantial job gains were reported in a number of industrial sectors including Construction and Accommodation and Food Services while job losses were reported in Agriculture, Wholesale, and Retail Trade. In Grey County substantial job gains were also reported in a number of sectors including Manufacturing, Construction, and Transportation and Warehousing while job losses were reported in Agriculture and Retail Trade. Between 1996 and 2001 the pattern of job losses and gains across different industrial sectors was not always consistent with trends at the provincial level.

For example, both Bruce and Grey experienced job losses in Retail Trade while the province experienced a slight increase in this sector between 1996 and 2001. Bruce and Grey also lost jobs in Public Administration while the province as a whole experienced an increase in jobs in this sector. In a number other sectors Bruce and Grey experienced job gains or losses at a greater or lesser rate than the province. For example, Grey County experienced an 18% increase in Manufacturing jobs between 1996 and 2001 compared to the provincial increase of 6.7%. In Bruce County the Agriculture sector experienced a 6.9% loss in jobs between 1996 and 2001 compared to the provincial loss of 15.7%.

It is important to recognize that the decline in agriculture employment does not reflect trends in overall farm productivity. Farm production has actually increased substantially in Bruce and Grey. The size and importance of the Agriculture sector in Bruce and Grey is brought into perspective when shown in relation to the agriculture sector in other provinces. Bruce and Grey reported over $550 million in combined total gross farm receipts in 2001. This is higher than the total gross farm receipts reported in any individual Atlantic province.

In 2001 there were major differences between the male labour forces in Bruce and Grey in terms of their employment by industrial sector. In Bruce County the top ranking sectors for men include Utilities, Construction, Manufacturing, Agriculture, and Retail Trade. Most of the jobs reported in the Utilities sector are associated with Bruce Power, Ontario's largest independent

electricity generator. In Grey County the top ranking sectors include Manufacturing, Construction, Agriculture, Retail Trade, and Transportation and Warehousing.

In 2001 the female labour forces in Bruce and Grey were more similar than the male labour forces in terms of their employment by industrial sector. In Bruce and Grey Counties the top ranking sectors include Health Care and Social Assistance, Retail Trade, Accommodation and Food Services, Educational Services, and Manufacturing

Sales and service represented the largest occupational category in the Bruce County labour force (male and female combined) in 2001 accounting for 23.7% of all occupations reported. Other top ranking occupations in Bruce in terms of the percentage of the total labour force employed include Trades, transport, equipment operators (19.9%), Primary industry (11.2%), Business, finance and administration (11.1%), and Management (9.3%).

In Grey County, Sales and service also represented the largest occupational category in 2001 accounting for 23.2% of all occupations reported. Other top ranking occupations in Grey in terms of the percentage of the total labour force employed include Trades, transport, equipment operators (17.9%), Business, finance and administration (12.3%), Processing, manufacturing and utilities (10.6%), and Management (9.3%).

In contrast, the leading occupations at the provincial level in terms of the percentage of the total labour force employed include Sales and service (22.9%), Business, finance and administration (18.3%), Trades, transport, equipment operators (14.1%), Management (11.4%), and Processing, manufacturing and utilities (8.2%).

FACT SHEET

Bruce Grey Skills Inventory: Present and Future

HIGH SCHOOL STUDENT PROFILE

The study carried out by the School of Environmental Design and Rural Development at the University of Guelph for the Bruce Grey Huron Perth Georgian Triangle Training Board in 2004 included a labour market profile and thousands of surveys with high school students, area employees and employers in Bruce and Grey counties. Five sub-regions were also examined: Bruce In-Land, Bruce Peninsula, Bruce Shoreline, Grey In-Land, and Georgian Bay.

This fact sheet focuses on some of the key findings gathered from just over 900 area high school students surveyed. This information provides a basis for understanding the potential labour force of the future through a greater understanding of the community's youth population.

EXTRA CURRICULAR ACTIVITIES

Most high school students are involved in extra curricular activities;

- 73% of grade ten students
- 58% of grade eleven students
- 60% of grade twelve students

The most popular activities include:

- Sport/physical activity with a team or coach
- Art, drama and music
- Student council

VOLUNTEER ACTIVITIES

The majority of high school students surveyed had participated in some form of non-paid work over the past year:

- 81% of grade ten students
- 75% of grade eleven students
- 78% of grade twelve students

The most popular industries chosen for unpaid work include:

- Information, Culture and Recreation
- Religious, Civic and Social Advocacy
- Health care and social assistance

PART-TIME AND SUMMER EMPLOYMENT ACTIVITIES

A large number of high school students also engage in part-time and/or summer employment:

- grade ten students engaged in summer employment: 65%; part-time: 64%
- grade eleven students engaged in summer employment: 69%; part-time: 70%
- grade twelve students engaged in summer employment: 81%; part-time: 77%

The most popular part-time and summer employment activities include:

- Wholesale and retail trade
- Accommodation and food services
- Construction, specialty trade

SELF-ASSESSMENT OF TRANSFERABLE SKILLS

High school students were asked to assess their skills sets:

- Males assessed themselves most highly in physical/mechanical, creative thinking and teamwork abilities
- Females assessed themselves most highly in social/interpersonal, teamwork and reading skills

FUTURE EDUCATION

The vast majority of students (91%) intend to pursue some type of post-secondary education:

- At the grade twelve level most females (43%) intend to go to college while 41% intend to go to university and 7% to trade school
- Males at the grade twelve level show a stronger intention to go to college (43%) while 26% intend to go to trade school and 17% to university
- Of all respondents, most males indicating they will go to university intend to pursue a Bachelor of Science while females are split between a Bachelor of Science and a Bachelor of Arts
- For those intending to go to college, most males intend to enrol in Engineering Technology or Protective Services, while most females favour Community Services or Health Sciences
- For those choosing the trade school option, most males intend to enrol in Automotive Service and women for Hairstyling

FUTURE PLACE OF WORK AND RESIDENCE

The potential out-migration of youth from Bruce and Grey counties is a serious concern according to survey results:

- Overall, 36% of students surveyed intend to leave their communities
- The majority of people that intend to stay are influenced by their desire to stay close by to their family and like the their community
- Of those that want to leave, the vast majority want to experience life elsewhere; a significant number are concerned there are no interesting jobs in their community

OTHER TRENDS

- A low number of students report that they participate in co-operative education programs, indicating a missed opportunity to build labour force skills

- While local employers are concerned about the low quantity and availability of strong managers, local youth have low enrolment in business studies courses and only 5% of surveyed students indicated a desire to go pursue a career in management, of that percentage, 70% intend to migrate to other communities

- Local employers also identified a need for greater soft skills such as customer service, teamwork and problem-solving, however, youth self-assessments do not support employers' perceptions; perhaps trainers and educators should be aware of making these skills transferable to the workplace

- According to employers, youth demonstrate satisfactory fundamental skills such as reading and math as well as technical and agricultural skills

3.0 High School Survey

3.1 Introduction

The economic viability and growth of communities is dependent upon a successful match between diversified employers offering high-quality job opportunities and a skilled workforce able to respond to corresponding labour requirements. Yet achieving such a balance is continually challenged by processes of change, which have intensified with global shifts in technology and macro-economic conditions. The key to building healthy local economies and enhancing the livelihoods of community members is thus the development of a comprehensive, informed understanding of labour supply and demand.

An inventory of the available skills within the local labour pool is an invaluable tool for strategic planning and economic development as identified shortcomings can be addressed through relevant training initiatives and recognized strengths can be used to attract new employers. With a view toward long-term sustainability it is critical to incorporate into such a study a detailed examination of the future labour force – the youth of the region. The Bruce-Grey High School Skills Survey was developed to respond to that aim through an investigation of young people living within the two counties.

The central goal of the survey research is to determine the expected skill levels of the future Bruce-Grey labour force. This is further disaggregated into several objectives:

- to identify the current skill levels of Bruce-Grey youth
- to identify youth expectations regarding skill improvement (future education)
- to identify youth expectations regarding future employment
- to identify youth expectations regarding future place of work and residence

3.2 Methodology

3.2.1 Participating High Schools

In order to reach the widest number of youth, all thirteen high schools in the region participated in the survey – eleven from the Bluewater District School Board (BDSB) and two from the Bruce-Grey Catholic District School Board (BGCDSB) (Table 3.1).

3.2.2 Survey Method

In consultation with the project Steering Committee the research team selected a paper questionnaire to be mailed out to each high school and administered by teachers as the most effective survey method. This type of data collection was an economical means to reach a wide number of respondents in geographically dispersed locations, it provided a high degree of anonymity such that students were able to answer honestly and candidly, and it accommodated a fairly lengthy number of questions. Moreover, by incorporating teachers as responsible survey administrators directed by a 'survey guide' supplied by the research team it was expected that the method would achieve high response rates and that the conditions under which the questionnaires were completed would be appropriately regulated.

Table 3.1 Participating High Schools by Location and School Board

County	High School	Location	School Board
Bruce	Bruce Peninsula DSS	Lion's Head	BDSB
	Chesley District HS	Chesley	BDSB
	Kincardine District SS	Kincardine	BDSB
	Sacred Heart HS	Walkerton	BGCDSB
	Saugeen District SS	Port Elgin	BDSB
	Walkerton District SS	Walkerton	BDSB
	Wiarton District HS	Wiarton	BDSB
Grey	Georgian Bay SS	Meaford	BDSB
	Grey Highlands SS	Flesherton	BDSB
	John Diefenbaker SS	Hanover	BDSB
	Owen Sound C & VI	Owen Sound	BDSB
	St. Mary's HS	Owen Sound	BGCDSB
	West Hill SS	Owen Sound	BDSB

3.2.3 Survey Design

The design of the survey instrument was based upon a directed strategy of responding to several categories of information as established by the research team and in accordance with the aims set out in the project terms of reference.

The first and by far the most extensive category was to focus upon the existing skills of the target population, which would provide a means of gauging the current abilities of youth that they take forward with them into their future participation in the labour force. A total of seven sub-categories outlined the various sources from which young people acquire skills, including school courses, extra-curricular activities, volunteering, part-time and summer jobs, co-op programs, and work at home. It was concluded that within each of these sub-categories, questions should elicit information on the particular type of activity and should incorporate a quantitative measure (average mark, hours and weeks, credits). Where relevant, the sub-categories were also to include questions regarding how and why the respondent came to participate in the activity. For the five areas in which youth gain experience from involvement with an employer the North American Industrial Classifications Standard (NAICS) was to be used in order to be comparable to both census data and the other two surveys of the Bruce-Grey Skills Inventory project. Finally, it was agreed that a self-assessment component be integrated into the questionnaire as a means of evaluating a number of transferable skills.

The research team agreed that information concerning the respondent's plans for developing their skills through future education was central to forecasting the future abilities of the Bruce-Grey workforce. The team also wanted to include several qualifiers as a way of determining attitudes regarding such proposed steps and factors that influenced the decision. More specifically, information was required for the type of educational institution and the relevant program that the young person plans to attend.

The third category was to examine the respondent's expectations regarding a future career, including both the type of employer he or she anticipates working for and the type of occupation they hope to have. The former of these two areas was again to draw upon NAICS definitions

while it was determined that the latter should use the National Occupation Classification Standard (NOCS). As with the education category, several questions were to focus on factors that influence such proposed decisions.

It was clearly evident to the research team that a fourth category was absolutely critical to the overall aim of the survey as it would determine the intentions of youth concerning their future place of employment and residence, the strategy being simply to ask whether or not they expect to remain in Bruce or Grey county to work and live. This was again to be followed by relevant sets of questions assessing factors of influence.

Finally, it was concluded that basic demographic information must be collected including gender and high school. The date of birth of the respondent was also required, even though it was somewhat redundant given the standard age range of each grade level. However, this was to be supplemented by a measure of the length of time lived in Bruce-Grey as expected to relate to attitudes concerning future movement.

Based upon these design considerations a draft version of the high school skills questionnaire was developed by the research team and provided to the steering committee for review and comments. At the same time the research team began to establish a relationship with both school boards in the region by sending out a request that they participate in the research project through assisting with survey administration. The request was subsequently approved, gaining the involvement and support of both the Bluewater District School Board and the Bruce-Grey Catholic District School Board.

Through one of these channels a pre-test was organized and conducted on April 7 at Sacred Heart High School in Walkerton with one class from each grade level (23 grade ten, 25 grade eleven and 30 grade twelve). In order to ensure that the multiple options proposed in the design stage were appropriate and that they encompassed all possible responses, the pre-test draft version was composed entirely of open-ended questions. The pre-test also provided a means of ensuring that the questions were clear and made sense to the students by asking that they make written comments and briefly discussing organization and content with the students following their completion of the questionnaire. Finally, the test provided a check on the length of time required to complete the questionnaire. Results from the pre-test were analyzed with respect to relevant concerns and findings were incorporated into another draft.

Further input into the design of the questionnaire was elicited from a small group of teachers, while the steering committee and research team also submitted their own comments. A final draft was subsequently developed and approved by all parties, including the research team, the steering committee, the principals, and the boards.

Beyond the assessment and finalization of the content and outline of the questionnaire, the instrument then needed to be formatted within *Snap* survey software and tested using the digital imaging scanner. This trial run confirmed the research team's technology selection as an efficient and effective means of processing a large amount of information from a paper questionnaire into a corresponding data set spreadsheet.

3.2.4 Survey Process

Questionnaires in *Snap* format were professionally printed and packaged for distribution to all of the high schools in Bruce and Grey counties. In May, a member of the research team hand-delivered the questionnaire sets to each school along with directions regarding the type of class they were to be administered to (grade, level, and approximate number of students), survey guides, and consent forms. Each respective principal was asked to coordinate the implementation of the survey at his or her school by selecting appropriate classes and supporting the relevant teachers in administering the questionnaire. Negative consent forms distributed to the students several days prior to actually conducting the survey provided for the required steps of attaining consent from respondents under the age of eighteen. In addition, the first page clearly stated that the student did not have to participate if they did not choose to and that where they did continue their responses would be entirely confidential.

Each school was asked to ship the completed questionnaires to the Bruce-Grey-Huron-Perth-Georgian Triangle Training Board (BGHPGTTB) office in Walkerton. In June, the research team collected the returned packages from this central location. Unfortunately the timing of the survey seemed to conflict with a busy period at the end of the academic year, which resulted in no surveys being completed by four of the thirteen high schools. Based upon the challenges this posed to the sampling strategy and representativeness of the survey, the research team concluded that the most effective approach would be to conduct a second round of questionnaires with the outstanding high schools as well as with two that had particularly low response rates in certain categories.

In early September, a member of the research team again hand-delivered questionnaires to six Bruce-Grey high schools with directions for their completion. The research team kept in contact with staff at each high school and retrieved completed surveys by the end of the month. As with the earlier returned questionnaires these were processed using *Snap* software and a digital imaging scanner, producing a final data set for each target grade.

3.3 Sampling Strategy

In order to achieve statistically significant survey results an appropriate sampling strategy was devised. Based upon the interests of the steering committee, it was decided that the target group should include grade ten, grade eleven, and grade twelve students of all ranges. The research team concluded that establishing each grade level as an individual population would be the most comprehensive and effective means of eliciting high-quality information, while remaining feasible and economical within the structure and budget of the overall project.

The second step was to determine the population size of each grade across the thirteen high schools, which was achieved with the assistance of individuals at each of the school boards. Using these figures, corresponding sample sizes were calculated for each grade based upon a 95% confidence level with a 5% confidence interval (Table 3.2).

Table 3.2 Target Grades by Population and Sample Size

Target Population (across 13 high schools)	**Population Size**	**Sample Size**
Grade 10	2110	325
Grade 11	2047	324
Grade 12	2882	339
TOTAL	7039	988

The challenge in proceeding with a conventional randomized sampling strategy was the absence of an appropriate sampling frame (a complete list of all potential respondents) combined with the logistical difficulties of distributing questionnaires to individually selected students. Therefore, cluster sampling was pursued by dividing each population into exhaustive and mutually exclusive groups based upon a set of standard classes that each student must take to complete high school. These clusters were Civics class for grade ten students and English class for grade eleven and twelve students. This strategy then required further information from the individual high schools regarding the number of each of these classes and the students per class for each semester.

Two additional obstacles presented themselves in preparing to conduct a random cluster sampling. The first concerned the differential cluster sizes (number of students) for each targeted class type. The second challenge involved students enrolled in the target classes in the first semester who, while logistically not available, had to be accounted for in order to achieve the required exhaustion of total populations. The strategy for overcoming these issues was to first translate cluster sizes into relative weights for sampling purposes by dividing the total population of each grade within each school by a standard figure.

Thus a single weighted unit came to represent 25 students in the target population across both semesters. The weights were rounded off to a whole unit and compiled into a sample frame of representative clusters. By referring to the required overall sample size, an appropriate number of clusters were then randomly sampled providing each high school with a quota of respondents by class type. For example, Grey Highlands S.S., having a large grade ten population of 247 students, was weighted with ten Civics clusters of which two were randomly sampled. Thus, Grey Highlands became responsible for completing 50 grade ten questionnaires.

For English, the clusters also needed to recognize differential categories of class types (university, college, and workplace). This was achieved by following the same calculation procedures but in a disaggregated manner. Thus, the clusters in the grade eleven and twelve sample frame carried a tag representing a level of English aptitude.

Since the clusters in the sample frame were not attached to a particular group of individuals, the logistical barrier of accessing students in semester one was accommodated by assuming that the randomly sampled clusters fell in the second semester. This also required a check against the availability of sampled clusters within the second semester. Where there were more options than required clusters, principals were directed to randomly select the given number of classes on their own.

In addition to the pure randomly sampled clusters, two to four supplementary clusters were included within each grade level population to ensure some form of representation from each

high school. The final product was a list of target classes and expected respondents for each school. These were intentionally greater than the required sample sizes in order to compensate for reasonably low response rates. The overall sampling process is summarized in Tables 3.3,3.4 and 3.5.

Table 3.3 Sampling Process - Grade 10

High School	**10 Civics Pop.** (both sem's)	**Sample Weight** (Civics pop/25) real	approx	**Randomly Sampled Clusters** (students)	**Sem. 2 Available Classes** (students)	**Target Sample Classes** (students)
Bruce Peninsula DSS	37	1.48	1	1supp (25)	1 (22)	1 (22)
Chesley District HS	86	3.44	3	1supp (25)	1 (29)	1 (29)
Georgian Bay SS	142	5.68	6	1 (25)	1 (28)	1 (28)
Grey Highlands SS	247	9.88	10	2 (50)	3 (68)	2 (50)
John Diefenbaker SS	220	8.8	9	2 (50)	4 (106)	2 (50)
Kincardine District SS	175	7	7	1 (25)	3 (71)	1 (25)
Owen Sound C & VI	219	8.76	9	2 (50)	5 (120)	2 (50)
Sacred Heart HS	192	7.68	8	1 (25)	3 (80)	1 (25)
St. Mary's HS	118	4.72	5	1 (25)	3 (77)	1 (25)
Saugeen District SS	196	7.84	8	1 (25)	2 (53)	1 (25)
Walkerton District SS	115	4.6	5	1 (25)	3 (92)	1 (25)
West Hill SS	270	10.8	11	2 (50)	3 (80)	2 (50)
Wiarton District HS	93	3.72	4	1 (25)	3 (93)	1 (25)
TOTAL	211	84.4	86	17 (425)	35 (919)	17 (429)

Table 3.4. Sampling Process - Grade 11

High School	**11 English Population**	**Sample Weight** (Eng. pop/25) real	Approx	**Randomly Sampled Clusters** (students)	**Semester 2 Available Classes** (students)	**Target Sample Classes** (students)
BPDSS	44	1.76	2C	1C (25)	1C (14)	1C (14)
CDHS	70	2.80	2C, 1E	1suppC (25)	1C (15)	1C (15)
GBSS	129	5.16	2U, 2C, 1E	1U, 1suppC (50)	1U (32), 1C (25)	1U (32), 1C (25)
GHSS	225	9.00	4U, 3C, 2E	1U, 1E (50)	2U (47), 1E (18)	1U (25), 1E (18)
JDSS	168	6.72	3U, 3C, 1E	1C (25)	2C (73)	1C (25)
KDSS	185	7.40	4U, 3C	1C (25)	3C (58)	1C (25)
OSCVI	219	8.76	4U, 3C, 2E	1U (25)	4U (104)	1U (25)
SHHS	190	7.60	3U, 5C	1U, 1C (50)	1U (29), 2C (42)	1U (29), 1C (25)
SMHS	113	4.52	3U, 2C	1C (25)	1C (19)	1C (19)
SDSS	181	7.24	5U, 1C, 1E	1suppU, 1C (50)	2U (54), 1C (16)	1U (25), 1C (16)
WDSS	131	5.24	2U, 2C, 1E	1E (25)	1E (20)	1E (20)
WHSS	301	12.04	7U, 4C, 1E	1U (25)	3U (83)	1U (25)
WiDHS	91	3.64	2U, 2C, 1E	1suppU, 1E (50)	2U (36), 1E (15)	1U (25), 1E (15)
TOTAL	2047	81.88	39U, 34C, 11E	7U, 8C, 3E (450)	24U, 21C, 10E	7U, 8C, 3E (403)

Table 3.5. Sampling Process - Grade 12

High School	12 English Population	Sample Weight (Eng. pop/25)		Randomly Sampled Clusters (students)	Semester 2 Available Classes (students)	Target Sample Classes (students)
		real	Approx			
BPDSS	42	1.40	1C	1suppC (25)	1 C (11)	1C (11)
CDHS	106	3.53	2C, 1E	1suppE (25)	1E (10)	1E (10)
GBSS	168	5.60	2U, 4C	1U (25)	1U (26)	1U (26)
GHSS	297	9.90	5U, 3C, 2E	1U (25)	2U (43)	1U (25)
JDSS	260	8.67	4U, 4C, 1E	2U, 1E (75)	2U (95), 1E (21)	2U (50), 1E (21)
KDSS	265	8.83	4U, 4C, 1E	1C, 1suppC (50)	4C (89)	2C (50)
OSCVI	327	10.90	4U, 5C, 2E	1C (25)	3C (70)	1C (25)
SHHS	205	6.83	3U, 4C	1U (25)	2U (51)	1U (25)
SMHS	125	4.17	1U, 2C, 1E	1suppU, 1E (50)	1U (20), 1E (5)	1U (20), 1E (5)
SDSS	311	10.37	6U, 3C, 1E	1C (25)	1C (22)	1C (22)
WDSS	201	6.70	3U, 3C	1C (25)	1C (31)	1C (31)
WHSS	433	14.43	4U, 8C, 2E	1C, 1suppE (50)	4C (87), 1E (17)	1C (25), 1E (17)
WiDHS	142	4.73	2U, 2C, 1E	1 U (25)	2U (42)	1U (25)
TOTAL	2882	96.07	38U, 45C, 12E	7U, 7C, 4E (450)	22U, 26C, 9E	7U, 7C, 4E (388)

3.4 Survey Analysis

3.4.1 Response Rate

The sampling strategy outlined above distributed 429, 403, and 388 questionnaires to grade ten, eleven, and twelve students respectively across Bruce and Grey counties based upon established targets for each high school. The number of questionnaires completed relative to the number delivered is summarized in Tables 3.6, 3.7 and 3.8.

Table 3.6 Grade 10 Response Rates

High School	Target Population	Completed Questionnaires	Response Rate
Bruce Peninsula DSS	22	17	77%
Chesley District HS	29	19	66%
Georgian Bay SS	28	18	64%
Grey Highlands SS	50	42	84%
John Diefenbaker SS	50	38	76%
Kincardine District SS	25	34	136%
Owen Sound C & VI	50	51	102%
Sacred Heart HS	25	12	48%
St. Mary's HS	25	21	84%
Saugeen District SS	25	20	80%
Walkerton District SS	25	18	72%
West Hill SS	50	32	64%
Wiarton District HS	25	25	100%
TOTAL	**429**	**347**	**81%**
Required Sample Size	**325**	**347**	**107%**

Table 3.7 Grade 11 Response Rates

High School	Target Pop. (University)	Comp'd Q's	Resp. Rate	Target Pop. (College)	Comp'd Q's	Resp. Rate	Target Pop. (Wrkplace)	Comp'd Q's	Resp. Rate
BPDSS	n/a	n/a	n/a	14	7	50%	n/a	6	+6
CDHS	n/a	n/a	n/a	15	10	67%	n/a	3	+3
GBSS	32	24	75%	25	12	48%	n/a	4	+4
GHSS	25	13	52%	n/a	n/a	n/a	18	10	56%
JDSS	n/a	n/a	n/a	25	18	72%	n/a	n/a	n/a
KDSS	n/a	n/a	n/a	25	17	68%	n/a	n/a	n/a
OSCVI	25	28	112%	n/a	n/a	n/a	n/a	n/a	n/a
SHHS	29	0	0%	25	21	84%	n/a	n/a	n/a
SMHS	n/a	2	+2	19	14	74%	n/a	n/a	n/a
SDSS	25	20	80%	16	11	69%	n/a	4	+4
WDSS	n/a	n/a	n/a	n/a	n/a	n/a	20	7	35%
WHSS	25	18	72%	n/a	20	+20	n/a	n/a	n/a
WiDHS	25	19	76%	n/a	n/a	n/a	15	0	0%
TOTAL	**186**	**124**	**67%**	**164**	**130**	**79%**	**53**	**34**	**64%**
Req'd Sample	**149**	**124**	**83%**	**132**	**130**	**98%**	**43**	**34**	**79%**

Table 3.8 Grade 12 Response Rates

High School	Target Pop. (University)	Comp'd Q's	Resp. Rate	Target Pop. (College)	Comp'd Q's	Resp. Rate	Target Pop. (Wrkplace)	Comp'd Q's	Resp. Rate
BPDSS	n/a	n/a	n/a	11	6	55%	n/a	n/a	n/a
CDHS	n/a	n/a	n/a	n/a	1	+1	10	0	0%
GBSS	26	18	69%	n/a	n/a	n/a	n/a	n/a	n/a
GHSS	25	0	0%	n/a	n/a	n/a	n/a	8	+8
JDSS	50	28	56%	n/a	17	+17	21	12	57%
KDSS	n/a	1	+1	50	65	130%	n/a	n/a	n/a
OSCVI	n/a	n/a	n/a	25	0	0%	n/a	n/a	n/a
SHHS	25	43	172%	n/a	n/a	n/a	n/a	n/a	n/a
SMHS	20	8	40%	n/a	n/a	n/a	5	5	100%
SDSS	n/a	n/a	n/a	22	10	45%	n/a	n/a	n/a
WDSS	n/a	n/a	n/a	31	24	77%	n/a	5	+5
WHSS	n/a	n/a	n/a	25	7	28%	17	0	0%
WiDHS	25	25	100%	n/a	5	+5	n/a	6	+6
TOTAL	**171**	**123**	**72%**	**164**	**135**	**82%**	**53**	**36**	**68%**
Req'd Sample	**149**	**123**	**83%**	**144**	**135**	**94%**	**46**	**36**	**78%**

Regardless of the attempt to over-sample, unexpectedly low response rates in a number of categories meant that initial sample size targets were met only for the grade ten population. Therefore, the confidence intervals for each grade must be adjusted accordingly (Table 3.9).

Table 3.9 Adjusted Confidence Intervals for Achieved Sample Size

Target Population	Population Size	Achieved Sample Size	Confidence Level	Confidence Interval
Grade 10	2110	347	95%	4.81
Grade 11	2047	288	95%	5.35
Grade 12	2882	294	95%	5.42
TOTAL	7039	929		

3.4.2 Respondent Profile

It is useful to begin the formal analysis of the survey results with a basic demographic profile of the respondents. As discussed above, age ranges are a rather simple matter being relatively bound to the grade level of the student. However, it is worthwhile to make explicit this defining characteristic of the survey's target population (Table 3.9).
The grade ten population falls entirely within the 15-16 age range, grade eleven primarily within 16-17, and grade twelve primarily within 17-18. The majority of the survey analysis to follow will therefore not disaggregate findings by age but rather rely upon the divisions by grade levels as a fundamental proxy for this variable.

Table 3.10 Sample Population by Date of Birth

Target Population	Date of Birth					TOTAL
	1985	1986	1987	1988	1989	
Grade 10	0	0	0	218	129	347
Grade 11	0	14	175	99	0	288
Grade 12	28	125	141	0	0	294
TOTAL	28	139	316	317	129	929

The second characteristic of the respondents to initially establish is gender. Comparing survey results to Census data provides a means of assessing the degree to which the sample is representative of the general population with regard to this basic variable (Table 3.10). This reveals that the survey slightly over-sampled females relative to their distribution in the overall 15-19 age range. However, these differences are minimal and will not affect the overall validity of subsequent analysis.

Table 3.11 Sample Population by Gender Compared with Census Data

Target Population	Gender (sample)		Gender (Census 15-19)	
	male (%)	female (%)	male (%)	female (%)
Grade 10	46	54	n/a	n/a
Grade 11	51	49	n/a	n/a
Grade 12	46	54	n/a	n/a
TOTAL (15-19)	48	52	52	48

The basic geographical unit used in the survey is the high school. Based upon the random sampling process, respondents are distributed across these units more or less relative to their weight within the actual population (Table 3.11). Comparing the distribution of the sample by high school to Census data regarding the percentage of 15-19 year olds within corresponding municipal divisions provides another check on the representativeness of the survey (Table 3.12). While the match between high school and municipal population is not perfect due to the fact that

attendance boundaries often overlap or crosscut township divisions, such data does confirm the validity of the survey in capturing an accurate picture of the geographical spread of the region's youth.

Table 3.12 Sample Population by High School

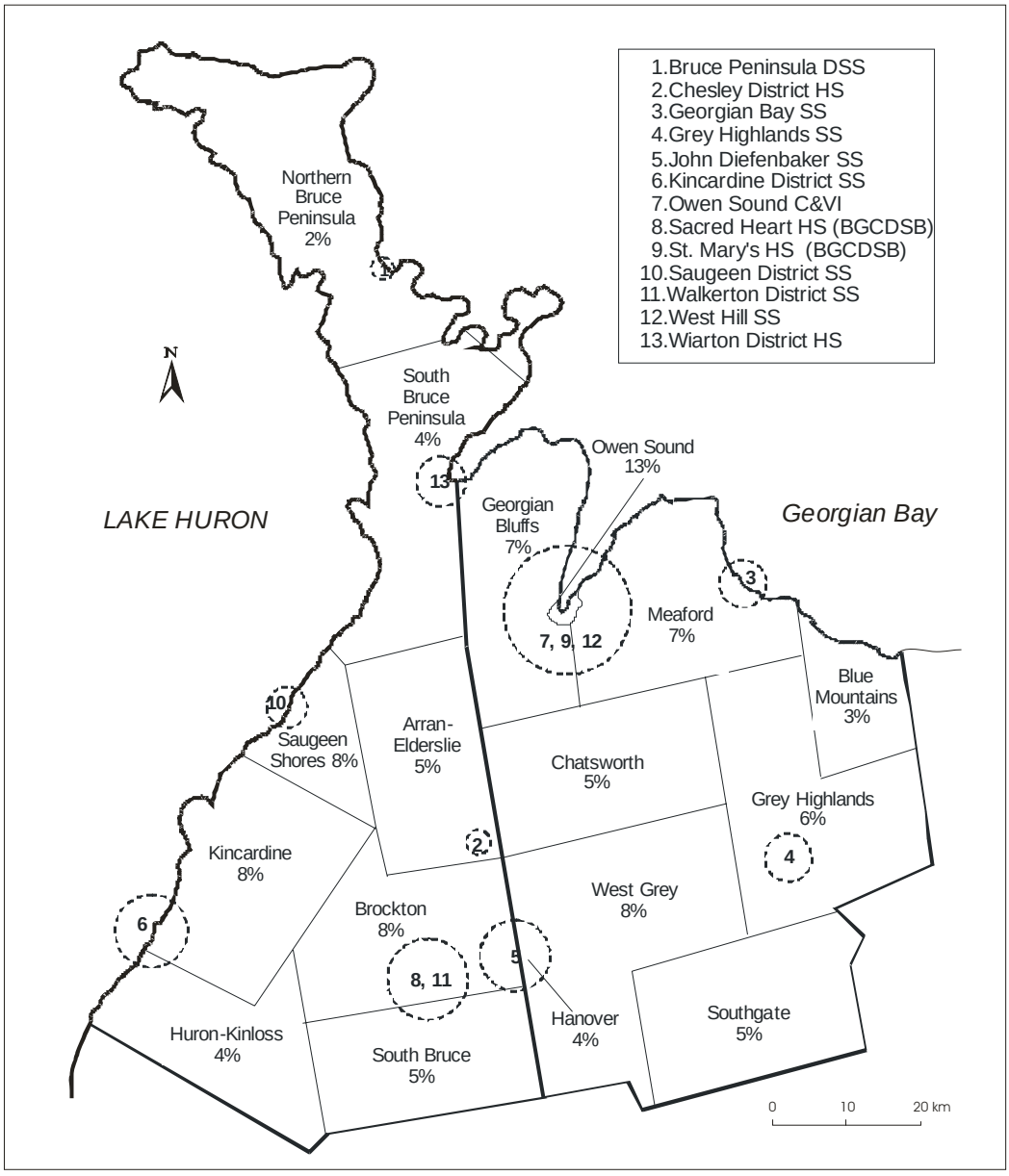
High School	Grade Level			Total
	10	**11**	**12**	
Bruce Peninsula DSS	17	13	6	**36**
Chesley District HS	19	13	1	**33**
Georgian Bay SS	18	40	18	**76**
Grey Highlands SS	42	23	8	**73**
John Diefenbaker SS	38	18	57	**113**
Kincardine District SS	34	17	66	**117**
Owen Sound C & VI	51	28	0	**79**
Sacred Heart HS	12	21	43	**76**
St. Mary's HS	21	16	13	**50**
Saugeen District SS	20	35	10	**65**
Walkerton District SS	18	7	29	**54**
West Hill SS	32	38	7	**77**
Wiarton District HS	25	19	36	**80**
TOTAL	**347**	**288**	**294**	**929**

Table 3.13 Sample Distribution by School Compared to Census Data

High School	Sample (%)	Attendance Municipalities	Census Pop. 15-19 (%)
Bruce Peninsula DSS	4%	Northern Bruce Peninsula	2%
Chesley District HS	4%	Arran-Elderslie, Chatsworth	10%
Georgian Bay SS	8%	Blue Mountains, Meaford	10%
Grey Highlands SS	8%	Grey Highlands, Southgate	11%
John Diefenbaker SS	12%	Hanover, West Grey	12%
Kincardine District SS	13%	Huron-Kinloss, Kincardine	12%
Owen Sound C & VI	9% 22%	Georgian Bluffs, Meaford, Owen Sound	27%
St. Mary's HS	8%		
West Hill SS	5%		
Sacred Heart HS	7% 13%	Brockton, South Bruce	13%
Walkerton District SS	6%		
Saugeen District SS	8%	Saugeen Shores	8%
Wiarton District HS	9%	portion of Georgian Bluffs, South Bruce Peninsula	7%

The relationship between sample percentages by high school and percentages of 15-19 year olds within the corresponding municipalities can also be shown visually (Map 1). The size of the circle represents the number of respondents per marked high school(s). This can be compared to the density of youth in the surrounding municipal areas.

Map 3.1. Comparison of Sample by High School to Population of 15-19 Years of Age Within Municipalities



3.4.3 Current Skills

As discussed above, the largest component of the high school questionnaire focused upon assessing the current skills of Bruce-Grey youth. This was structured around seven different sources from which young people acquire their abilities and aptitudes, including school, extra-curricular activities, volunteering, part-time and summer jobs, co-operative programs, and work at home. In addition, a self-assessment portion supplemented such objective measures with the subjective perspectives of respondents regarding their own transferable skill levels. The following section reports the results of each of these categories highlighting both assets and gaps in skills and experience.

3.4.3.1 School Courses

The first category uses student achievement in school courses to provide a measure of relative skill levels. Data concerning class type and approximate overall average was collected for three core subjects (Tables 3.13, 3.14, 3.15). In the grade ten population, 69 percent of students are enrolled in academic-level English classes, 58 percent in academic Math and 62 percent in academic Science. These students score mean achievement marks in the mid 70 percent range across the three subjects. Applied-level students make up the remainder of the grade ten distribution and are also consistent across the subjects in recording average marks in the upper 60 percent range.

Table 3.14 Number of Students and Average Marks by Class Level – Grade 10

Level	English		Math		Science	
	# of students	mean mark	# of students	mean mark	# of students	mean mark
Academic	227	74.7%	191	75.1%	204	74.3%
Applied	99	68.4%	128	68.7%	117	69.2%

Grade eleven students are distributed relatively equally between university and college level English classes, each representing around 45% of the total population, with the remainder at a workplace level. Average English marks show a positive correlation with the class level. For Math and Science, a considerable number of students have not taken a grade eleven course (i.e. reporting their current or most recent class as a grade ten academic or applied level). Mean marks and class level in these subjects are likewise positively correlated, with university, college and workplace scoring approximately 75, 70 and 68 percent respectively.

Table 3.15 Number of Students and Average Marks by Class Level – Grade 11

Level	English		Math		Science	
	# of students	mean mark	# of students	mean mark	# of students	mean mark
Academic	n/a	n/a	42	75.0%	58	69.9%
Applied	n/a	n/a	60	69.1%	78	66.4%
University	124	76.2%	49	75.7%	80	74.6%
College	126	71.3%	94	70.9%	49	69.3%
Workplace	31	67.1%	18	66.7%	9	69.5%
U/C	n/a	n/a	18	66.2%	7	74.6%

The grade twelve population shares many similar characteristics with the grade elevens, including the distribution of students across class levels and corresponding average marks. A particular area of difference is the much fewer number of students reporting their current or most

recent Math or Science class at a grade ten level. This suggests that the lack of current skills for grade eleven students resulting from not taking these core subjects is largely remedied by the completion of their time in high school.

Table 3.16 Number of Students and Average Marks by Class Level – Grade 12

Level	English		Math		Science	
	# of students	mean mark	# of students	mean mark	# of students	mean mark
Academic	n/a	n/a	4	64.3%	15	68.9%
Applied	n/a	n/a	7	67.6%	37	63.9%
University	120	78.0%	92	73.4%	110	74.5%
College	132	72.6%	128	70.9%	102	71.4%
Workplace	32	64.4%	41	71.3%	20	72.8%
U/C	n/a	n/a	12	69.1%	n/a	n/a

Each of these core subjects is designed to impart associated core skills to students. English develops the basics of reading and writing, Math builds numeracy ability, and Science expands the capacity to analyze, make decisions, and solve problems. Measurements of achievement within the courses are thus reflective of students' skills.

Replicating the in-depth process of assessment and evaluation conducted by professional teachers was certainly beyond the scope of the current survey. Nevertheless, these results provide a basis for understanding the abilities of Bruce-Grey youth as developed by the secondary education institutions of the region. Students display adequate achievement across the grade populations, class levels, and core subjects.

The survey also collected information concerning enrolment and completion of other school subject categories as a means of assessing additional skills. Participation in Arts courses represents performance, creativity, and design skills; Business Studies as financial, management, and advanced numbers skills; Canadian and World Studies as additional reading and writing, analytical, and research skills; Technological Education as technical and mechanical skills; and Computer Studies as clerical and advanced computer skills. Of course, the types of skills built within each course type are not exhaustive. Nevertheless, the average number of credits earned within each category provides a useful proxy for corresponding abilities of Bruce-Grey youth (Table 3.17).

Table 3.17 Population by Average Number of Credits

Population	Arts	Business	Can & World	Tech. Ed.	Computers
Grade 10	1.50	0.61	1.99	1.13	0.44
Grade 11	1.96	0.98	2.24	1.93	0.79
Grade 12	2.14	1.28	2.55	1.92	1.10

Naturally there is a positive correlation between grade and the average number of credits received in each additional course category as students have greater opportunities in course selection as their time in high school proceeds. The highest participation rates are found in Arts and Canadian & World Studies courses. Students also reported considerable activity in Technological Education, which is a definite asset for the demand for corresponding skills within the larger workforce. Business Studies appears to be a less popular subject, while the minimal average number of credits received in Computer Studies is an area of concern for such essential skills among Bruce-Grey youth.

As with all instances where measures are presented in average terms it is critical to remember the possible diversity within the aggregation. Thus it is useful to examine a more detailed distribution of students by the number of credits completed in each subject (Table 3.18). This reinforces the notion that while overall averages may be low, there are groups or percentages of students in each category with specialized abilities. This type of skill diversification is essential to healthy local economies and labour markets.

Table 3.18 Percent Distribution of Population by Number of Credits

Subject	Grade 10 (%)			Grade 11 (%)			Grade 12 (%)		
	0	1-2	3-5	0	1-2	3-5	0	1-2	3-5
Arts	10	76	14	5	68	27	7	59	34
Bus.	47	53	0	36	58	6	27	59	14
Can&Wrld	2	74	24	4	61	35	3	47	50
TechEd	35	54	11	20	48	32	17	51	32
Comp's	61	38	1	47	48	5	33	57	10

3.4.3.2 Extra-Curricular Activities

Participation in activities outside of regular classes can assist in developing a wide range of skills for young people. Interacting in group settings builds social and interpersonal skills as well as teamwork and collaboration. Certain extra-curricular activities also provide an opportunity to enhance leadership skills, while all require an increased ability in self-management. Overall, the diversity of possible activities allows youth to seek out and achieve personal improvement in any number of transferable skill areas, such as physical and mechanical, performance and artistic creativity, administration and management, problem-solving and decision-making and so on.

For fun, interest, or new experiences, the majority of students in Bruce-Grey are active in some form of extra-curricular endeavour (73% of grade ten, 58% of grade eleven, and 60% of grade twelve). The number one category is a sport or physical activity with a team or coach, followed by art, drama, or music (Table 3.19). Participation in student council increases with grade level, while the opposite is true for involvement with a church group and cadets, scouts, or guides. Small but equal percentages of young people are active with 4-H. Grade twelve students dominate an 'other' category that incorporates activities such as yearbook, prom committee, OSAID, chess club, Reach for the Top, and so on. Bruce-Grey students spend on average 7 hours per week participating in extra-curricular activities (grade ten = 7.2, grade eleven = 7.5, grade twelve = 6.25).

Table 3.19 Extra-Curricular Activity Participation Rates by Grade*

Extra-Curricular Activity	Grade 10 (%)	Grade 11 (%)	Grade 12 (%)
Sports	85.7	76.5	71.0
Art, drama, music	48.8	44.0	43.2
Student council	16.7	20.5	27.3
Church group	24.6	15.7	13.6
Cadets, scouts, guides	9.1	4.2	3.4
4-H	6.0	7.2	6.3
Other: yearbook, prom, etc.	9.5	11.4	31.8

3.4.3.3 Volunteer Activities

Volunteering provides young people with the chance to gain valuable experience within the structure of an existing organization. As with extra-curricular activity, the multiplicity of tasks that an individual might perform on a voluntary basis facilitates the development of an equally diverse set of capabilities. The key then is promoting youth involvement in volunteer activities for their own skill enhancement.

A total of 78 percent of Bruce-Grey youth reported performing some form of unpaid work in the past year (grade ten = 81%, grade eleven = 75%, grade twelve = 78%). Those individuals assisted various organizations at varying degrees of time commitment (Table 3.20) by taking on a number of different responsibilities (Table 3.21).

Table 3.20 Volunteer Participation and Hours/Year by Industry and Grade

Industry Category	Grade 10		Grade 11		Grade 12	
	% of students	avg. hrs/yr	% of students	avg. hrs/yr	% of students	avg. hrs/yr
Information, Culture and Recreation	35%	33.0	32%	32.0	28%	34.7
Religious, Civic and Social Advocacy	27%	41.8	26%	30.9	29%	43.8
Health Care and Social Assistance	16%	43.4	15%	52.7	16%	28.6
Agricultural	13%	35.4	19%	30.7	11%	21.7
Educational	7%	28.1	7%	24.7	12%	35.9
Professional, Sci. and Tech'l Service	1%	22.0	0%	0	3%	32.4
Public Administration	1%	22.7	1%	18.3	1%	30.7

The greatest percentage of students reported helping an Information, Culture and Recreation organization, which corresponds with the most cited task of teaching or coaching to suggest that the majority of Bruce-Grey youth who volunteer do so as instructors for younger children in various sports leagues and associations. These individuals would therefore have well-tested leadership, training, coaching, and supervising skills.

The second most reported industry category is Religious, Civic and Social Advocacy, which is common as these organizations are often largely driven by volunteer support. Related tasks include social work, counselling or mentoring, fundraising, building or repairing, managing money or finances, and acting on a committee or board.

* Respondents were able to mark multiple responses and therefore the categories are not mutually exclusive

Table 3.21 Volunteer Tasks by Grade

Volunteer Task	All Grades (%)	Grade 10 (%)	Grade 11 (%)	Grade 12 (%)
Teaching or coaching	35.8	34.6	38.4	34.8
Organizing/supervising an event	34.0	38.6	31.5	30.9
Selling or fundraising	18.3	21.1	14.8	18.3
Building, repairing, physical work	16.8	15.4	15.7	19.6
Gardening, yard work, agricultural	13.5	11.8	16.7	12.6
Health care and support	12.8	12.1	15.3	11.3
Managing money or finances	8.5	8.2	6.9	10.4
Office work, administration, clerical	7.3	9.3	5.6	6.5
Artistic design (posters, photo)	7.3	10.0	6.0	5.2
Acting on a committee or board	5.6	5.0	3.2	8.7
Providing info to public, newsletters	5.2	6.4	5.1	3.9
Computer-based work	4.1	5.7	3.7	2.6
Preparing or serving food	2.9	3.2	3.7	1.7

Health Care and Social Assistance organizations also figure prominently as young volunteers commit their time to helping elderly or physically challenged members of their communities. Linked to the rural foundations of the region, many Bruce-Grey youth lend a hand to agricultural organizations by using horticultural, agricultural, building and physical skills. Finally, a smaller percentage volunteers with educational institutions primarily as mentors or teachers to younger children.

Across the top five volunteer industry categories respondents consistently ranked the task of organizing or supervising an event at high levels. Combined with the relatively few hours engaged over an entire year, this supports a logical conclusion that the majority of volunteering is conducted only intermittently or on specific occasions rather than on an on-going basis. This is further reinforced by the prevalence of responses rating the reason why volunteer activities were pursued as, "I had to in order to graduate" (Table 3.22). Thus, while the policy and efforts of the high schools to promote voluntarism is having a significant effect, encouraging a regular commitment on the part of students appears to be somewhat of an uphill battle.

Table 3.22 Reasons to Volunteer by Grade

Reason to Volunteer	All Grades (%)	Grade 10 (%)	Grade 11 (%)	Grade 12 (%)
I had to in order to graduate	77.1	76.4	74.1	80.9
I was asked to help by friend/family	44.2	48.6	40.3	42.6
I wanted to gain skills and experience	35.3	35.4	34.7	35.7
I wanted to help in a personal cause	25.3	24.6	24.5	27.0
My parents wanted me to volunteer	16.8	21.4	15.3	12.6

In order to promote volunteering in the future it is useful to know how young people find an organization. Survey results point to the major role of personal contacts through friends and family and to a lesser degree information from school (Table 3.23).

Table 3.23 Source of Information on Volunteer Opportunities by Grade

Finding an Organization	All Grades (%)	Grade 10 (%)	Grade 11 (%)	Grade 12 (%)
A friend or family member told me	75	83	72	70
I heard about it at school	15	10	17	19
I contacted an organization for info	7	4	7	10
A saw an ad, flyer, or booth in public	3	3	4	1

3.4.3.4 Part-Time and Summer Employment Activities

Formal employment on a part-time basis during the school year or full-time during the summer provides young people with the essential workforce experience required to successfully move forward in the labour market. The time committed to a job helps youth develop both industry-specific and transferable skills that make them more marketable and increase their adaptability and employability. It is therefore encouraging that a relatively large percentage of Bruce-Grey youth participate in part-time and summer work activities across the grade levels (Table 3.24).

Table 3.24 Participation by Type of Work and Grade

Work	All Grades (%)	Grade 10 (%)	Grade 11 (%)	Grade 12 (%)
Part-time	69.8	63.7	69.8	76.9
Summer	71.7	65.4	69.4	81.3

By far the most dominant categories for both part-time and summer work are Wholesale and Retail Trade and Accommodation and Food Services (Tables 3.25, 3.26). This is not entirely surprising as these are the conventional employers of young people. The average number of hours worked during the school year in these industries ranges from 385 to 650, which translates to an approximately 9 to 15 hour work week on top of regular academic commitments. In the summer the average figures run from 180 to 240 (22-30 hours per week). Such experience should be valued for the skills it imparts, including customer service, interpersonal, teamwork, time management, organizational, administrative, financial, and mechanical abilities.

Table 3.25 Part-Time Work Participation and Hours/Year by Industry and Grade

Industry Category	Grade 10		Grade 11		Grade 12	
	% of students	avg. hrs/yr	% of students	avg. hrs/yr	% of students	avg. hrs/yr
Wholesale and Retail Trade	22%	400	30%	535	42%	650
Accommodation and Food Services	32%	385	28%	445	30%	520
Construction, Specialty Trade	10%	180	12%	225	6%	410
Health Care and Social Assistance	11%	144	7%	143	6%	285
Information, Culture and Recreation	9%	253	7%	301	5%	440
Agriculture	8%	205	7%	260	4%	317
Other Services	3%	296	4%	257	3%	428
Business, Building, Support Services	3%	290	2%	423	3%	421
Manufacturing	2%	227	2%	457	1%	840
All Industries	100%	296	100%	382	100%	529

Table 3.26 Summer Work Participation and Hours/Year by Industry and Grade

Industry Category	Grade 10		Grade 11		Grade 12	
	% of students	avg. hrs/yr	% of students	avg. hrs/yr	% of students	avg. hrs/yr
Wholesale and Retail Trade	18%	210	25%	215	35%	220
Accommodation and Food Services	25%	180	23%	240	28%	225
Construction, Specialty Trade	16%	125	12%	209	13%	319
Health Care and Social Assistance	16%	127	11%	176	5%	187
Agriculture	10%	125	8%	160	6%	220
Information, Culture and Recreation	6%	209	7%	258	5%	255
Other Services	4%	119	6%	170	2%	288
Business, Building, Support Services	4%	162	4%	184	4%	223
Manufacturing	1%	243	4%	297	2%	328
All Industries	100%	160	100%	209	100%	235

The third most common area of work for Bruce-Grey youth is with a Construction or Specialty Trade Contractor. This was somewhat surprising as such participation rates in this demanding field were not expected for a younger age group. However, this is also very encouraging as those involved have the significant opportunity not only to develop a number of broad proficiencies but job-specific abilities in the skilled trades as well.

Health Care and Social Assistance ranks fourth in both part-time and summer work as a source of employment. This draws in babysitting which appears to largely account for the importance of the overall category. Yet such experience is highly valuable where the individual can translate it properly in recognizing their broad strengths in mentoring, teaching, supervising, and organization, as well as industry-specific abilities in childcare.

The fifth and sixth ranked categories alternate between seasons with Information, Culture and Recreation more prominent during the school year and Agriculture logically more important in the summer. The former includes work for newspapers, theatres, sports arenas, libraries and recreation centres where students form a variety of skills. The latter is linked to the relative magnitude of farming within the Bruce-Grey economy as a whole and provides young people with physical, technical, and mental skills. It is important to note that those reporting agricultural activity in these sections are not employed by their own family farm, which is a form of work to be covered later.

Lesser degrees of Bruce-Grey youth work for an Other Service employer (automotive repair and maintenance, beauty and hairstyling, pet care), Business, Building and Support (office administration, janitorial, call centre), and Manufacturing.

While the percent distributions by industry category are relatively consistent across the grade levels, survey results reveal a marked increase in the average number of hours spent working from grade ten to grade twelve. This again makes logical sense as older students are more likely to take on greater responsibilities, to be more concerned with saving money for their future education and to be driven by the incentive of developing workforce skills and testing their interests in certain careers (Table 3.27).

Table 3.27 Reasons for Part-Time and Summer Employment by Grade

Reason to get a job	All Grades (%)		Grade 10 (%)		Grade 11 (%)		Grade 12 (%)	
	p-t	sum	p-t	sum	p-t	sum	p-t	sum
Money to spend in free time	61	60	67	67	62	59	54	54
Money for future education	20	19	15	13	16	18	29	26
To gain skills and experience	8	12	9	12	9	13	7	13
To find out if interested in career	4	3	2	2	5	4	4	2
My parents wanted me to work	4	3	6	4	3	3	3	2
Money to help family	3	3	1	2	5	3	3	3

As with volunteering, it is important to know how young people find their jobs in order to support this area of skill development (Table 3.28). Again, the primary means of gaining employment is through a friend or family member, reinforcing the adage that "it is about who you know." At the same time, many reported success by submitting applications for non-advertised jobs, proving there can be ample rewards for personal initiative.

Table 3.28 Means of Gaining Part-Time and Summer Employment by Grade

Means of finding a job	All Grades (%)		Grade 10 (%)		Grade 11 (%)		Grade 12 (%)	
	p-t	sum	p-t	sum	p-t	sum	p-t	sum
Through friend or family member	62	68	72	79	61	67	54	58
Submitted app. to non-adv'd job	28	24	16	15	30	23	36	32
Newspaper or print ad	8	5	10	4	7	6	7	7
Consulted employment agency	1	1	1	1	1	2	1	0
Posted own ad	0.5	1	1	1	1	2	1	1
Through co-op	0.5	1	0	0	0	0	1	2

3.4.3.5 Co-operative Education Programs

Enrolment in a co-operative education program offered by a high school is an excellent way for students to combine academic and workforce experience. Through regular contact with an existing employer and appropriate supervision and mentoring by an experienced professional, students are able to develop highly valuable occupation- and industry-specific skills, which enhance their future employability in the labour market.

Within the survey sample of Bruce-Grey four grade ten (1.2% of population), thirty-two grade eleven (11.1%) and sixty-six grade twelve students (22.4%) reported taking a co-op course. The minimal number of grade ten students is not surprising, as they have more limited elective opportunities compared to the upper grades. At grade eleven and twelve, reasonable co-op participation rates are dominated by college-level students (Table 3.29).

Table 3.29 Co-op Participation by Level and Grade

Level	Grade 10 (%)	Grade 11 (%)	Grade 12 (%)
Academic	75	n/a	n/a
Applied	25	n/a	n/a
University	n/a	22	24
College	n/a	47	65
Workplace	n/a	31	11

Survey results revealed a broad distribution of co-op enrolment across industry categories (Table 3.30). Areas that stand out include Educational Services where students are able to build the skills necessary for a profession in teaching, and Health Care and Social Assistance where students can prepare for working in a medical or social service environment. The more technical or mechanical areas are also well represented with a number of students engaged in co-op courses through Specialty Trade, Manufacturing and Automotive Service employers.

Table 3.30 Co-operative Program Participation and Credits by Industry and Grade

Industry Category	Grade 10		Grade 11		Grade 12	
	# of students	avg. credits	# of students	avg. credits	# of students	avg. credits
Agriculture	1	1	1	1		
Utilities			1	4	2	3.5
Construction, Specialty Trade	1	3	4	3.25	6	3
Manufacturing			4	2.5	2	4.5
Wholesale and Retail Trade			1	2	3	2
Finance, Insurance, Real Estate			1	2	2	3
Professional, Scientific, Tech'l Services			3	2.6	5	2.4
Business, Building, Support Services			1	2	1	4
Educational Services	1	1	6	1.8	11	2.4
Health Care and Social Assistance	1	2	2	2.5	16	2.7
Information, Culture and Recreation			1	1	3	3.3
Accommodation and Food Services					3	3.3
Beauty and Hair Care (Other Services)			1	2	3	3
Automotive (Other Services)			6	3.2	7	2.8

It is encouraging to note that the majority of students report that the primary reason for taking a co-operative education course is to find out whether or not they are interested in a certain career (Table 3.31). Such an attitude suggests that co-op students are self-directed and motivated by concerns for their future engagement in the workforce. Equally as heartening is that a fair percentage of these students based their decision upon gaining practical skills and labour experience, while a smaller group are even more focused in attempting to accumulate hours for an apprenticeship within a particular job or trade.

Table 3.31 Reasons for Co-operative Program Enrolment by Grade

Reason to enrol in Co-op	All Grades (%)	Grade 10 (%)	Grade 11 (%)	Grade 12 (%)
To find out if interested in a career	40	0	44	41
To gain skills and experience	30	25	28	32
Teacher/counsellor suggested it	13	50	16	10
Hours for an apprenticeship	12	25	9	12
Thought course would be easy	5	0	3	5

3.4.3.6 Work at Home

The final area analyzed by the survey as a source of skill development and experience is labour that is conducted within the home or through a family-owned enterprise. A total of forty-five percent of the total sampled population reported participation in such an activity (grade ten = 47%, grade eleven = 50%, grade twelve = 37%). This included the broad type of work, 'chores', which was the highest reported activity (Table 3.32). Among the formal industry categories Agriculture is the most dominant home-based source of employment. This was expected given

the importance of farming in the Bruce-Grey economy and in fact collecting data on the unique work of family farm labour by the student populations was the primary purpose of this question area. This group also reported among the highest number of hours both during school and summer months.

Table 3.32 Home-Based Work Participation and Hours by Type/Industry and Grade

Industry Category/ Type of Work	Grade 10			Grade 11			Grade 12		
	% of students	avg. hrs/pt	avg. hrs/sum	% of students	avg. hrs/pt	avg. hrs/sum	% of students	avg. hrs/pt	avg. hrs/sum
Chores	48%	8	12	55%	8	11	49%	9	10
Agriculture	26%	14	29	28%	12	25	28%	13	21
Construction, Specialty Trade	15%	7	15	8%	7	11	8%	11	10
Wholesale and Retail Trade	8%	8	14	4%	11	16	11%	10	12
Information, Culture and Rec.	2%	14	18				1%	10	20
Accommodation and Food	1%	10	15	3%	9	29	1%	20	20
Other Services (Hairstyling)				2%	9	25	2%	8	10

A considerable number of Bruce-Grey youth also gain industry-specific skills by working with a home-based Construction or Trade enterprise. As with part-time/summer jobs and co-operative education in this industry, this type of practical work experience is a highly effective means of developing technical skills within an applied occupation environment. The remaining students reporting home-based work are distributed across activities in retail stores, golf courses, small amusement parks, restaurants, and hair salons.

The uniqueness of this general source of skill development is that it often provides youth with a more consistent and extensive connection to the labour requirements of a particular industry. The more intimate imparting of knowledge and skills that occurs between parents and children is certainly a powerful form of learning and can be mirrored in the passing on of the 'family business', which in turn has implications for the continuity of employers within the local economy. This has been especially true of the agricultural sector where young people acquire the wide variety of capacities needed to be a successful farmer over their lives at home and many often have the opportunity to inherit the family farm.

3.4.3.7 Self-Assessment of Transferable Skills

As a supplement to the more objective measurements of participation and time commitment in various skill-developing activities discussed above, the survey instrument also incorporated a subjective self-assessment of a number of transferable skills. For each category a basic description of the skill was provided so that the respondents had a clear sense of the criteria by which they would rate themselves. The types include several fundamental skills (reading, writing, communication, math, analytical, teamwork, computer) as well as more broadly applicable skills. A five-point scale was used ranging from one as 'poor' to five as 'excellent'. The results are tabulated across gender (Table 3.33) and basic ability (Table 3.34).

Table 3.33 Average Self-Assessment Scores by Grade and Gender

Skill	Grade 10		Grade 11		Grade 12		All Grades
	male	female	male	female	male	female	
Reading	3.58	3.83	3.50	3.79	3.53	3.80	3.68
Writing	3.26	3.64	3.07	3.53	3.24	3.55	3.39
Oral communication	3.41	3.63	3.43	3.68	3.53	3.60	3.55
Mathematical	3.38	3.14	3.24	2.97	3.02	2.84	3.10
Social/interpersonal	3.62	4.02	3.57	3.90	3.75	3.94	3.81
Analytical, problem-solving	3.48	3.40	3.43	3.31	3.47	3.20	3.38
Teamwork	3.74	4.01	3.80	3.94	3.80	3.96	3.91
Computer	3.63	3.41	3.46	3.39	3.51	3.43	3.47
Organizational	2.91	3.37	3.07	3.32	3.06	3.33	3.18
Administration, planning	2.87	3.25	2.96	3.08	2.91	3.24	3.06
Leadership	3.34	3.63	3.41	3.53	3.55	3.63	3.52
Creative thinking	3.48	3.76	3.61	3.72	3.62	3.71	3.65
Technological	3.54	2.88	3.59	2.66	3.57	2.72	3.15
Physical, mechanical	3.70	2.84	3.84	2.67	3.65	2.66	3.21
Performance, artistic	3.11	3.82	3.12	3.65	3.10	3.63	3.43
Adaptability	3.34	3.53	3.35	3.52	3.46	3.63	3.47

Results reveal little to no difference between the grade levels suggesting that respondents approached the self-assessment in a relative manner comparing their own abilities against what they perceive to be expected from their age group. What is quite remarkable is the total consistency across the grade levels of relative ranks between gender. Male students rank themselves slightly higher than female students (less than 0.3 difference) in mathematical, analytical, and computer skills, and considerably higher in technological and mechanical skills. In all other categories female students rank themselves higher.

Gendered differences in self-assessed skill levels should certainly be an area of concern in extending skill development and training. Conventional gender stereotypes appear in the results where young women rank themselves low in various technical areas, including math, computers and mechanical skills. Male youth consider themselves less adept in several social areas (oral communication, interpersonal, teamwork, leadership) and management (organizational, administration).

Overall, it is encouraging that Bruce-Grey youth consider themselves as adequately skilled across all categories with aggregated ranks in the ‘good’ to ‘very good’ range (3-4).

An alternative way in which to compare self-assessment scores is by basic ability, measured by the English course level of the student. These results reveal an almost entirely consistent pattern wherein the upper ability level students rank themselves higher than the lower levels. The only skill categories where this differs are technological and mechanical. This trend makes intuitive sense as division by ability level is intended to represent corresponding skill capacities. At the same time this need not be a foregone conclusion and the figures collected through this survey provide an effective means of targeting those skill areas in which various types of youth feel they are the weakest.

Table 3.34 Average Self-Assessment Scores by Grade and Ability Level

Skill	Grade 10		Grade 11			Grade 12		
	Acad.	Applied	Uni.	Coll.	WP	Uni.	Coll.	WP
Reading	4.01	3.06	4.06	3.37	3.12	4.01	3.52	3.11
Writing	3.71	2.92	3.65	3.06	2.82	3.71	3.30	2.81
Oral communication	3.71	3.13	3.79	3.41	3.18	3.71	3.54	3.22
Mathematical	3.35	3.02	3.29	2.93	3.12	3.19	2.78	2.56
Social/interpersonal	4.01	3.44	3.98	3.61	3.29	4.05	3.79	3.39
Analytical, problem-solving	3.57	3.14	3.64	3.16	3.18	3.50	3.28	2.92
Teamwork	3.97	3.69	4.05	3.75	3.68	4.05	4.00	3.69
Computer	3.58	3.35	3.71	3.19	3.24	3.74	3.37	2.92
Organizational	3.28	2.90	3.28	3.17	2.94	3.43	3.10	2.83
Administration, planning	3.22	2.76	3.20	2.85	2.97	3.39	2.99	2.44
Leadership	3.69	3.07	3.69	3.34	3.15	3.88	3.40	3.36
Creative thinking	3.83	3.20	3.85	3.56	3.32	3.85	3.56	3.44
Technological	3.21	3.13	3.06	3.22	3.09	3.07	3.14	3.14
Physical, mechanical	3.15	3.43	3.07	3.45	3.29	2.83	3.25	3.58
Performance, artistic	3.71	3.01	3.73	3.28	2.50	3.71	3.16	3.11
Adaptability	3.61	3.09	3.69	3.32	2.91	3.75	3.42	3.36

3.4.4 Future Education

In order to determine the expected skill levels of the future Bruce-Grey workforce, it is essential to move beyond current levels to understanding how youth intend to improve their abilities through planned education. Level of education within a particular field of study has highly significant implications for an individual's employment opportunities, largely guiding eventual industry and occupation selection. Therefore, establishing the type of education that young people plan to pursue is an effective way of forecasting the quality of the future labour supply in Bruce and Grey counties.

A total of 91% of respondents expect to attend one of three types of post-secondary educational institutions (grade ten = 93.5%, grade eleven = 90.5%, grade twelve = 89%) (Table 3.35). Across the grade levels, female students report higher rates of intended university application, males dominate proposed trade school enrolment, and the genders are relatively equal with regard to college.

Table 3.35 Plans for Post-Secondary Education by Grade and Gender

Plans for Post-Secondary		Grade 10 (%)		Grade 11 (%)		Grade 12 (%)	
		male	female	male	female	male	female
No		9	4	14	5	14	9
Yes	University	35	52	21	42	17	41
	College	35	39	32.5	45	43	43
	Trade	21	5	32.5	8	26	7

The grade twelve category may be the most important as it is reasonable to assume that this group has the clearest ideas about their educational aspirations. At this level relatively few males intend to pursue university preferring a college or trade option instead. Female students bound for post-secondary education report much higher rates of proposed university attendance than males, equal college plans, and minimal inclinations toward trade school, which may be largely based upon the gendered stereotypes associated with trade-based occupations.

Within each type of post-secondary institution respondents are distributed among a number of different fields of study, which provide the opportunity to develop relevant skill sets (Table 3.36). Male respondents heading to university lean toward Bachelor of Science programs, while female students are split between BSc and BA programs. More limited percentages report interest in Bachelor of Commerce degrees although grade eleven males are the exception.

Among college programs Bruce-Grey males show interest in Engineering Technology and Protective Services, while females intend to pursue diplomas in Community Services and Health Sciences. Other important categories across grade levels and gender include Business and Media Studies.

The most important trade school options are Automotive Service for males and Hairstyling for females. Beyond these primary categories there is substantial diversity in the types of training desired by youth for future trades and other specialized occupations.

Table 3.36 Proposed Post-Secondary Institution and Field by Grade and Gender

Post-Secondary Institution and Major Field of Study		**Grade 10 (%)**		**Grade 11 (%)**		**Grade 12 (%)**	
		male	female	male	female	male	female
University	B.A.	10.5	20.8	4.6	19.6	6.6	27.4
	B.Comm.	6.3	6.2	7.2	2.8	1.5	3.7
	B.Sc.	18.2	25.0	9.3	19.3	8.8	9.5
College	Business	3.8	4.7	3.3	5.7	4.3	4.0
	Comm. Services	1.4	6.6	0.7	13.0	0.9	12.7
	Eng. Tech.	7.0	1.6	11.4	2.2	12.5	1.3
	General A&S	3.1	5.9	1.3	0	3.0	4.0
	Health Sciences	0.5	9.0	0	9.8	0.9	11.3
	Hosp. & Tourism	1.4	2.7	1.3	7.2	1.3	4.4
	IT/Computers	1.4	1.2	2.6	0.9	4.3	1.3
	Media Studies	5.5	4.3	4.2	3.6	4.3	3.0
	Protective Services	9.5	3.1	6.2	0.9	10.3	1.3
	Vet Technician	1.4	0	1.3	2.2	0.9	0
Trade	Auto Body Repair	3.2	0.6	1.3	0	0	0
	Automotive Service	6.1	0	9.6	2.1	8.7	0.7
	Chef/Cook	1.2	0.6	0.7	0	0.8	0.7
	Carpenter	3.8	0	2.6	0	2.9	0
	Drafting	0	0	1.3	0	0.8	0
	Electrician	2.5	0.6	4.9	0	2.1	0
	Hairstylist	0	2.8	0	3.6	0	3.6
	Heavy Equip Oper.	0	0	0.7	0	2.1	0
	Horticulture	0	0	0	0.7	1.5	0.7
	Machinist/Tool & Die	1.8	0	3.3	0	0.8	0
	Millwright	1.2	0	1.3	0.7	1.5	0.7
	Pastoring	0	0	0.7	0	0.8	0
	Plumber	0	0	2.0	0	1.5	0
	Welding, Fitting	1.2	0.6	4.2	0.7	2.9	0.7

While fluctuations and changes to young people's plans for their future education is inevitable and it would be impossible to entirely predict whether or not students will be accepted and complete the cited programs, survey figures provide a useful picture of general directions.

Finally, it is worthwhile noting the different factors influencing students' decisions regarding their future education (Table 3.37). These are fairly consistent regardless of the type of institution the respondent plans to attend, with the most important aspect being the individual's own thoughts and interests. Also important are the desire for an adequate income, direction received from school courses, and the opinions of parents/guardians.

Table 3.37 Factors Influencing Post-Secondary Plans

Factors Influencing Planned Post-Secondary Selection	University (%)	College (%)	Trade (%)
Own thoughts and interests	80%	72%	67%
Desire for good job/high income	55%	43%	44%
School courses	52%	44%	39%
Opinions of parents	39%	36%	31%
Job experiences	19%	23%	28%
Opinions of friends	19%	18%	19%
Volunteer experiences	16%	19%	13%
Teacher/counsellor advice	21%	13%	11%
Co-op placement	4%	11%	19%
Career education/guidance class	10%	8%	10%

3.4.5 Future Employment

Assessing young people's aspirations regarding their future employment provides a means of gauging expected labour supply in both industry and occupation categories. Survey figures in this regard thus provide a broad conception of where the emerging workforce is heading.

The top industry category across all grades is Health Care and Social Assistance, although it is heavily skewed toward female respondents, as is the third most important industry, Educational Services (Table 3.38). Professional, Scientific, and Technical Services is the second highest ranked category and includes areas such as law, accounting, and engineering. Information, Culture, and Recreation is another top category, drawing the interest and enthusiasm of youth to careers in media, performing arts, sports, and leisure. The fifth industry, Construction and Specialty Trade, is highly male dominated as are Police and Fire Services (7), Automotive Services (8), and Manufacturing (9). Agriculture remains a relatively important future industry of employment for the region's youth. The remaining categories are distributed at fairly even, albeit minimal, rates across grades and gender.

Table 3.38 Proposed Future Industry by Grade and Gender

Industry Category	Grade 10 (%)		Grade 11 (%)		Grade 12 (%)		All Grades	
	male	female	male	female	male	female	%	**rank**
Agriculture	6	4	9	4	4	1	5	**7**
Utilities	1	0	3	1	4	3	2	**14**
Construction, Specialty Trade	17	2	21	1	19	0	10	**5**
Manufacturing	6	0	9	1	8	1	4	**9**
Wholesale and Retail Trade	4	1	2	2	2	7	3	**11**
Transportation and Warehousing	1	0	3	1	2	1	1	**16**
Finance, Insurance, Real Estate	3	2	3	3	2	0	2	**13**
Prof., Scientific, Technical Services	10	13	11	15	14	7	12	**2**
Business, Building, Support Services	7	5	4	5	5	7	5	**6**
Educational Services	4	14	4	16	1	18	10	**3**
Health Care and Social Assistance	6	32	3	29	4	32	19	**1**
Information, Culture and Recreation	13	11	7	9	10	8	10	**4**
Accommodation and Food Services	3	4	1	5	4	4	4	**10**
Other Services (Automotive)	9	1	10	1	7	1	4	**8**
Other Services (Beauty, Hairstyling)	0	5	0	4	0	3	3	**15**
Religious, Civic, Social Advocacy	1	2	1	0	1	1	1	**17**
Public Administration	1	2	2	2	3	4	2	**12**
Police and Fire	8	2	7	1	10	2	5	**7**

Occupational categories are even more directly connected to an individual's particular set of skills that he or she uses on a daily basis to conduct their job. Collected data mirrors the labour supply outlook of industry divisions as the female-dominated Social Science & Education and Health occupations are the most important, followed by Art, Culture and Recreation (Table 3.39). Trade-based careers are again very significant for male respondents, as is work with police and fire units and as automotive mechanics. Finally, Natural and Applied Sciences, Retail and Food Services, Business and Finance, and Management occupations are significant across grades and gender.

Table 3.39 Proposed Future Occupation by Grade and Gender

Occupation Category		Grade 10 (%)		Grade 11 (%)		Grade 12 (%)		All Grades	
		male	female	male	female	male	female	%	**rank**
Management		4	4	4	5	8	3	5	**9**
Business, Finance, Admin.		6	4	6	8	5	6	6	**7**
Natural and Applied Sciences		9	5	9	8	11	6	8	**5**
Health		4	30	4	21	5	20	15	**2**
Social Sci., Ed, Gov't, Religion		11	21	7	25	6	31	17	**1**
Art, Culture, Recreation, Sport		14	20	6	15	12	14	14	**3**
Sales and Service:	retail, acc., food	8	6	6	8	2	9	7	**6**
	hairstylist	0	3	0	3	0	3	2	**13**
	police and fire	8	2	6	1	10	3	5	**8**
Trades, Transport, Equip. Op'r		18	2	32	3	25	2	13	**4**
Trades – Auto Mechanic		8	1	10	1	7	1	4	**10**
Primary Industry		5	2	5	1	4	1	3	**11**
Processing, Man., Utilities		5	0	5	1	5	1	3	**12**

Factors influencing career selection are very similar to those influencing proposed education with an individual's own thoughts and interests having the greatest bearing followed by school courses, job experiences, and volunteering (Table 3.40).

Table 3.40 Factors Influencing Future Career Plans

Factors Influencing Planned Career Selection	All Grades (%)	Grade 10 (%)	Grade 11 (%)	Grade 12 (%)
Own thoughts and interests	78	76	80	78
School courses	46	47	45	47
Job experiences	20	18	19	21
Volunteer experiences	18	17	17	21
Co-op placement	13	8	13	19
Results from career-match test	12	12	13	10
Career education/guidance class	11	10	10	12
Job shadowing	11	11	10	13

3.4.6 Future Place of Work and Residence

The out-migration of youth is a common trend faced by predominately rural regions such as Bruce-Grey. This process has an acute impact upon future labour supply as it essentially determines both the quantity and quality of the workforce. Such a 'brain drain' often symbolizes an imbalance between the supply of individuals with certain occupation- or industry-specific skills and the demand from employers for those abilities. For local economic development planning, areas of labour surplus can become targets for attracting new employers to fill the gap.

A considerable number of youth in Bruce and Grey counties report intentions of out-migration (Table 3.41). Yet among both those planning to stay and those planning to leave the primary influencing factors are personal (Tables 3.41, 3.42). Those wishing to remain in the region want to be close to family and their community, while those wishing to move want to experience a different (or more exciting) lifestyle. Economic reasons certain play a role in the decision-making with individuals falling on both sides of arguments concerning the diversity of jobs and the adequacy of the incomes they provide.

Table 3.41 Proposed Future Place of Work and Residence by Grade and Gender

Plan to stay in B-G?	All Grades (%)	Grade 10 (%)	Grade 11 (%)	Grade 12 (%)
Yes	36	35	36	37
No	64	65	64	63

Table 3.42 Factors Influencing Future Movement – Reasons to Stay

Factors Influencing Planned Decision to Stay in Bruce-Grey	All Grades (%)	Grade 10 (%)	Grade 11 (%)	Grade 12 (%)
Want to be near friends/family	67	71	60	69
Like the community	67	71	65	66
Plenty of interesting jobs	30	25	37	31
Jobs provide adequate income	25	23	24	28

Table 3.43 Factors Influencing Movement – Reasons to Leave

Factors Influencing Planned Decision to Leave Bruce-Grey	All Grades (%)	Grade 10 (%)	Grade 11 (%)	Grade 12 (%)
Want to experience life elsewhere	71	74	73	64
No interesting jobs	49	45	50	53
Jobs do not provide adeq. income	24	19	25	28
Low overall supply of jobs	21	16	24	23

It is useful to thus also consider the relationship between the individual's proposed career choice and their intended movement which would then highlight the employment areas that youth believe are either available or not available for them to pursue within the region (Table 3.43). The industry categories showing a significant difference in favour of remaining include Construction and Specialty Trade, Agriculture, Automotive Services and Utilities. For the opposite, young people feel they must leave to pursue jobs in Professional, Scientific, and Technical Services, Business and Building Services, Information, Culture and Recreation, and Accommodation and Food Services. Similar differences are reported for occupation categories (Table 3.44).

Table 3.44 Proposed Future Place of Work and Residence by Industry

Industry Category	Stay in Bruce-Grey?	
	yes (%)	no (%)
Agriculture	9	2
Utilities	3	1
Construction, Specialty Trade	16	6
Manufacturing	5	4
Wholesale and Retail Trade	3	2
Transportation and Warehousing	1	1
Finance, Insurance, Real Estate	3	2
Prof., Scientific, Technical Services	8	13
Business, Building, Support Services	2	7
Educational Services	10	10
Health Care and Social Assistance	18	19
Information, Culture and Recreation	3	13
Accommodation and Food Services	2	5
Other Services (Automotive)	9	3
Other Services (Beauty, Hairstyling)	0	2
Religious, Civic, Social Advocacy	1	1
Public Administration	1	3
Police and Fire	4	5

Table 3.45 Proposed Future Place of Work and Residence by Occupation

Occupation Category		Stay in Bruce-Grey?	
		yes (%)	no (%)
Management		3	6
Business, Finance, Admin.		5	6
Natural and Applied Sciences		7	8
Health		13	16
Social Sci., Ed, Gov't, Religion		18	17
Art, Culture, Recreation, Sport		5	18
Sales and Service:	retail, acc., food	7	7
	hairstylist	0	2
	police and fire	4	5
Trades, Transport, Equip. Op'r		20	9
Trades – Auto Mechanic		7	3
Primary Industry		6	1
Processing, Man., Utilities		4	2

3.5 Discussion of Findings

The results reported above reveal a comprehensive picture of where Bruce-Grey youth are and where they are going in terms of their skill development. Several key points must be discussed here as a means of highlighting the strengths and weaknesses in skill capacities and future engagement in the labour force.

At each grade Bruce-Grey students report adequate achievement in the core subjects of English, Math and Science. Mark percentages decline along with the designated ability level of the class. While this is basically a logical relationship, concern should nevertheless be paid toward enhancing the core skill abilities of individuals within the lower class categories.

On average, Bruce-Grey students report high participation rates in Technological Education courses. This bodes well for future engagement in relevant industries as young people are using their high school education to build the necessary skill sets for later employment. On the other hand, much lower rates of enrolment are reported for Business Studies and Computer Studies classes. This should be an area of concern for educators and training institutions as this signifies a lack of development of corresponding financial, clerical, administrative, and particularly computer skills.

The large majority of Bruce-Grey youth participate in an extra-curricular activity, with the most dominant endeavour being a sports team. The logical assertion connected to this finding is the suggestion that young people in the region have adequate experience with teamwork and leadership, two vital skills in today's dynamic workplace. Respondents also report reasonable participation in a number of additional activities, each developing relevant skills.

The issue with volunteering is the lack of synchronicity between one-off and sustained engagement, wherein a high incidence of volunteer activity is reported but at low levels of hours per year. This appears to be the result of mandatory volunteer service played against the general apathy of high school students. Thus, while the policy of compulsory volunteering has stimulated youth to engage in such skill development, the encouragement of long-term

commitment still faces significant obstacles among the majority. Nevertheless educators must continue their promotion of voluntarism based upon its unique contribution to building the skills and capacities of young people.

One of the clear strengths of Bruce-Grey youth as identified by this survey is their participation in part-time and summer employment which provides invaluable workplace experience. While the industry distribution of these jobs is dominated by the conventional teenage employment areas of Wholesale and Retail Trade and Accommodation and Food Services, which does not match aspirations of future long-term careers, the key is the development of a number of transferable skills.

A surprisingly large number of part-time and summer youth employment was reported for the industry category of Construction and Specialty Trade Contractor. This is an encouraging sign for the development of physical and technical skills among the future Bruce-Grey labour force.

An unfortunately low number of students reported taking a Co-operative Education class. This is certainly an area that demands significant attention in terms of developing labour force abilities of youth. This is not to say that Bruce-Grey educators are in any way unaware of such a need. Rather, survey results provide a means of corroborating this need by reporting low participation rates, subsequently highlighting this area for future promotion of this unique form of developing industry-specific skills and facilitating youth transition into the workforce.

Figures concerning work performed at home illustrate the continued role of agriculture within the Bruce-Grey region and the distinct form of learning that takes place within that environment through the traditional process of passing on the family business and attendant required knowledge and experience.

Analyzing self-assessed skill levels is challenged by their inherent subjectivity. Thus, the key becomes identifying differences within common groups. Survey results reveal consistent differences reported between gender across the three grade levels. Educators should thus be cognizant of the tendency of females to feel less skilled in math, computers, technological and mechanical areas, and vice versa for males.

It is a positive sign to see the majority of students planning to attend some form of post-secondary educational institution. However, the numbers do increase with grade level and are consistently higher among males. Educators should be aware of this tendency and thus pay particular attention to promoting post-secondary skill development among older males.

Males are also less likely to pursue a university education preferring college instead, while females are more equally balanced between university and college with little interest in trade schools.

Within each post-secondary institution type, fairly even distributions are reported across major fields of study. Areas that stand out include Health Sciences for female students and Protective Services for males at colleges, and Hairstyling for females and Automotive Service for males at trade schools.

The key to analyzing industry and occupation categories of future intended employment involves understanding whether or not there is a demand for such labour among Bruce-Grey employers. This is dealt with more extensively in relation to the other major surveys of the overall project.

Finally, a disconcerting trend is revealed by the survey findings of high intended youth out-migration from the region. At the same time, this need not be blown out of proportion as it is consistent with natural and common processes for rural areas. Moreover, the motivations for movement are dominated by personal reasons rather than economic and thus beyond the scope and capacity of local economic development strategies. Nevertheless, there are several industry categories where significant differences are reported between those intending to stay or leave, suggesting the need for development in certain industry areas to promote greater youth retention. As the limitations of poor communication infrastructure are increasingly overcome by the information technology, the opportunity to develop such industries only expands.

3.6 Comparing Employer Labour Demands & Youth Skill Development

Drawing upon the results of both the Employer and High School surveys, it is vital to analyze and discuss the imbalances that present themselves between the demand for certain essential skills on the part of Bruce-Grey employers and the supply of relative skills by the future labour force. In doing so it becomes possible to identify factors that could potentially be intervened upon in order to create stronger integration between labour supply and demand and thus to build healthier local economies.

3.6.1 Tracing a Lack of Management Skills among the Emerging Workforce

Evidence from the Employer survey revealed that while the *quality* of existing managers is deemed adequate, their *quantity* and *availability* is of concern. Acknowledging that the supply of new managers may come from both the existing workforce of Bruce-Grey and those external to the region, it is nevertheless useful to assess how such a perceived lack of individuals with suitable management skills might be linked to local youth, their skill development, and future directions.

The first potential factor is overall low enrolment rates in high school Business Studies courses which would impart many of the skills required to be an effective manager. By grade twelve, the average Bruce-Grey student will have taken only 1.28 Business courses. Of course there is diversity within this generalization such as the smaller majority who do take a number of such courses. However, this is still quite limited as only 14% of students complete three to five Business courses.

In their volunteer activities, thirty-four percent of students reported organizing or supervising an event, a task that would contribute to the development of certain management-related skills. However, the low levels of time commitment per year largely limit the impact of this type of experience on genuine skill development.

High participation rates in part-time and summer jobs, particularly in the dominant industries of Retail Trade and Accommodation & Food Services, might be expected to translate into management experience. However, evidence was not collected to fully substantiate this based upon the tasks of the employee and it is not unreasonable to assume that the majority of such young people do not occupy management positions.

Co-operative Education courses are another potential source of on-the-job management skill development, but which lack strong involvement by students. By the completion of high school, 22.4% of Bruce-Grey students will have taken at least one Co-op course. These are widely distributed across industries and associated tasks, which may not correlate strongly to the development of management skills.

Effective management requires a number of skills including interpersonal communication, problem-solving, instilling teamwork, and displaying leadership. Perhaps the most important traits however are strong organizational and administrative capabilities. In their own self-assessment, male youth at all grade levels rated these two sets of skills as the lowest among all other skills, while female students rated them worst only behind technological and physical skills.

For their future skill development through education, youth rated Bachelor of Commerce programs by far the lowest among the intended areas of study at the university level, while only eight percent of all youth reported plans of enrolling in a Business program at the college level.

In their plans for future employment, only five percent of respondents reported 'Management' as their desired occupation. Of this group, over seventy percent also reported plans of out-migration region, draining the already limited pool of future potential managers.

It is critical to understand that this comparison is based upon employer perspectives regarding a lack of individuals with relevant management skills and not necessarily a complete analysis of job availability. Nevertheless, the perceived gap proves to have some basis within the emerging local workforce. Intervention strategies could thus focus upon greater promotion of Business Studies programs, both at the High School and Post-Secondary levels, and directed programs to retain qualified individuals within the business and management environment of the region.

3.6.2 Matching the Demand for Soft Skills

Employers from all industries within the Bruce-Grey region consistently reported problems obtaining 'soft skills' from their labour pool. These include such capabilities as customer service, decision-making, teamwork and problem-solving. It is important to analyze how this identified issue might be linked to the process of skill development among the future workforce.

While academic learning within the structure of regular school courses can certainly provide a great deal to the development of 'soft skills', they are perhaps more routinely developed through practical activities in a variety of settings. Over sixty-five percent of all students participate in some form of extra-curricular activity, with sports dominating. Thus it can be reasonably expected that a large percentage of young people in the region have well-developed teamwork skills.

As discussed above, approximately seventy percent of all young people have both a part-time and summer job. The top two industries of activity, Retail Trade and Accommodation & Food Services, are also those who report a lack of 'customer service' skills available to their businesses. This reveals an inconsistency in employer perspectives, as their opinions regarding the lack of a particular skill do not hold true with corresponding work experience among youth. This suggests that employers are either dissatisfied with the quantity of 'customer service' labour beyond that which is supplied only by young people, or they are dissatisfied with the quality of that skill they provide.

As above, the relative lack of participation in Co-op courses can be a real concern relative to the development of 'soft skills' as it is often on-the-job experience that helps to truly develop such broad, transferable skills.

Student self-assessment of skills does not support employer perceptions of a lack of 'soft skills'. In fact, skills such as social/interpersonal, teamwork, problem solving, leadership, and creative thinking are consistently reported as the strongest abilities of youth. This again is most likely attributed to the subjectivity of self-assessment, where young people may perceive themselves to be capable in certain areas while employers disagree.

Perceived deficiencies in 'soft skills' on the part of regional employers are not clearly echoed in evidence from high school students. Nevertheless, trainers and educators should be aware of these opinions and continue to assess the actual transferable skill levels of young people.

3.6.3 Areas of Success in Developing Skills to Meet the Demand

While there may be several areas in which future labour supply may be facing an imbalance with skill demands, there are also many encouraging signs of effective integration. Employers consistently reported ease in obtaining fundamental skills from their workforce, suggesting that education within the Bruce-Grey region is successfully and adequately developing reading, writing, verbal, and math skills.

While there are definite gender differentials, youth are also sufficiently skilled in technical, mechanical, and physical skills, with good enrolment in Technological Education courses, significant participation in the Construction and Specialty Trade industry for part-time and summer jobs, a large number of students working on agricultural activities at home, high self-assessment scores, and relatively large percentages reporting plans for both Trade School attendance and future employment in a trade occupation.

3.7 Conclusion

The youth of Bruce and Grey counties clearly have many strengths in their skill sets and experience bases that they plan to carry forward with them into the future development of their abilities and engagement in the workforce. The evidence from this survey research provides educators with an effective means of identifying both assets and gaps in abilities, the source of such development, and the motivations for participation, around which appropriate initiatives can be designed. Furthermore, information elicited by the survey concerning the future directions of youth is a valuable tool in facilitating a successful transition from high school to the workforce, through understanding current skills and how these might need to be enhanced, and by assessing the availability of such employment within the existing labour market. It is the sincere hope of the researchers that what has been produced in this survey does contribute to an overall goal of assisting youth, educators, and the overall viability of the Bruce-Grey region.

FACT SHEET

Bruce Grey Skills Inventory: Present and Future

EMPLOYEE EXPERIENCES

The study carried out by the School of Environmental Design and Rural Development at the University of Guelph for the Bruce Grey Huron Perth Georgian Triangle Training Board in 2004 included a labour market profile and thousands of surveys with high school students, area employees and employers in Bruce and Grey counties. Five sub-regions were also examined: Bruce In-Land, Bruce Peninsula, Bruce Shoreline, Grey In-Land, and Georgian Bay.

This fact sheet focuses on some of the key findings gathered from the 900 area employees surveyed. This information provides a basis for understanding the human resources available to employers in the area.

TOP SKILLS AMONG EMPLOYEES

Employees in both counties perceive the following as their top three skills overall:

- Verbal Skills
- Reading Skills
- Social & Interpersonal Skills

Males perceive their skills as more advanced in:

- Teamwork Skills
- Mathematics
- Mechanical & Physical Skills
- Computer Spreadsheets

Females perceive their skills as more advanced in:

- Verbal Skills
- Artistic & Creative Skills
- Organizational Skills
- Computer Word Processing

AREAS FOR SKILL IMPROVEMENT AMONG EMPLOYEES

Employees in both counties perceive the following as their weakest skills overall:

- Computer Skills
- Mathematics
- Artistic & Creative Skills

Other skills that could be improved upon include:

- Written Communication Skills
- Teamwork Skills
- Organizational Skills

COUNTY DIFFERENCES FOR SKILLS

- On the whole, Bruce County residents feel they have a more complete skill set than was reported in Grey County

TRENDS RELATED TO EDUCATION OF EMPLOYEES

- Close to half of employees in Bruce (46.5%) and Grey (48%) have not obtained any education past high school
- The most common fields of study among those who went to trade school were cook (27.1%), carpenter (10.4%), hairstylist (10.4%), mechanic (10.4%), and electrician (6.3%)
- Those who went to College most often studied business (26.3%), health science (23.4%), engineering technology (14.6%) and community services (12.7%)
- 49.7% of the employees who went to University completed a Bachelor of Arts degree
- Participation in educational upgrading or training activities was low in the last year for both Bruce County (48% did not) and Grey County (66% did not)

Strong correlations exist between an employee's education and their skill levels. Increased education levels lead to increased skills in the following areas:

- Reading Skills
- Written Skills
- Computer Skills
- Verbal Skills
- Mathematics

Weaker relationships exist between an employee's education and skill level for the following:

- Social & Interpersonal Skills
- Organizational Skills
- Teamwork Skills

No relationship exists between an employee's education and their skill levels for:

- Mechanical & Physical Skills
- Artistic & Creative Skills

OTHER TRENDS AMONG EMPLOYEES

- The majority of employees in Bruce and Grey (percentages ranged between 36.5% and 55.6% across the five sub-regions) feel very satisfied with their current occupation
- Between 36.8% and 75% of employees surveyed across the five sub-regions feel that nothing could motivate them to move outside of the region for employment
- Sales and service occupations are most common and make up a substantial component of the workforce in Bruce (21.5%) and Grey (19.9%). Conversely, there are low concentrations of employment in art, culture, recreation and sports, as well as natural and applied sciences
- Between 64.7% and 95.2% of employees see their employment situation as unchanging over the next year. However, there is a possibility for change within five years mostly due to retirement. Males in Bruce In-Land are an exception with only 1.9% reporting that they will retire in the next five years.
- Female employees perceive higher underemployment rates more often than their male counterparts
- Compared to provincial averages, the number of employees who speak a language other than English in Bruce (18%) and Grey (15%) counties is low

4.0 Employee Survey

4.1 Introduction

A fundamental input into any labour market study is information pertaining to the education, experience, skills and training levels of the underlying labour pool. This most necessary input provides a basis for understanding the human resources available to employers in the area.

There are a variety of sources from which this information can be gleaned. For the purpose of this study a telephone interview was conducted with the general population of Bruce and Grey counties. The survey was designed to capture the relevant components necessary for the continued development of the labour market.

Eligibility for the survey was restricted to individuals who met the following criteria:

- Permanent resident of either Bruce or Grey county
- Were legally permitted to work in Canada.
- Over 16 years of age
- Not retired

The core aim of this survey was to determine the particular levels of work experience, education and skills possessed by the residents of the area. Also included in the survey were questions that solicited information on mobility, skills upgrading and household activities.

4.2 Methodology

4.2.1 Geographic Sub-Regions

The main focus of the project was to gather labour market information at the county level for Bruce and Grey. Interest was also expressed by the project Steering Committee in developing information specific to various sub-county localities. Bruce and Grey were therefore further disaggregated into five distinct sub-regions so that more localized labour market information could be obtained.

The sub-regions identified as significant by the Steering Committee were:

Bruce County

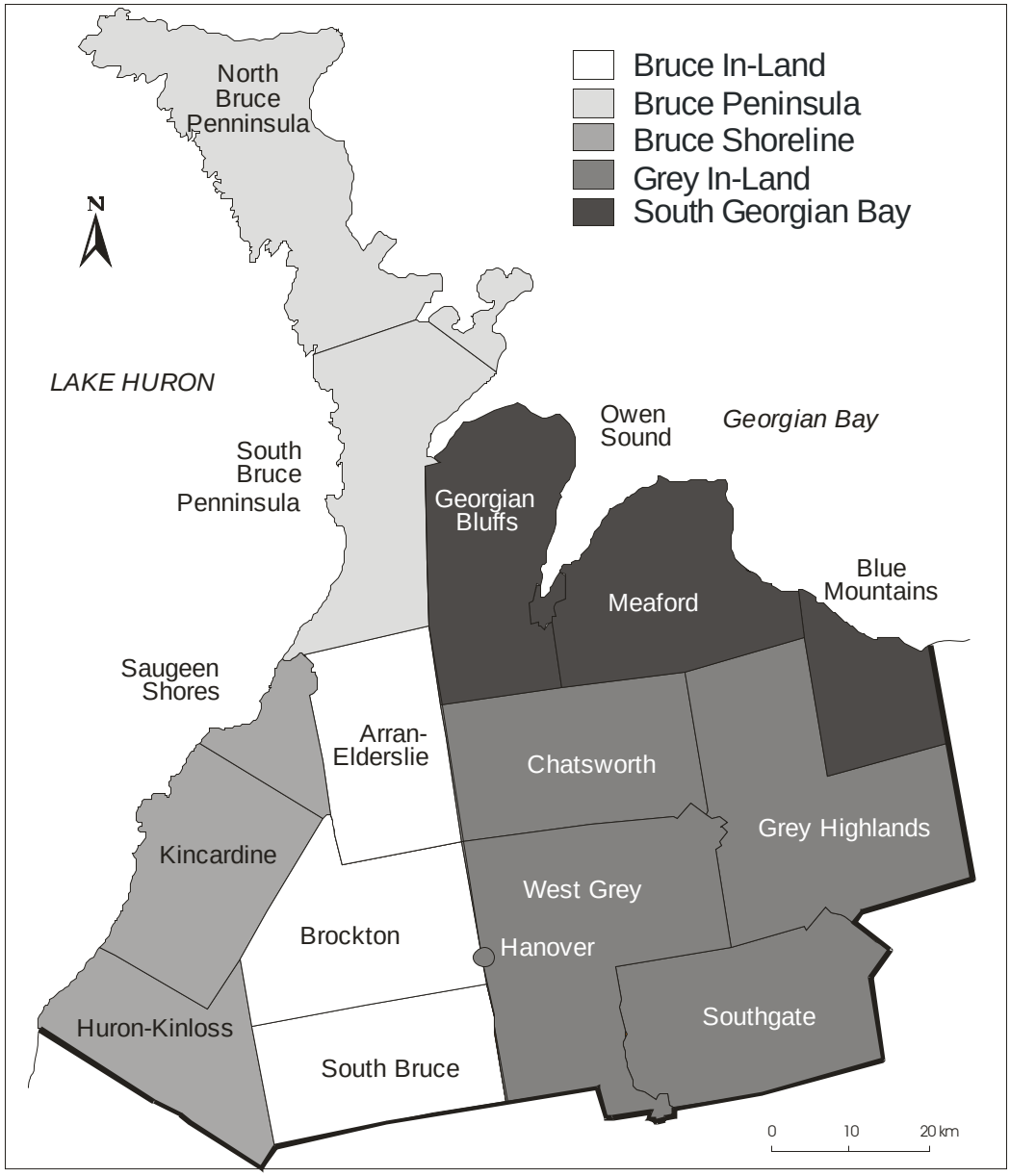
- Bruce In-Land (South Bruce, Brockton, Aaron-Elderslie)
- Bruce Peninsula (North Bruce Peninsula, South Bruce Peninsula)
- Bruce Shoreline (Huron-Kinloss, Kincardine, Saugeen Shores, Saugeen 29)

Grey County

- Grey In-Land (West Grey, Southgate, Grey Highlands, Hanover, Chatsworth)
- South Georgian Bay (Blue Mountains, Meaford, Georgian Bluffs, Owen Sound)

Please refer to Map 4.1 for the above five sub-regions.

Map 4.1 Bruce and Grey County Sub-Regions Used in Employee Section



4.2.2 Survey Design

The design of the survey instrument was based upon two criteria. The first was the need to meet the requirements outlined in the project terms of reference. The terms of reference stated as a central component of this undertaking that labour market information be gathered in three major areas: skills, training and education. These principal areas were then supplemented with information on demographics, mobility and employment history. Taken together they provide a platform for describing and interpreting the local labour market.

The second was the need to design the instrument in a manner that would allow for comparison with the other two surveys in the project, the high school and employer survey. This was a critical element in design as a primary output of the project was to perform a gap analysis between the three surveys. Additionally, the need for comparison to Statistics Canada Census data was necessary so as to gauge the representativeness of the sample and situate the sample data within the context of the population at large.

A final consideration was the need to collect data in a manner that was consistent with the parameters needed for an interactive web tool. One of the project deliverables was a searchable online database that would represent the labour market information gathered by the project.

These design considerations were managed by a process of matching the project information requirements with relevant Census questions as well as similar questions from the other two surveys. Wherever applicable, standardized categories (i.e. – North American Industrial Classifications Standard, National Occupation Classification Standard) were utilized, making for uniformity across the census and three surveys.

A draft version of the survey was generated and provided to the steering committee for review and comments. Revisions suggested by the steering committee were incorporated into the draft version. A pre-test of the draft version was conducted on July 13, 2004. The purpose of this pre-test was to ensure clarity of the questions, test the data input spreadsheet, verify the survey instrument's output and validate the randomized calling process. Twenty-five surveys were conducted during the course of this pre-test.
Analysis of the pre-test data and feedback from the pre-test survey team was included as input into revisions of the draft. Consultations with the project team and approval from the steering committee produced a final version of the survey instrument.

4.2.3 Survey Process

A team of ten graduate and undergraduate students was hired to conduct the surveys. There was a two-hour training session providing an overview of the project as well as specific training on the survey instrument.

The survey commenced on July 16, 2004 and concluded on August 19, 2004. Calls were made between 5:30pm and 9:30pm from Monday to Thursday and between 5:30-8pm on Fridays. No surveys were carried out on weekends. Occasionally when the evening was not convenient for the respondent a survey was conducted during the day at a time arranged by the respondent.

4.3 Sampling Strategy

The general population survey, as outlined above, was administered using a telephone interview. Potential participants for the survey were selected according to a randomized calling strategy. The unit of analysis for the sample was the household. Any participant within the household that met the eligibility requirements outlined in section 4.1 was asked to participate. This strategy was constructed using a sample frame derived from Census data.

Population levels from Census subdivisions were extracted according to the boundaries of the sub-regions defined by the Steering committee. These populations were then adjusted to reflect the labour market participation rate's provided within the Census. A final number was arrived at for the size of the labour market in each sub-region as well as in each county. See table 4.2.

Table 4.2 Sub-Region Grouping and Labour Market Participation Rates

Bruce County	Sub-region	Total Population	Population - Labour Market Participation
Arran-Elderslie	Bruce In-Land	6,577	
Brockon	Bruce In-Land	9,658	
South Bruce	Bruce In-Land	6,063	
Total		22,298	15,698
South Bruce Peninsula	Bruce Peninsula	8,089	
Northern Bruce Peninsula	Bruce Peninsula	3,599	
Total		11,688	6,475
Kincardine	Bruce Shoreline	11,029	
Saugeen Shores	Bruce Shoreline	11,388	
Huron-Kinloss	Bruce Shoreline	6,224	
Total		28,641	18,684
Bruce Total		62,627	40,857
Grey County	**Sub-region**	**Total Population**	**Population - Labour Market Participation**
Meaford	Georgian Bay	10,381	
Blue Mountains	Georgian Bay	6,116	
City of Owen Sound and Georgian Bluffs	Georgian Bay	31,583	
Total		48,080	29,865
Chatsworth	Grey In-Land	6,280	
Grey Highlands	Grey In-Land	9,196	
Southgate	Grey In-Land	6,907	
West Grey	Grey In-Land	18,610	
Total		40,993	27,119
Grey Total		89,073	56,984

From the population data adjusted for labour market participation rates a sample size was derived. For a given confidence level and confidence interval, sample sizes were generated for Bruce and Grey County's as well as for each of the five sub-regions. A 5% over sample was purposely built into the sample so incomplete or defective surveys could be discarded.

Interviewers made calls from the region's phonebook. The randomized calling strategy was achieved by consulting a random number table. The number generated by this table was then applied to the phonebook to select an entry. If a household was unreachable after three attempts that number was removed from the calling list. In instances where a household was unreachable replacement numbers were generated using a calling rule that directed them to a phone book row above or below the original entry selected.

The results using the preceding sampling strategy can be found in section 4.4.1

There were certain limitations that were identified using this sampling strategy. The foremost among them was the exclusion of those members of Bruce and Grey counties that do not have a phone. Similarly those who do not have a listing in the phone book of the region would be excluded from participating. These concerns were raised and noted but deemed to be manageable.

4.4 Survey Analysis

4.4.1 Response Rate

The sampling strategy outlined above produced the following results.

Table 4.3 Survey Response Rate

Completed Surveys	**A**	**900**
Refusals	B	3,342
No Response	C	4,194
Total Phone Calls Made	A + B + C	8,436
Response Rate	**A / (A + B)**	**21.2%**

4.4.2 Respondent Profile

Before analysis of the sample data can begin it is first necessary to establish the validity of the sample. The sample is valid if it is deemed to be representative of the population that it is taken from. Following the procedures outlined in section 4.3 a sample of Bruce and Grey residents was drawn from the population at large.

This section will outline a profile of the respondents and relate it to census data for the counties as well as the province. Employing this comparison it is possible to gauge the representativeness of the sample. Where the sample is characteristic of data found in the census it allows for a measure of reliability when interpreting the sample data. Equally important is where this profile indicates a difference between sample and census. In these instances the respondent profile points to where adjustments need to be made in the analysis of the sample

4.4.2.1 Sex and Age Distribution

The sex of the respondents can be found in table 4.4. A series of filter questions determined the eligibility of respondents for the survey thereby focusing on people who were in the labour force as well as residents of the area. As per the census definition of the participating labour force, respondents were required to be of legal working age and actively seeking employment (Statistics Canada, 2003). Accordingly, the census figures extracted for the county and province reflected labour market participants.

Table 4.4 Respondents Sex Compared to Country and Province

	Survey – Bruce and Grey	Census – Bruce and Grey	Ontario
Male	37.6%	49.1%	48.9%
Female	62.4%	50.9%	51.1%
Total (N)	763	152,965	11,410,046

The above table shows that Bruce and Grey county are consistent with Provincial averages for males and females in the workforce. However, the survey results depart from the ratios provided by the census. There are a number of possible explanations for the disproportionate gender split in survey respondents but all would be speculative. The analysis of survey results will take into account this gender imbalance.

Additional analysis can be made of the demographics of the survey sample by examining selected descriptive statistics. Table 4.5 provides an overview of those statistics.

Table 4.5 Descriptive Statistics of Respondents Age

N	747
Range	63
Minimum	16
Maximum	79
Mean	42.07
Std. Deviation	12.777

There were 747 valid responses for the question relating to age; generating a very high response rate at 98%. The youngest person to answer the questionnaire was 16 and the oldest was 79 making for an age range of 63 years. The median age of respondents was 42 with a standard deviation of 12.8. The majority of respondents were clustered from 29 to 54 years of age.

By further aggregating age data into cohorts a better picture of the age profile as well as the age split between genders can be observed. The age cohorts below coincide with those ages suitable for the work in the labour market.

Table 4.6 Age Distribution of Respondents Compared to County and Province

Age Cohort	Survey – Bruce and Grey		Census – Bruce and Grey		Census - Province	
	% Male	% Female	% Male	% Female	% Male	% Female
15-19	7.3	3.6	10.2	9.3	8.9	7.9
20-24	6.6	4.6	6.7	5.8	8.1	7.6
25-44	39.7	43.9	28.1	28.2	38.9	37.8
44-54	23.3	30.9	20.0	19.3	18.1	17.8
55-64	16.4	12.8	15.6	14.6	11.8	11.5
65-74	4.9	1.5	12.1	12.1	8.7	9.2
75+	1.7	2.7	7.5	10.8	5.6	8.6
Total (N)	287	476	51,941	44,331	4,091,639	3,590,167

From table 4.6 two distinct incongruities emerge. For both sexes there are more respondents in the cohorts 25-44 and 44-54 relative to the census. As well, there are fewer respondents in the 65-74 and 75+ cohorts relative to the census. These differences would seem to be explained by the nature of the survey as its focus was on those individuals who were currently working or seeking work. For that reason, those people who are retired would be excluded from participating in the survey. In fact, feedback from the survey team indicated that a number of retired individuals contacted were willing to participate but deemed ineligible. Furthermore, the census data relating to age cohorts encompasses the entire population, which differs from the survey in which only work force age cohorts were represented. The parameters of the survey produced an under sampling of those in age cohorts traditionally associated with retirement, 65+. Correspondingly, more respondents were derived from those cohorts that represented the predominately working ages

It is important to note the bias that is inherent to table 4.6. As the eligibility requirements of the survey necessarily limited the respondents to those individuals in the labour force it will be under representative of the population at large. The census breakdown of age encompasses all of those individuals for a given age regardless of their labour market activity. Hence, the census is not a valid reference in comparing age profile of respondents and the population at large. This bias makes further analysis utilizing the census circumspect because comparisons will be based on the census' population at large whereas the survey respondents are confined to labour market participants.

Other than the cohorts referenced above there are no significant differences between the survey sample and the county and provincial averages. Thus, the age distribution of the sample can be deemed typical of the county considering the aims of the survey.

4.4.2.2 Household Income

Household income is a relative measure of well-being for area residents. The figures presented below are pre-tax figures representing a private household unit.

Table 4.7 Household Income Distribution for Respondents Compared to County and Province

	Bruce Grey Survey (%)	Bruce Grey Census (%)	Province Census (%)
under $10,000	3.6	4.9	5.2
$10,000 - $19,999	3.9	13.5	10.7
$20,000 - $29,999	5.7	14.0	10.3
$30,000 - $39,999	11.5	12.7	10.4
$40,000 - $49,999	8.7	11.3	9.9
$50,000 - $59,999	8.0	9.5	9.0
$60,000 - $69,999	11.0	7.8	8.5
$70,000 - $79,999	9.6	6.5	7.2
$80,000 - $89,999	9.4	5.4	6.0
$90,000 - $99,999	4.5	3.6	4.9
$100,000 and over	24.1	10.8	18.1
Total (N)	584	60,285	4,219,410
No Response	179		

It can be seen that the sample drawn from the population of Bruce and Grey counties is not entirely representative of the area. This can be seen by comparing the results of the survey and the census for the income cohorts in table 4.7. Respondents in the higher income cohorts are over represented and correspondingly respondents in the lower income cohorts are under represented relative to census data.

The data that may help to explain this occurrence is the *no response* category. It can be seen from this data that 179 out of a possible 763 respondents elected to not answer the question relating to income. The no response category represents nearly one quarter of the respondents suggesting those respondents who did not respond were those in the lower reaches of the income cohorts.

4.4.2.3 Marital Status

Marital status gives an indication of the composition of family units in the region. The marital status of respondents as well as county and province residents is provided below in table 4.8.

Table 4.8 Respondent Marital Status Compared to County and Province

	Bruce Grey Survey (%)	Bruce Grey Census (%)	Province Census (%)
Single Valid	18.2	24.5	30.4
Legally Married	63.7	58.9	53.4
Common Law	7.5	6.3	6.4
Separated but still legally married	2.9	3.0	3.4
Divorced	5.1	5.9	6.5
Widowed	2.6	7.6	6.3
Total (N)	763	113,350	8,407,885

The survey data for marital status is consistent with data from the census for the county and province. The only noteworthy discrepancy arises for the single and married categories. There were more respondents who were legally married than the county census figures in addition to fewer respondents in the single category. The difference for the single and married categories is

6.3 and 4.8 respectively. Neither of these variations is sizeable enough to influence interpretation of the data.

4.4.3 Labour Market Features

There are a number of basic features that are integral in providing a framework for understanding local economies. The three most important are covered in the next section: employment, education and skills.

4.4.3.1 Employment

There are a number of aspects of employment that are covered by both the census and the survey. To describe the dynamics of employment in Bruce and Grey county three survey variables have been selected: employment basis, employment status and number of jobs held. Finally, a look at unemployment in the region and the mechanisms for support for the unemployed will be made.

Employment Basis

The starting point for the shape of employment in the region is employment basis. Classification of those employed into categories on the basis of tenure is an important indication of quality of work in the region. Table 4.9 shows the breakdown for the counties with respect to this variable.

Table 4.9 Respondent Employment Basis by County

	Bruce (%)	Grey (%)
Permanent	69.8	65.4
Contract / Seasonal	8.6	8.9
Self-employed	16.7	21.3
Casual	4.9	4.4
Total (N)	348	338

The large majority of respondent's were employed on a permanent basis. Nearly 70% of Bruce residents and 65% of Grey residents hold permanent employment; serving as a solid foundation for prosperity within the area. Another large component of the labour force is self-employed; 16.7% in Bruce and 21.3% in Grey. Self-employed members of the area also play an important role in the labour market by encouraging locally derived goods and services. The remaining labour market participants are employed on a part-time or non-permanent basis. In both Bruce and Grey approximately 13% of the labour force is employed in work that is cyclical. Contract and seasonal workers along with casually employed respondents face a greater risk of periods where they are either without work or between jobs. Employment in these categories is important in the area but contribute less than permanent jobs.

Employment status

Table 4.10 Respondent Employment Status by County

	Bruce (%)	Grey (%)
Part-time	24.2	19.5
Full-time	75.7	80.5
Total (N)	348	339

Part-time employment plays a necessary role in the labour market both for employees and employers. However, the income trade-off with part-time work may help to explain the lower income levels in the counties relative to the provincial average (see table 4.7). Also a consideration is that in many part-time jobs, workers do not receive benefits. Thus, residents in Bruce and Grey will have an added burden of dental, supplemental health and other employment packages coverage squeezing already pinched incomes. These traits of part-time work make the relatively high number of individuals employed in this category, nearly 1 in 4 in Bruce and nearly 1 in 5 in Grey, a factor in considering the quality of work in the region.

Do you currently hold more than one job?

Table 4.11 Multiple Jobs for Respondents by County

	Bruce (%)	Grey (%)
Yes	9.5	13.9
No	90.5	86.1
Total (N)	347	338

In trying to round out a complete picture of employment in the region respondents were asked if they held more than one job for which they were paid. Table 4.11 shows the number of people in each county for this question.

Respondents in Grey were employed more frequently in multiple job situations than their counterparts in Bruce. Nearly 10% of Bruce respondents held a job other than their primary employment and not quite 14% of Grey respondents were in the same category.

The trade-off that has to be made when working more than one job are well established. The necessity of entering into this trade-off to secure supplemental income is a reality for a small portion of respondents. Additional jobs tend to be lower paying as well as underutilizing the skills of respondents making the need for a second job an unappealing prospect.

Unemployment

Another central aspect of the shape of the labour market in Bruce and Grey is the degree of unemployment in the area. Table 4.12 depicts the unemployment levels for both Bruce and Grey.

Table 4.12 Unemployment Rate of Respondents by County

	Bruce (%)	Grey (%)
Employed	90.8	88.7
Not Employed	9.2	11.3
Total (N)	382	381

There is a slightly higher number of unemployed respondents in Grey relative to Bruce. Respondents of the survey generated a higher unemployment rate that prevails in the counties at large.

Further investigation of the unemployment in respondents is warranted considering its relatively high level. Income for most people is derived primarily from employment income. Unemployed respondents were asked to provide information about their income sources so as to help understand the structure of unemployment in the area. Table 4.13 provides this information for Bruce and Grey together.

Table 4.13 Income Sources for Unemployed Respondents

	Bruce and Grey (%)
Supported by Others / Investment income	26.0
Loans	1.3
Employment Insurance	3.9
Social Assistance	26.0
Other	42.9
Total (N)	77

The information presented in Table 4.13 should not be viewed as authoritative considering the small number of respondents. However, it does grant some insight into how the unemployed in the region provide for themselves. Over one quarter of respondents were on social assistance. The same percentage were supported by investment income or had financial input from others, usually family members. The highest percentage of respondents generated income while unemployed from other unspecified sources.

4.4.3.2 Employment Experience

There are a variety of occupation and industry specific skills that can be gleaned from employment. Skills learned in both specific occupations and specific industries endow the employee with experience learned from both their employment and the business climate in which they work. This on-the-job experience has no substitute and is particularly attractive to employers since there is an inherent credibility to work experience. When in possession of particular job experience an employee is able to transfer and apply one set of skills to other occupations and industries. Necessarily an examination of the occupations held and industries employed by both respondents and county residents is informative for the purposes of this study.

Occupation

The most basic description of what people do at work can be circumscribed by their occupation classification. An occupation title is linked to a standard set of skills that are required to perform the day to day operations of that occupation in the workplace.

The standard format for classifying and presenting occupation specific data is the National Occupation Classification System (NOC-S). This system is used world-wide and was most recently updated in 2001 with the intent of providing a standard system of comparison for occupations. It contains over 500 units groups which are combined into 140 minor groups, 47 major groups and 10 broad occupation categories (Statistics Canada, 2003)

For the purposes of this survey the 10 base NOC-S categories were used. The information gathered in the survey has been organized at the county level and presented in table 4.14 and table 4.15.

Bruce County – Occupation Classification

Table 4.14 Bruce Respondents Occupation Classification Compared to County

	Sample – Bruce (%)	Census – Bruce (%)
Management Occupation	8.5	9.3
Business, Finance and Administrative Occupation	12.6	11.1
Natural and Applied Sciences and Related Occupation	2.9	5.6
Health Occupation	10.0	4.6
Social Science, Education, Government Service and Religion	11.5	5.8
Art, Culture, Recreation and Sport Occupation	3.5	1.6
Sales and Service Occupation	21.5	23.7
Trades, Transport and Equipment Operator	9.7	19.9
Primary Industry Occupation	9.4	11.2
Processing, Manufacturing and Utilities Occupation	10.3	7.2
Total (N)	340	32660

In comparing the occupation concentrations of survey respondents to residents from the census it can be seen that the sample drawn for the survey is largely representative. The one exception to this is the trades, transport and equipment occupation classification in which the sample did not capture as many individuals in this category as actually exist in Bruce.

Grey County – Occupation Classification

Table 4.15 Grey Respondents Occupation Classification Compared to County

	Sample – Grey (%)	Census – Grey (%)
Management Occupation	9.9	9.5
Business, Finance and Administrative Occupation	9.3	12.3
Natural and Applied Sciences and Related Occupation	3.1	3.1
Health Occupation	11.5	5.7
Social Science, Education, Government Service and Religion	12.4	6.4
Art, Culture, Recreation and Sport Occupation	4.0	2.4
Sales and Service Occupation	19.9	23.2
Trades, Transport and Equipment Operator	14.3	17.9
Primary Industry Occupation	5.6	9.0
Processing, Manufacturing and Utilities Occupation	9.9	10.6
Total (N)	322	45160

Comparison of survey to census in Grey County reveals two material differences. There were more respondents identifying as employed in health and social science, education, government service and religion occupations than in the census. Small differences in sales and service, trades transport and equipment operation and primary industry occupations probably make up this inconsistency.

Survey Occupation's Rankings in Bruce and Grey County

Table 4.16 Occupation Rankings for Bruce and Grey County

Occupation Classification	Bruce	Grey
Management Occupation	8	6
Business, Finance and Administrative Occupation	2	5
Natural and Applied Sciences and Related Occupation	10	10
Health Occupation	5	4
Social Science, Education, Government Service and Religion	3	3
Art, Culture, Recreation and Sport Occupation	9	9
Sales and Service Occupation	1	1
Trades, Transport and Equipment Operator	6	2
Primary Industry Occupation	7	8
Processing, Manufacturing and Utilities Occupation	4	7

It can be seen from the above table that the region as a whole is concentrated in similar classifications of occupations. Sales and service occupations by far lead those occupations held by respondents. They comprise a substantial component of the workforce encompassing nearly a quarter of jobs in Bruce and a fifth of jobs in Grey. This high degree of concentration would seem to be some cause for concern owing to the exposure of these positions to consumer spending habits. Trades, transport and equipment operators also play an important role in the local economy though not reflected by the sample for Bruce County (as noted above). Customarily these jobs are characterized by a high degree of skill and thus are valuable because of their transferability. It can also be seen from the survey that the public sector plays a vital role

in the labour market with occupations highly concentrated in the health, education and government sector.

Overall, it is important to note that the distribution of occupations in both counties is similar. With low concentrations of employment in art, culture, recreation and sport as well as natural and applied sciences. Additionally, concentrations in the top reaches of the rankings are quite alike. A description of the skill sets available to those with experience in these occupations is beyond the scope of this report yet would be readily available from an exploration of these occupations.

Industry

Another essential ingredient for information on a given labour market is to determine industry concentrations. This is valuable information for it allows for broader macroeconomic and industry trends in the province and country to be interpreted in a local context. Furthermore, experience in a given industry provides certain industry-specific skills available for transfer within the labour market for employment.

Similar to occupations, there is a standardized format for classifying industries. This system is entitled the North American Industry Classification System (NAICS) and replaces the Standard Industrial Classification (SIC) used prior to 2001. It was adopted by the statistical agencies of Canada, Mexico and the United States following the North American Free Trade Agreement (NAFTA). The purpose of this system was to provide a means by which to classify industry data in a manner that allowed for common definitions so as to makes comparison between the economies possible (Statistics Canada, 2003). Again, industries are classified into various levels of resolution. For the purposes of this survey the highest level of aggregation, amended to 15 categories, was utilized.

Industry information gathered from the survey is presented at the county level for both the survey and the census in table 4.17 and table 4.18 below.

Table 4.17 Bruce Respondents Industry Classification Compared to County

	Sample – Bruce (%)	Census – Bruce (%)
Agriculture	8.9	10.7
Utilities	13.6	11.4
Construction and/or Specialty Trade Contractor	7.1	8.1
Manufacturing	8.3	10.6
Wholesale and Retail Trade	9.5	14.0
Transportation and Warehousing	.9	3.3
Finance, Insurance, Real Estate and Leasing	1.8	2.9
Professional, Scientific and Technical Services	3.6	3.0
Business, Building and Other Support Services	2.7	3.2
Educational Services	8.0	5.2
Health Care and Social Assistance	13.6	9.2
Information, Culture, and Recreation	4.1	2.5
Accommodation and Food Services	6.8	8.1
Other Services	8.0	4.6
Public Administration	3.3	3.3
Total (N)	338	32,650

Comparing industry survey results to the census it can be seen that the survey overall provides a accurate depiction of the various industry employment levels. The only notable divergences are the over-sampling of the survey in health care and social assistance relative to the census and the under-sampling of the wholesale and retail trade industry. Considering this discrepancy census figures will be used to adjust interpretation of the industry results.

Table 4.18 Grey Respondents Industry Classification Compared to County

	Sample – Grey (%)	Census – Grey (%)
Agriculture	7.6	8.3
Utilities	1.8	0.9
Construction and/or Specialty Trade Contractor	8.2	8.1
Manufacturing	12.7	17.9
Wholesale and Retail Trade	13.9	15.2
Transportation and Warehousing	3.6	3.8
Finance, Insurance, Real Estate and Leasing	6.1	3.7
Professional, Scientific and Technical Services	1.5	3.7
Business, Building and Other Support Services	2.4	3.5
Educational Services	7.6	5.2
Health Care and Social Assistance	16.1	11.0
Information, Culture, and Recreation	3.9	3.9
Accommodation and Food Services	3.9	6.3
Other Services	4.5	5.0
Public Administration	6.1	3.6
Total (N)	330	45,165

The same comparison for Grey reveals that aside from two industries the survey was successful in capturing the realities of the county outlined by the census. Manufacturing was under-sampled and health care and social assistance were over-sampled. Again, this difference will be factored into the reading of these results for analysis.

Survey Industry Rankings in Bruce and Grey County

Table 4.19 Industry Rankings for Bruce and Grey County

Industry Classification	Bruce	Grey
Agriculture	4	3
Utilities	1	5
Construction and/or Specialty Trade Contractor	8	15
Manufacturing	5	2
Wholesale and Retail Trade	3	4
Transportation and Warehousing	15	8
Finance, Insurance, Real Estate and Leasing	14	9
Professional, Scientific and Technical Services	11	1
Business, Building and Other Support Services	13	11
Educational Services	6	12
Health Care and Social Assistance	1	14
Information, Culture, and Recreation	10	6
Accommodation and Food Services	9	13
Other Services	7	7
Public Administration	12	10

The top five industry sectors in Bruce County are the same in both the survey and the census. The importance of these top five industries cannot be understated, as they constitute over 50 percent of employment in Bruce. The importance of Bruce Power in the economy is apparent with utilities sharing the top spot with wholesale and retail trade. In combination with occupation concentrations, the emergence of the retail segment as a keystone of the labour market is underscored. Agriculture continues to play the central role it has for many years in the regional labour market. Manufacturing in the area continues to grow but lags significantly behind provincial averages in this area. The attraction of higher value-added manufacturing in Bruce would be welcome. Rounding out the top five industries in the county are health care and social assistance. With an ageing population and high level of health care provision in the area, health care and social assistance concentrations will likely persist at these high levels.

Grey County differs somewhat from the data from the census and for that reason census data is used in the following interpretation where appropriate. Manufacturing plays a pivotal role in the economy of Grey as it does in Bruce. Most of this manufacturing is focused on provisions for the automotive sector. As such, manufacturing in both Bruce and Grey are tied to the fortunes of the provincial, and in fact global, automotive market. In terms of economic analysis, these are described as basic industries because they bring money into the area from the Province and beyond and benefit local businesses. (Bendavid-Val, A, 1991). Health care also enjoys a prominent place in Grey's economy for the same reason as it does in Bruce; the essential nature of the service as well as an ageing population. Public administration, though not reflected by the survey, is a key element of the county. Agriculture is historically entrenched in the community and is important to Grey the same way as it is to Bruce. Agricultural dollars have been shown by way of many economic impact studies to have a catalytic effect on the local economy confirming the importance of this local industry. Finally, the reliance on the consumer economy demonstrated by the prominence of the wholesale and retail trade industry is shown to be a vital industry for Grey residents (Cummings, H., Morris, K., McLellan, D., 1998).

4.4.3.3 Education

The modern labour market demands a base level of education for most forms of employment. The education levels as well as major field of study quite often shape the labour market opportunities available for those seeking employment as well as those already employed. As such, information on education levels in the area is crucial to understanding what opportunities residents are able to capitalize on considering their educational background.

Highest Level of Education Completed

Tables 4.20 and 4.21 provide the results for highest educational attainment for both the survey and the census.

Table 4.20 Highest Level of Education Attained by Bruce Respondents Compared to County

	Sample – Bruce (%)	Census – Bruce (%)
Not completed high school	8.4	10.1
High School	35.7	36.4
College/Trade School	36.0	38.7
University	19.9	14.7
Total (N)	381	46065

Respondents for Bruce County do not differ greatly in terms of education from that of census respondents. There should be some concern that nearly half of the county does not have any education past high school. This may be problematic due to the fact that many skilled jobs in the labour market necessitate some form of schooling past high school. Otherwise a high number of respondents are in possession of post-secondary education.

Table 4.21 Highest Level of Education Attained by Grey Respondents Compared to County

	Sample – Grey (%)	Census – Grey (%)
Not completed high school	14.2	9.7
High School	36.1	38.3
College/Trade School	30.6	36.8
University	19.0	15.2
Total (N)	379	64855

The survey of Grey county residents also closely mirrors the patterns established by the census. Similar to Bruce, a large percentage of the population does not possess any education past high school. Considering the large number of skilled employment in the region this may be the source of potential difficulty in securing gainful employment for these individuals. The remainder of the population does have education past high school with the majority having educational credit from college and trade school.

Major Fields of Study

The concentrations for the major fields of study for the three post-secondary education types are provided in table 4.22, table 4.23 and table 4.24. The data is aggregated at the county level, combining Bruce and Grey counties.

Table 4.22 Trade School Respondents Major Fields of Study

Trade School	% within Trade School
Automotive Service Technician	2.1
Baker	2.1
Cook	27.1
Drafting	2.1
Electrician	6.3
Carpenter	10.4
Machinist	2.1
Hairstylist	10.4
Landscaper	2.1
Nursery - Greenhouse Worker	2.1
Industrial Electrician	2.1
Industrial Millright	2.1
Industrial Woodworker	2.1
Mechanic	10.4
Millright	2.1
Plumber	4.2
Small Engine/Equipment Mechanic	2.1
Steamfitter	2.1
Technician	4.2
Welding	2.1
Total	100

Within trade school the leading fields of study were: cook, carpenter, hairstylist, mechanic and electrician. The remaining respondents were dispersed evenly among the other trades. It is important to note that there were a number of trades not represented including masons, heavy-duty mechanic, tool and die maker and refrigeration and air conditioning technician.

Table 4.23 College Respondents Major Fields of Study

College	% within College
Business	26.3
Community Services	12.7
Engineering Technology	14.6
General Arts and Sciences	6.8
Health Sciences	23.4
Hospitality and Tourism	3.4
Information Technology / Computing	3.4
Media Studies	2.0
Protective Services	7.3
Total	100

College educated respondents predominantly took business and health sciences degrees. Engineering technology and community services were also well represented within this category.

Table 4.24 University Respondents Major Field of Study

University	% within University
Bachelor of Arts	49.7
Bachelor of Commerce	11.3
Bachelor of Science	24.5
Master's or Doctorate	14.6
	100

The overwhelming percentage of respondents for university level education was with the Bachelor of Arts designation. Also important was the Bachelor of Science that comprised nearly 1 in 4 of respondents in the university category. Also a high number of respondents had education at the master's or doctorate level.

It is important to look at the ratio of respondents in the three post-secondary education types. Just over half of respondents, 50.1%, have a college level education and 37.4% hold university degrees. A very small percentage, 12.5%, of respondents elected to pursue further education at trade school.

Trends that reveal themselves in the above table also can be seen to be suggestive of the prevailing labour climate in the province. Overall the split between the three education types is characteristic of the province. Trade school education has suffered a steady drain of enrollment to colleges and universities. Many reasons have been suggested but the one that seems the most likely cause is the poor perception of the trades among the younger generation. The question of whether or not the region can support the number of university and college graduates is a pertinent one. High concentrations in the business field bode well for the vitality of local business in the area, especially those with the technical skills often learned at the college level in this field. In addition, the focus on effective communication implicit to Bachelor of Arts degrees provides a solid foundation in the basic skill sets required in most employment.

4.4.3.4 Skills

Equally as vital a commodity in the labour market as education is an individual's skill set. They are the collection of abilities that an employee has at their disposal to bring to a given job. The arrays of skills covered in the survey are those that are either generally in demand in the workplace or are broad based job-transferable skills.

The survey asked respondents to rate their perception of their own skills in a number of categories. The scale to gauge the skill level was a 5 point scale; score of 1 was very poor and 5 was very good.

These skills are further disaggregated in section 4.5.2.

General Skills

Foundational to all jobs is a certain baseline skills set. Most of these have to do with communication yet also include work of a physical nature, abstract thinking and managing a

number of tasks at once. Table 4.25 provides a self-assessment by respondents of their skills in areas that relate to these general skills.

Table 4.25 Average Score: Self-Assessment of General Skills by Respondent

	Total (N)	Mean	Standard Deviation
Verbal Communication	763	4.24	.74
Social / Interpersonal	763	4.21	.75
Reading	763	4.40	.78
Teamwork	763	4.40	.73
Written Communication	763	4.03	.86
Math	763	3.66	1.04
Organizational	763	4.11	.95
Physical, Mechanical, Hands-On	763	4.34	1.05
Artistic, Creative	763	3.39	1.15

Scale: 1 = very poor, 5 = very good

Respondents rated reading and teamwork skills as particularly high with a low degree of variability in the responses indicated by the lower range of the standard deviation. Physical, mechanical and hands-on skills were also assessed highly but the variability in replies was wider indicating a more extensive range of skills.

Both math and artistic/creative skills were ranked the lowest. As well, with standard deviations of greater than one, the variation in these categories was greater. Written communication and organizational skills were felt by respondents relatively to be in need of improvement.

The response rate for this question was extremely high with all survey respondents providing an assessment on the above skills.

Computer Skills

The advent of computers in the workplace signified a fundamental shift in the way that employee's work. The proliferation of information and computer based technologies has made a base level of computer aptitude mandatory. Most of this aptitude clusters around the use of certain software. Respondents were asked to rate themselves on four basic and one specialized software programs. Table 4.26 presents the results of this self-assessment.

Table 4.26 Self-Assessment of Computer Skills by Respondent

	Total (N)	Mean	Standard Deviation
Word Processing	763	3.10	1.370
Spreadsheet	763	2.48	1.383
Database	763	2.28	1.307
Internet	763	3.22	1.421
AutoCAD	763	1.35	.873

It can be seen from the above table that the perceived skill level with respect to computers is quite low compared to the perception of general skills in the area. Word processing and Internet comfort ranked the highest but still had a relatively low assessment. Lagging much further

behind were software requiring advanced numeracy, such as spreadsheets and databases. Most people felt their skills were poor in this area. AutoCAD, a specialized computer drawing program valued highly in the market, was scored the lowest by respondents, many having no aptitude or exposure to this program.

The low level of skills in computer software in conjunction with the growing import of these technologies in the workplace would suggest the need for training in this area. Basic training in the above suite of software's would considerably improve the capabilities of residents of the area.

Languages

A worthy skill to hold in the modern labour market is the ability to speak more than one language. By being able to communicate in a language other than English, a labour market participant is able to capitalize on opportunities that lie beyond the sphere of the English only speaking market. As well, knowledge of another language allows for promotion within existing positions as it is becoming increasingly valued in an evermore globalized workplace.

Compared to provincial averages the number of respondent's who speak a language other than English is low. There was 18% of Bruce respondents and 15% of Grey residents who spoke a language other than English. There was a wide range of languages given by respondents with over ten languages represented in the area.

Table 4.27 provides a breakdown of languages available to employers in the area.

Table 4.27 Languages Spoken by Respondents by County

	Bruce (N)	Grey (N)
French	39	36
Spanish	5	5
German	9	8
Dutch	3	1
Italian	2	5
Hungarian	3	0
Hindi	1	1
Other	6	2
Total (N)	68	58

It can be seen from the above table that French is the predominant second language in the area with German also being well represented. The total response category also indicates that the absolute number of respondents in the region who are able to speak a second language is quite small.

Training and/or Education Upgrading

In order to keep pace with changes in the labour market many participants feel it necessary to upgrade their education and training. The survey inquired of respondents their upgrading activities in the last year. In Bruce county 48% of respondents did not participate in any

upgrading activities. The figure was markedly lower in Grey County where 66% of respondents engaged in no upgrading of education or training in the last year.

Table 4.28 gives the categorization of the respondents who upgraded their skill base with training or education upgrading within the last year.

Table 4.28 Training and Education Upgrading of Respondents by County

	Bruce (%)	Grey (%)
College or university course	34.0	34.9
Small business management skills course	3.0	2.3
Accounting or bookkeeping skills	.5	0
Teamwork or conflict resolution skills	5.1	7.0
Workplace safety or first aid course	7.6	2.3
Customer service skills	3.6	0
Adult education course	2.5	3.9
Internships/Apprenticeships	1.0	0
Language training	8.6	6.2
Industry or occupation specific skills	25.9	41.1
Computer training	8.1	2.3
Total (N)	187	129

The majority of respondents from both counties are concentrated in two areas of upgrading: college or university courses and industry or occupation specific skills. The first will be analyzed with table 4.29. There are a large number of people who are involved with industry or occupation specific upgrading. This suggests that a partnership between industry and training facilities would be a fruitful enterprise benefiting both industry as well as residents of Bruce and Grey.

Related to the above, respondents were asked to suggest training or education programs that they would like to participate in but *are not* offered in the area.

Table 4.29 Training and Education Upgrading Programs Requested by Respondents

	Bruce (%)	Grey (%)
Adult education course	20.7	16.9
College or university course	53.1	58.5
Workplace safety or first aid course	2.8	1.5
Internships/Apprenticeships	7.6	8.5
Language training	4.1	.8
Computer training	8.3	6.2
Industry specific skills course	3.4	7.7

The above table makes the case for additional education and training centers to be located in Bruce and Grey. In both counties, nearly three-quarters of the population who responded to this question requested continuing education of some form. The presence of training and education facilities to satisfy the appetite for upgrading would provide a beneficial forum to improve the quality of the labour force in the area.

4.5 Sub-region Analysis

Under the direction of the steering committee the survey was designed to collect labour market information for a number of sub-regions within the county. These sub-regions were outlined in section 4.2.1. For Grey county these are: Grey In-Land and Georgian Bay. Bruce county was subdivided into the following: Bruce In-Land, Bruce Peninsula and Bruce Shoreline. The following sections provide sub-region specific labour market information.

The analysis that was undertaken focused on cross-tabulation of the data. A cross-tabulation looks at the relationship between two or more variables by comparing the 'counts' for the number of times a combination of values of the examined variables occur. The cross-tabulations made in the following tables represent a three way cross-tabulation between skills, education and gender. Gender is included as a variable because as demonstrated in the respondent profile above, there were more female survey respondents than men and accordingly, cross-tabulations are made in a way to eliminate any gender bias in the interpretation of the results.

A respondent profile and basic descriptive statistics are not included in the following analysis because the dataset used to construct the county level information is the same dataset that was used to construct the sub-region dataset. Supplemental samples were drawn for the various sub-regions where appropriate to fulfill statistical sampling requirements dictated by the associated confidence level and interval.

Salient features that emerged from the data were those that were chosen to be highlighted in this report. These features aim to provide additional insight into the dynamics of the regional labour market. Other than gender, highest education level achieved was used as an explanatory variable in this analysis. This variable was chosen as along with skills as it represents one of the basic building blocks of labour market participation.

4.5.1 Statistical Significance

Before the analysis of the skills self-assessment can begin it is important to establish the statistical validity of the results. This is an essential first step in the analysis, as it will determine the relative strength of the survey output. Considering the overall aims of the project together with the limitations of methodology and timeline, statistical significance was established at the two county levels.

As stated above, the basis of the analysis that follows is the cross-tabulation. There are a variety of tests that can be utilized to determine if the relationship between two cross-tabulated variables is significant. Applying these statistical tests diminishes the possibility that the relationships found in the cross-tabulations are due to chance variations stemming from sampling error as well as revealing the strength of any such relationships. Table 4.30 presents a selection of these statistical tests.

Table 4.30 Selected Tests of Statistical Association between Skills and Education Level by Gender

	Pearson's Chi- Squared			Kendall's Tau-b		
Skill	Value	df	Significance Value	Value	Asymp. Std. Error	Significance Value
Verbal						
Male	17.104	12	.046	.133	.051	.009
Female	57.344	16	.000	.190	.040	.000
Reading						
Male	41.229	16	.001	.224	.049	.000
Female	39.849	16	.001	.192	.040	.000
Written						
Male	28.177	16	.030	.167	.049	.001
Female	56.976	16	.000	.202	.039	.000
Social/Interpersonal						
Male	21.245	16	.049	.067	.054	.211
Female	35.347	16	.004	.195	.040	.000
Teamwork						
Male	19.683	16	.035	.074	.052	.155
Female	35.589	16	.003	.056	.041	.174
Artistic						
Male	20.549	16	.197	-.096	.050	.057
Female	10.785	16	.823	-.036	.038	.342
Mathematics						
Male	24.149	16	.086	.120	.049	.014
Female	36.212	16	.003	.108	.039	.006
Organizational						
Male	23.019	16	.113	.144	.050	.004
Female	24.064	16	.088	.128	.040	.002
Physical, Mechanical						
Male	16.813	16	.398	-.026	.053	.631
Female	12.517	16	.708	-.027	.041	.503
Computer						
Male	11.719	16	.041	.184	.063	.668
Female	10.337	16	.033	.228	.044	.551

Skills – 5 point scale; Education categories - Not Completed High School, High School, Trade School, College / Specialty School, University

The first test used in Table 4.30 is the Pearson's chi-squared. It is the first step in determining if there is a relationship between the two variables. It is used to test the null hypothesis that the row and column variables are independent. The most important value is the significance value, which provides a measure of the relationship between the two variables. Generally, a significance value less than 0.05 is considered "significant".

From the above table it can be seen that the majority of skill categories share a significant relationship with level of education. The significance values for both males and females are less than .05 for verbal, reading, writing, social/interpersonal, teamwork, mathematics and computer skills. This infers that there is a correlation between education and these skills. Artistic/creative, physical/mechanical skills for both men and women and organizational skills for men do not display a level of association with education levels.

While the chi-square test is useful for determining whether there is a relationship, it does not report on the strength of the relationship. The second test from Table 4.30, Kendall's Tau-b, is a

symmetric measure, which attempts to quantify the strength of a relationship. The important number in Table 4.30 is the value column. The sign for the value indicates the direction of the relationship. The value itself indicates the strength of the relationship with a possible range between -1 and +1.

Table 4.30 confirms the weak relationships that exist between education level and physical/mechanical and artistic skills. Stronger relationships between education level and skills are demonstrated in the verbal, reading, written, mathematics, organizational and computer skill categories. Fainter relationships exist for social/interpersonal and teamwork skills.

4.5.2 Skills Self-Assessment

The respondents of the survey were asked to make a self-assessment of their skill levels in a variety of areas. Nine skill categories were used and each rated on a 5 point scale. Owing to the nature of the survey these skills concentrated on transferable job skills versus occupation specific skills.

Analysis was undertaken accounting for the gender imbalance where notable differences between the sexes arose. This was necessary to address the higher number of women who responded to the survey (please refer to the respondent profile in s. 4.4.2).

There are two basic skill areas that were covered by the survey: general skills and computer skills. For the general set of skills, they were sorted according to three categories: fundamental skills, soft skills and hard skills. Computer skills were presented on a skill-by-skill basis.

Explanatory note on the tables in this section

The percentages that are presented in the tables represent columnar totals. The total number of respondents for each gender in each of the columns is presented in the Total (N) row. For instance, Table 4.31 shows that in the Bruce Shoreline sub-region 28.6% of the male respondents who had graduated from college or specialty school ranked themselves as having 'very good' verbal communication. Therefore, there would be 8 respondents in this ranking (% * Total (N)).

As well, gender totals for the each of the scale rows are provided. This information allows the reader to determine the gender breakdown as well as the total breakdowns for a particular range in the scale. For instance, in Table 4.31 the total number of male and female respondents in Bruce Peninsula who considered their verbal skills very good was (12 + 29) = 41. The percentage of Bruce Peninsula respondents who rated their verbal skills very good then was 39% (41 / (39+66)). Also, the percentage of either male or female respondents can be calculated using the above method.

Cautionary Note on the tables in this section

The data found in the sub-regional tables below should be interpreted with caution. Moving from the two counties to the five sub-region level in the analysis alters the level of confidence statistically. The results shown in the sub-regional skill tables below have a lower confidence level, 90%, and broader confidence interval, +/4, than the two county data. As such the percentages should not be relied on too heavily within the individual tables, as the small sample sizes must be considered in interpretations. The reliability that the tables do offer at this level is to confirm some of the trends found in the analysis of Bruce and Grey at the county level and in certain cases to illustrate departures from these trends in a particular sub-region.

4.5.2.1 General Skills: Fundamental

In any given job there is a base level of skills that are assumed to be available to an employee. These basic skills center on communication, which serves as the cornerstone of all business operations. It is assumed that any employee would possess these basic skills from their high school education and employment experiences upon entering the workforce. Differentiating yourself in the workplace is often contingent on the degree to which you demonstrate a high competence in these fundamental areas.

Skills that are fundamental to operating in the workplace are verbal communication, reading and written communication. Analysis of these three skill sets was carried out by cross-tabulating the self-assessment of skill levels highest education level achieved.

Verbal Communication

Table 4.31 demonstrates that female respondents felt more comfortable with their verbal communication skills than male respondents in each of the sub-regions. Bruce Shoreline and Grey In-land respondents scored themselves lower than their counterparts in the other three sub-regions in this skill area. Education level did not seem to be as significant determinant in verbal skills when compared to reading skills. However, the trend between higher education and verbal communication skills is also evident here.

Table 4.31 Verbal Skills Self-Assessment Cross-tabulated with Education and Gender

Sub-region	Gender Totals		Scale	Not Completed High School		High School		Trade School		College / Specialty School		University	
Bruce In-Land	**M**	**F**		**M (%)**	**F (%)**	**M (%)**	**F (%)**	**M (%)**	**F (%)**	**M (%)**	**F (%)**	**M (%)**	**F (%)**
	5	10	Average	.0	33.3	16.0	18.8	.0	.0	10.0	8.7	.0	.0
	32	24	Good	66.7	50.0	60.0	21.9	100.0	25.0	60.0	39.1	38.5	21.1
	18	50	Very Good	33.3	16.7	24.0	59.4	.0	75.0	30.0	52.2	61.5	78.9
	55	84	**Total (N)**	3	6	25	32	4	4	10	23	13	19
Bruce Peninsula													
	5	8	Average	.0	20.0	31.3	20.8	.0	.0	.0	4.8	.0	7.1
	22	29	Good	100.0	40.0	43.8	37.5	66.7	100.0	42.9	52.4	57.1	35.7
	12	29	Very Good	.0	40.0	25.0	41.7	33.3	.0	57.1	42.9	42.9	57.1
	39	66	**Total (N)**	6	5	16	24	3	2	7	21	7	14
Bruce Shoreline													
		2	Very Poor		16.7		.0		25.0		.0		.0
	1	1	Poor	.0	.0	.0	2.6	.0	.0	3.6	.0	.0	.0
	15	11	Average	50.0	.0	10.5	7.9	25.0	.0	21.4	15.2	7.7	4.8
	41	52	Good	50.0	50.0	57.9	50.0	75.0	75.0	46.4	41.3	69.2	38.1
	17	49	Very Good	.0	33.3	31.6	39.5	.0	.0	28.6	43.5	23.1	57.1
	74	115	**Total (N)**	10	6	19	38	4	4	28	46	13	21
Grey In-Land													
	2	3	Poor	10.0	9.5	.0	.0	.0	.0	6.7	3.4	.0	.0
	7	14	Average	10.0	28.6	11.5	15.6	66.7	.0	.0	3.4	8.3	.0
	38	52	Good	70.0	28.6	57.7	48.9	33.3	50.0	60.0	55.2	50.0	29.2
	19	52	Very Good	10.0	33.3	30.8	35.6	.0	50.0	33.3	37.9	41.7	70.8
	66	121	**Total (N)**	10	21	26	45	3	2	15	29	12	24
Georgian Bay													
	2		Poor	.0		3.6		.0		4.5		.0	
	18	17	Average	21.4	15.4	25.0	14.9	28.6		13.6	10.2	15.0	12.0
	36	58	Good	21.4	53.8	39.3	44.7	42.9		50.0	44.9	40.0	32.0
	35	59	Very Good	57.1	30.8	32.1	40.4	28.6		31.8	44.9	45.0	56.0
	91	134	**Total (N)**	14	13	28	47	7		22	49	20	25

Reading

In general there is a high degree of literacy in all five sub-regions and across both genders. The one exception may be Bruce Shoreline that would have some people who could benefit from a adult literacy program. As expected, the relationship between higher education and reading skills is strongly established in Table 4.32. The largest number of counts in average to very poor in any of the five sub-regions is in the not completed high school and high school diploma categories. The higher ratings of reading skills are demonstrated in all post-secondary school education categories.

Table 4.32 Reading Skills Self-Assessment Cross-tabulated with Education and Gender

Sub-region	Gender Totals		Scale	Not Completed High School		High School		Trade School		College / Specialty School		University	
Bruce In-Land	**M**	**F**		**M (%)**	**F (%)**	**M (%)**	**F (%)**	**M (%)**	**F (%)**	**M (%)**	**F (%)**	**M (%)**	**F (%)**
	1	1	Poor	.0	16.7	4.0	.0	.0	.0	.0	.0	.0	.0
	8	5	Average	33.3	.0	24.0	12.5	.0	.0	10.0	4.3	.0	.0
	22	23	Good	33.3	50.0	40.0	31.3	100.0	25.0	50.0	26.1	15.4	15.8
	24	55	Very Good	33.3	33.3	32.0	56.3	.0	75.0	40.0	69.6	84.6	84.2
	55	84	**Total (N)**	3	6	25	32	4	4	10	23	13	19
Bruce Peninsula													
	1	1	Poor	16.7	.0	.0	4.2	.0	.0	.0	.0	.0	.0
	7	4	Average	.0	20.0	31.3	12.5	.0	.0	.0	.0	28.6	.0
	17	21	Good	50.0	40.0	37.5	33.3	33.3	.0	57.1	38.1	42.9	21.4
	14	40	Very Good	33.3	40.0	31.3	50.0	66.7	100.0	42.9	61.9	28.6	78.6
	39	66	**Total (N)**	6	5	16	24	3	2	7	21	7	14
Bruce Shoreline													
		1	Very Poor		16.7		.0		.0		.0		.0
	2	1	Poor	20.0	.0	.0	.0	.0	.0	.0	2.2	.0	.0
	19	8	Average	60.0	50.0	15.8	7.9	75.0	.0	21.4	4.3	7.7	.0
	21	23	Good	10.0	.0	26.3	18.4	25.0	25.0	28.6	17.4	46.2	33.3
	32	82	Very Good	10.0	33.3	57.9	73.7	.0	75.0	50.0	76.1	46.2	66.7
	74	115	**Total (N)**	10	6	19	38	4	4	28	46	13	21
Grey In-Land													
	5	1	Poor	10.0	.0	7.7	2.2	33.3	.0	6.7	.0	.0	.0
	10	10	Average	40.0	9.5	7.7	11.1	.0	.0	13.3	6.9	16.7	4.2
	31	34	Good	40.0	38.1	46.2	35.6	66.7	.0	46.7	17.2	50.0	20.8
	20	76	Very Good	10.0	52.4	38.5	51.1	.0	100.0	33.3	75.9	33.3	75.0
	66	121	**Total (N)**	10	21	26	45	3	2	15	29	12	24
Georgian Bay													
	1		Very Poor	7.1		.0		.0		.0		.0	
	1	1	Poor	7.1	.0	.0	2.1	.0		.0	.0	.0	.0
	12	7	Average	21.4	15.4	10.7	8.5	.0		18.2	2.0	10.0	.0
	31	41	Good	28.6	46.2	42.9	29.8	57.1		27.3	26.5	25.0	32.0
	46	85	Very Good	35.7	38.5	46.4	59.6	42.9		54.5	71.4	65.0	68.0
	91	134	**Total (N)**	14	13	28	47	7		22	49	20	25

Written Communication

There were no material differences found in Table 4.33 between male and female respondents with regard written communication skills. The large majority of respondents classified there verbal skills as either good or very good.. Overall, education and skills have a correlation; with the middle range for written skills was influenced by education level; as there were a relatively higher number of respondents in lower education levels evaluating themselves in the average category. Georgian Bay and Grey-In Land had a higher number of respondents assessing themselves in the average to very poor scale for education level.

Table 4.33 Written Skills Self-Assessment Cross-tabulated with Education and Gender

Sub-region	Gender Totals		Scale	Not Completed High School		High School		Trade School		College / Specialty School		University	
Bruce In-Land	**M**	**F**		**M (%)**	**F (%)**	**M (%)**	**F (%)**	**M (%)**	**F (%)**	**M (%)**	**F (%)**	**M (%)**	**F (%)**
	2	3	Poor	.0	16.7	8.0	6.3	.0	.0	.0	.0	.0	.0
	17	10	Average	66.7	33.3	32.0	18.8	50.0	.0	20.0	8.7	23.1	.0
	21	34	Good	33.3	50.0	44.0	43.8	50.0	25.0	50.0	52.2	15.4	21.1
	15	37	Very Good	.0	.0	16.0	31.3	.0	75.0	30.0	39.1	61.5	78.9
	55	84	**Total (N)**	3	6	25	32	4	4	10	23	13	19
Bruce Peninsula													
	2	1	Poor	16.7	.0	.0	4.2	.0	.0	.0	.0	14.3	.0
	12	8	Average	16.7	20.0	50.0	20.8	.0	.0	28.6	.0	14.3	14.3
	18	27	Good	66.7	40.0	43.8	29.2	66.7	50.0	28.6	61.9	42.9	28.6
	7	30	Very Good	.0	40.0	6.3	45.8	33.3	50.0	42.9	38.1	28.6	57.1
	39	66	**Total (N)**	c	5	16	24	3	2	7	21	7	14
Bruce Shoreline													
		2	Very Poor		33.3		.0		.0		.0		.0
	6	1	Poor	20.0	.0	5.3	.0	25.0	.0	7.1	2.2	.0	.0
	18	22	Average	40.0	16.7	26.3	21.1	25.0	75.0	28.6	15.2	.0	14.3
	31	42	Good	30.0	33.3	31.6	39.5	25.0	.0	46.4	41.3	61.5	28.6
	19	48	Very Good	10.0	16.7	36.8	39.5	25.0	25.0	17.9	41.3	38.5	57.1
	74	115	**Total (N)**	10	6	19	38	4	4	28	46	13	21
Grey In-Land													
	2		Very Poor	10.0		3.8		.0		.0		.0	
	5	5	Poor	.0	9.5	7.7	6.7	33.3	.0	13.3	.0	.0	.0
	20	18	Average	60.0	23.8	15.4	15.6	33.3	.0	13.3	17.2	58.3	4.2
	29	57	Good	20.0	38.1	53.8	44.4	33.3	100.0	60.0	51.7	25.0	50.0
	10	41	Very Good	10.0	28.6	19.2	33.3	.0	.0	13.3	31.0	16.7	45.8
	66	121	**Total (N)**	10	21	26	45	3	2	15	29	12	24
Georgian Bay													
	1		Very Poor	7.1		.0		.0		.0		.0	
	2	2	Poor	.0	7.7	.0	2.1	14.3		4.5	.0	.0	.0
	28	21	Average	28.6	46.2	35.7	14.9	57.1		31.8	12.2	15.0	8.0
	32	70	Good	28.6	30.8	35.7	53.2	14.3		31.8	57.1	50.0	52.0
	28	41	Very Good	35.7	15.4	28.6	29.8	14.3		31.8	30.6	35.0	40.0
	91	134	**Total (N)**	14	13	28	47	7		22	49	20	25

4.5.2.2 Soft Skills

Soft skills, or people skills as they are sometimes referred to, constitute a major element of all employment. The ability to interact in a manner in line with the social atmosphere and dictums of the workplace, to effectively participate in a team environment and bring innovative thinking to workplace situations are all highly prized skills in the labour market. Often these soft skills are not communicated in labour market information, as they are difficult to quantify. However, the importance of these soft skills is paramount in maintaining gainful employment in today's labour market.

The self-assessment by survey respondents cross-tabulated with their education level will provide some insight into the abilities of respondents in this area. Table 4.34 covers social and interpersonal skills, Table 4.35 cover teamwork skills, Table 4.36 covers artistic and creative skills.

Social and Interpersonal Skills

Respondents from Grey In-Land gauged their social and interpersonal skills to be in the average to very poor range more often than respondents from the other sub-regions. Table 4.34 demonstrates that male respondents answered more often in the average and good categories whereas female respondents felt more capable in the high end of the scale, very good. There was a stronger link for in this skill category with education for females when compared to males. The relationship between social and interpersonal skills and education level is not strong.

Table 4.34 Social and Interpersonal Skills Self-Assessment Cross-tabulated with Education and Gender

Sub-region	Gender Totals		Scale	Not Completed High School		High School		Trade School		College / Specialty School		University	
Bruce In-Land	**M**	**F**		**M (%)**	**F (%)**	**M (%)**	**F (%)**	**M (%)**	**F (%)**	**M (%)**	**F (%)**	**M (%)**	**F (%)**
	6	10	Average	.0	16.7	16.0	18.8	.0	.0	10.0	8.7	7.7	5.3
	27	26	Good	66.7	66.7	60.0	31.3	50.0	.0	40.0	43.5	30.8	10.5
	22	48	Very Good	33.3	16.7	24.0	50.0	50.0	100.0	50.0	47.8	61.5	84.2
	55	84	**Total (N)**	3	6	25	32	4	4	10	23	13	19
Bruce Peninsula													
		1	Very Poor		.0		4.2		.0		.0		.0
	7	5	Average	16.7	.0	12.5	8.3	33.3	.0	28.6	9.5	14.3	7.1
	20	27	Good	33.3	60.0	68.8	45.8	33.3	.0	42.9	33.3	42.9	42.9
	12	33	Very Good	50.0	40.0	18.8	41.7	33.3	100.0	28.6	57.1	42.9	50.0
	39	66	**Total (N)**	6	5	16	24	3	2	7	21	7	14
Bruce Shoreline													
	1	1	Very Poor	10.0	16.7	.0	.0	.0	.0	.0	.0	.0	.0
	2	1	Poor	10.0	.0	.0	2.6	25.0	.0	.0	.0	.0	.0
	13	9	Average	.0	33.3	10.5	7.9	25.0	25.0	25.0	4.3	23.1	4.8
	41	59	Good	60.0	33.3	57.9	50.0	50.0	50.0	57.1	56.5	46.2	47.6
	17	45	Very Good	20.0	16.7	31.6	39.5	.0	25.0	17.9	39.1	30.8	47.6
	74	115	**Total (N)**	10	6	19	38	4	4	28	46	13	21
Grey In-Land													
	1	2	Poor	.0	9.5	3.8	.0	.0	.0	.0	.0	.0	.0
	15	18	Average	40.0	28.6	23.1	13.3	66.7	.0	6.7	13.8	16.7	8.3
	34	47	Good	50.0	23.8	50.0	53.3	33.3	100.0	60.0	31.0	50.0	29.2
	16	54	Very Good	10.0	38.1	23.1	33.3	.0	.0	33.3	55.2	33.3	62.5
	66	121	**Total (N)**	10	21	26	45	3	2	15	29	12	24
Georgian Bay													
	1		Very Poor	.0		3.6		.0		.0		.0	
	1	1	Poor	7.1	.0	.0	.0	.0		.0	.0	.0	4.0
	20	13	Average	14.3	15.4	21.4	17.0	14.3		18.2	6.1	35.0	.0
	43	62	Good	50.0	61.5	50.0	40.4	57.1		54.5	46.9	30.0	48.0
	26	58	Very Good	28.6	23.1	25.0	42.6	28.6		27.3	46.9	35.0	48.0
	91	134	**Total (N)**	14	13	28	47	7		22	49	20	25

Teamwork Skills

Male respondents rated themselves more often in the higher ranks of the scale than female respondents with regard to teamwork skills. Respondents in Bruce In-Land, Bruce Peninsula and Grey In-Land viewed assessed their teamwork skills more often in the good to very good range. Education seemed to have little impact on teamwork skills except for a slight advantage assessed by those who attended university.

Table 4.35 Teamwork Skills Self-Assessment Cross-tabulated with Education and Gender

Sub-region	Gender Totals		Scale	Not Completed High School		High School		Trade School		College / Specialty School		University	
Bruce In-Land	**M**	**F**		**M (%)**	**F (%)**	**M (%)**	**F (%)**	**M (%)**	**F (%)**	**M (%)**	**F (%)**	**M (%)**	**F (%)**
	1		Poor	.0		4.0		.0		.0		.0	
	5	1	Average	.0	.0	16.0	.0	.0	.0	10.0	4.3	.0	.0
	26	29	Good	66.7	66.7	48.0	40.6	75.0	25.0	50.0	34.8	30.8	15.8
	23	54	Very Good	33.3	33.3	32.0	59.4	25.0	75.0	40.0	60.9	69.2	84.2
	55	84	**Total (N)**	3	6	25	32	4	4	10	23	13	19
Bruce Peninsula													
	1	1	Very Poor	.0	.0	6.3	4.2	.0	.0	.0	.0	.0	.0
		1	Poor		.0		.0		.0		.0		7.1
	6	4	Average	16.7	.0	12.5	8.3	.0	.0	14.3	4.8	28.6	7.1
	15	19	Good	.0	60.0	62.5	33.3	33.3	.0	28.6	23.8	28.6	21.4
	17	41	Very Good	83.3	40.0	18.8	54.2	66.7	100.0	57.1	71.4	42.9	64.3
	39	66	**Total (N)**	6	5	16	24	3	2	7	21	7	14
Bruce Shoreline													
	1		Very Poor	10.0		.0		.0		.0		.0	
	2	4	Poor	.0	.0	.0	.0	.0	50.0	7.1	2.2	.0	4.8
	10	10	Average	20.0	33.3	21.1	7.9	25.0	25.0	7.1	2.2	7.7	14.3
	23	40	Good	10.0	16.7	26.3	28.9	25.0	25.0	35.7	45.7	46.2	28.6
	38	61	Very Good	60.0	50.0	52.6	63.2	50.0	.0	50.0	50.0	46.2	52.4
	74	115	**Total (N)**	10	6	19	38	4	4	28	46	13	21
Grey In-Land													
	3		Poor	.0		7.7		33.3		.0		.0	
	7	4	Average	10.0	4.8	3.8	4.4	.0	.0	6.7	3.4	33.3	.0
	30	40	Good	70.0	28.6	57.7	40.0	66.7	100.0	20.0	27.6	25.0	25.0
	26	77	Very Good	20.0	66.7	30.8	55.6	.0	.0	73.3	69.0	41.7	75.0
	66	121	**Total (N)**	10	21	26	45	3	2	15	29	12	24
Georgian Bay													
		1	Poor		.0		2.1				.0		.0
	16	9	Average	14.3	15.4	25.0	6.4	28.6		4.5	4.1	20.0	8.0
	38	49	Good	28.6	46.2	39.3	29.8	28.6		59.1	28.6	40.0	60.0
	37	75	Very Good	57.1	38.5	35.7	61.7	42.9		36.4	67.3	40.0	32.0
	91	134	**Total (N)**	14	13	28	47	7		22	49	20	25

Artistic and Creative Skills

Women, and especially those women who were college graduates, assessed their artistic and creative skills higher than male respondents. Graduates of university scored themselves notably lower in artistic and creative skills relative to the other education categories. There was a fairly even distribution across each of the five sub-regions in terms of this suite of soft skills. Education and artistic/creative skills are not strongly correlated

Table 4.36 Artistic/Creative Skills Self-Assessment Cross-tabulated with Education and Gender

Sub-region	Gender Totals		Scale	Not Completed High School		High School		Trade School		College / Specialty School		University	
Bruce In-Land	**M**	**F**		**M (%)**	**F (%)**	**M (%)**	**F (%)**	**M (%)**	**F (%)**	**M (%)**	**F (%)**	**M (%)**	**F (%)**
	5	3	Very Poor	.0	.0	12.0	.0	.0	.0	10.0	13.0	7.7	.0
	9	15	Poor	.0	33.3	16.0	15.6	50.0	.0	10.0	21.7	15.4	15.8
	20	23	Average	.0	16.7	36.0	28.1	50.0	25.0	40.0	30.4	38.5	26.3
	11	24	Good	33.3	50.0	20.0	28.1	.0	25.0	10.0	17.4	30.8	36.8
	10	19	Very Good	66.7	.0	16.0	28.1	.0	50.0	30.0	17.4	7.7	21.1
	55	84	**Total (N)**	3	6	25	32	4	4	10	23	13	19
Bruce Peninsula													
	4	5	Very Poor	16.7	.0	6.3	8.3	33.3	.0	.0	9.5	14.3	7.1
	5	7	Poor	16.7	.0	6.3	16.7	.0	.0	28.6	.0	14.3	21.4
	14	18	Average	33.3	20.0	37.5	25.0	33.3	50.0	42.9	28.6	28.6	28.6
	12	19	Good	16.7	40.0	43.8	25.0	33.3	50.0	14.3	38.1	28.6	14.3
	4	17	Very Good	16.7	40.0	6.3	25.0	.0	.0	14.3	23.8	14.3	28.6
	39	66	**Total (N)**	6	5	16	24	3	2	7	21	7	14
Bruce Shoreline													
	8	7	Very Poor	20.0	.0	10.5	10.5	.0	.0	10.7	4.3	7.7	4.8
	16	16	Poor	10.0	.0	26.3	10.5	.0	25.0	17.9	19.6	38.5	9.5
	26	33	Average	30.0	50.0	10.5	23.7	75.0	.0	50.0	30.4	30.8	33.3
	19	32	Good	30.0	16.7	36.8	26.3	25.0	25.0	17.9	30.4	23.1	28.6
	5	27	Very Good	10.0	33.3	15.8	28.9	.0	50.0	3.6	15.2	.0	23.8
	74	115	**Total (N)**	10	6	19	38	4	4	28	46	13	21
Grey In-Land													
	8	5	Very Poor	20.0	9.5	19.2	2.2	.0	.0	.0	3.4	8.3	4.2
	7	18	Poor	10.0	9.5	3.8	20.0	.0	.0	13.3	17.2	25.0	8.3
	22	31	Average	50.0	28.6	19.2	24.4	66.7	.0	33.3	27.6	41.7	25.0
	18	42	Good	20.0	33.3	34.6	28.9	33.3	100.0	26.7	37.9	16.7	37.5
	11	25	Very Good	.0	19.0	23.1	24.4	.0	.0	26.7	13.8	8.3	25.0
	66	121	**Total (N)**	10	21	26	45	3	2	15	29	12	24
Georgian Bay													
	7	8	Very Poor	.0	.0	7.1	4.3	.0		4.5	4.1	20.0	16.0
	11	16	Poor	.0	23.1	14.3	10.6	28.6		18.2	12.2	5.0	8.0
	32	47	Average	42.9	38.5	35.7	27.7	42.9		31.8	49.0	30.0	20.0
	24	38	Good	14.3	23.1	25.0	36.2	28.6		36.4	20.4	25.0	32.0
	17	25	Very Good	42.9	15.4	17.9	21.3	.0		9.1	14.3	20.0	24.0
	91	134	**Total (N)**	14	13	28	47	7		22	49	20	25

4.5.2.3 Other Relevant Skills

There are a number of skills that fall outside of either workplace fundamentals or soft skills. Typically specialized skill sets required by specific jobs have limited application in jobs outside of that industry or occupation. Hence a full account of these specialized skills was not attempted.

Instead respondents were asked to assess their skills in skill areas that were general enough to have an element of transferability yet not so specific that they would be constrained to a specific industry or occupation. Mathematics, organizational, computer and physical and mechanical skills all are relevant skills that fit this criteria and have application in the labour market in Bruce and Grey counties.

Mathematics Skills

Male respondents evaluated their mathematics skills in the very good and good categories more often than female respondents. The difference was more noticeable in the higher education levels. Education had a definite impact on math skills. Those respondents who had attained high school or lower as their highest educational level assessed their mathematics skills in the lower tier of the rankings and correspondingly those who obtained post high school education were more inclined to better math levels. There was not an appreciable difference among the sub-regions.

Table 4.37 Mathematics Skills Self-Assessment Cross-tabulated with Education and Gender

Sub-region	Gender Totals		Scale	Not Completed High School		High School		Trade School		College / Specialty School		University	
Bruce In-Land	**M**	**F**		**M (%)**	**F (%)**	**M (%)**	**F %)**	**M (%)**	**F (%)**	**M (%)**	**F (%)**	**M (%)**	**F (%)**
		4	Very Poor		.0		9.4		.0		4.3		.0
	4	10	Poor	.0	33.3	8.0	12.5	.0	50.0	20.0	8.7	.0	.0
	16	23	Average	.0	.0	40.0	28.1	75.0	.0	20.0	39.1	7.7	26.3
	12	30	Good	.0	50.0	28.0	34.4	25.0	25.0	10.0	30.4	23.1	42.1
	23	17	Very Good	100.0	16.7	24.0	15.6	.0	25.0	50.0	17.4	69.2	31.6
	55	84	**Total (N)**	3	6	25	32	4	4	10	23	13	19
Bruce Peninsula													
	1	3	Very Poor	.0	20.0	.0	4.2	.0	.0	.0	.0	14.3	7.1
		3	Poor		.0		4.2		.0		.0		14.3
	8	25	Average	16.7	40.0	25.0	41.7	66.7	100.0	.0	38.1	14.3	21.4
	15	22	Good	50.0	40.0	37.5	41.7	33.3	.0	42.9	42.9	28.6	7.1
	15	13	Very Good	33.3	.0	37.5	8.3	.0	.0	57.1	19.0	42.9	50.0
	39	66	**Total (N)**	6	5	16	24	3	2	7	21	7	14
Bruce Shoreline													
	2	4	Very Poor	10.0	.0	.0	2.6	.0	.0	3.6	2.2	.0	9.5
	5	21	Poor	20.0	33.3	5.3	21.1	.0	50.0	7.1	8.7	.0	23.8
	20	32	Average	10.0	50.0	36.8	26.3	50.0	.0	25.0	30.4	23.1	23.8
	26	33	Good	60.0	16.7	36.8	31.6	50.0	.0	32.1	37.0	15.4	14.3
	21	25	Very Good	.0	.0	21.1	18.4	.0	50.0	32.1	21.7	61.5	28.6
	74	115	**Total (N)**	10	6	19	38	4	4	28	46	13	21
Grey In-Land													
		6	Very Poor		9.5		4.4		.0		3.4		4.2
	7	18	Poor	10.0	28.6	19.2	11.1	.0	50.0	6.7	13.8	.0	8.3
	17	33	Average	40.0	23.8	34.6	26.7	33.3	.0	6.7	37.9	16.7	20.8
	31	32	Good	30.0	19.0	34.6	33.3	66.7	.0	60.0	13.8	66.7	37.5
	11	32	Very Good	20.0	19.0	11.5	24.4	.0	50.0	26.7	31.0	16.7	29.2
	66	121	**Total (N)**	10	21	26	45	3	2	15	29	12	24
Georgian Bay													
	1	2	Very Poor	.0	15.4	3.6	.0	.0		.0	.0	.0	.0
	5	17	Poor	.0	23.1	3.6	17.0	14.3		9.1	8.2	5.0	8.0
	24	57	Average	7.1	30.8	35.7	36.2	14.3		31.8	46.9	25.0	52.0
	38	31	Good	50.0	7.7	39.3	19.1	42.9		36.4	26.5	45.0	32.0
	23	27	Very Good	42.9	23.1	17.9	27.7	28.6		22.7	18.4	25.0	8.0
	91	134	**Total (N)**	14	13	28	47	7		22	49	20	25

Organizational Skills

Organizational skills were evaluated more favourably by female respondents than male. Education levels did moderately influence the self-assessment of this skill for respondents. Most gauged their organizational skills to be in the upper reaches of the scale. Georgian Bay and Bruce Peninsula respondents appraised their organizational skills lower than the other three sub-regions.

Table 4.38 Organizational Skills Self-Assessment Cross-tabulated with Education and Gender

	M	F		M (%)	F (%)	M (%)	F (%)	M (%)	F (%)	M (%)	F (%)	M (%)	F (%)
Bruce In-Land													
	3	1	Poor	.0	.0	.0	3.1	25.0	.0	20.0	.0	.0	.0
	6	10	Average	.0	33.3	12.0	18.8	50.0	.0	.0	8.7	7.7	.0
	23	26	Good	.0	33.3	72.0	37.5	25.0	25.0	10.0	21.7	23.1	31.6
	23	45	Very Good	100.0	16.7	16.0	40.6	.0	75.0	70.0	65.2	69.2	68.4
	55	84	**Total (N)**	3	6	25	32	4	4	10	23	13	19
Bruce Peninsula													
	5	2	Poor	16.7	20.0	12.5	4.2	.0	.0	.0	.0	28.6	.0
	6	5	Average	.0	20.0	31.3	8.3	.0	.0	.0	.0	14.3	14.3
	17	22	Good	66.7	20.0	43.8	33.3	66.7	.0	42.9	47.6	14.3	21.4
	11	37	Very Good	16.7	40.0	12.5	54.2	33.3	100.0	57.1	52.4	42.9	64.3
	39	66	**Total (N)**	6	5	16	24	3	2	7	21	7	14
Bruce Shoreline													
	2	1	Very Poor	10.0	.0	5.3	.0	.0	.0	.0	.0	.0	4.8
	2	8	Poor	.0	16.7	10.5	2.6	.0	25.0	.0	8.7	.0	4.8
	14	15	Average	20.0	33.3	10.5	13.2	25.0	25.0	14.3	10.9	38.5	9.5
	33	42	Good	50.0	16.7	42.1	39.5	25.0	25.0	50.0	37.0	38.5	38.1
	23	49	Very Good	20.0	33.3	31.6	44.7	50.0	25.0	35.7	43.5	23.1	42.9
	74	115	**Total (N)**	10	6	19	38	4	4	28	46	13	21
Grey In-Land													
	1	1	Very Poor	.0	4.8	3.8	.0	.0	.0	.0	.0	.0	.0
	6	7	Poor	10.0	9.5	7.7	4.4	33.3	.0	.0	3.4	16.7	8.3
	16	18	Average	40.0	19.0	30.8	8.9	.0	.0	13.3	20.7	16.7	16.7
	22	38	Good	40.0	38.1	30.8	35.6	66.7	100.0	33.3	20.7	25.0	25.0
	21	57	Very Good	10.0	28.6	26.9	51.1	.0	.0	53.3	55.2	41.7	50.0
	66	121	**Total (N)**	10	21	26	45	3	2	15	29	12	24
Georgian Bay													
	2		Very Poor	.0		3.6		.0		.0		5.0	
	10	4	Poor	14.3	7.7	10.7	2.1	28.6		4.5	2.0	10.0	4.0
	25	20	Average	21.4	23.1	35.7	17.0	14.3		31.8	14.3	20.0	8.0
	31	48	Good	42.9	15.4	32.1	42.6	28.6		31.8	40.8	35.0	24.0
	23	62	Very Good	21.4	53.8	17.9	38.3	28.6		31.8	42.9	30.0	64.0
	91	134	**Total (N)**	14	13	28	47	7		22	49	20	25

Mechanical and Physical Skills

The mechanical and physical skill level of male respondents was assessed higher than female respondents in all of the sub-regions. Trade school and college respondents ranked their mechanical and physical skills the highest of the five education categories. Grey county residents judged these skills to be above average more often than Bruce county respondents.

Table 4.39 Mechanical and Physical Skills Self-Assessment Cross-tabulated with Education and Gender

Sub-region	Gender Totals		Scale	Not Completed High School		High School		Trade School		College / Specialty School		University	
	M	F		M (%)	F (%)	M (%)	F (%)	M (%)	F (%)	M (%)	F (%)	M (%)	F (%)
Bruce In-Land	1	9	Very Poor	.0	33.3	.0	6.3	.0	25.0	10.0	13.0	.0	5.3
	3	13	Poor	.0	.0	.0	18.8	.0	.0	20.0	13.0	7.7	21.1
	11	20	Average	33.3	16.7	28.0	15.6	.0	.0	.0	26.1	23.1	42.1
	13	26	Good	.0	33.3	20.0	37.5	25.0	25.0	30.0	26.1	30.8	26.3
	27	16	Very Good	66.7	16.7	52.0	21.9	75.0	50.0	40.0	21.7	38.5	5.3
	55	84	**Total (N)**	3	6	25	32	4	4	10	23	13	19
Bruce Peninsula		2	Very Poor		.0		.0		.0		.0		14.3
		5	Poor		40.0		4.2		.0		.0		14.3
	4	21	Average	.0	40.0	12.5	33.3	.0	50.0	.0	23.8	28.6	35.7
	16	17	Good	33.3	20.0	37.5	33.3	33.3	50.0	57.1	23.8	42.9	14.3
	19	21	Very Good	66.7	.0	50.0	29.2	66.7	.0	42.9	52.4	28.6	21.4
	39	66	**Total (N)**	6	5	16	24	3	2	7	21	7	14
Bruce Shoreline	2	6	Very Poor	.0	16.7	5.3	10.5	.0	.0	3.6	2.2	.0	.0
	7	18	Poor	10.0	.0	21.1	13.2	.0	25.0	.0	10.9	15.4	33.3
	13	32	Average	20.0	16.7	31.6	31.6	.0	25.0	3.6	34.8	30.8	9.5
	24	33	Good	40.0	50.0	5.3	15.8	25.0	.0	42.9	30.4	46.2	47.6
	28	26	Very Good	30.0	16.7	36.8	28.9	75.0	50.0	50.0	21.7	7.7	9.5
	74	115	**Total (N)**	10	6	19	38	4	4	28	46	13	21
Grey In-Land	2	13	Very Poor	10.0	9.5	3.8	13.3	.0	.0	.0	6.9	.0	12.5
	3	16	Poor	10.0	9.5	3.8	13.3	.0	50.0	.0	3.4	8.3	25.0
	9	27	Average	.0	23.8	11.5	22.2	.0	50.0	20.0	13.8	25.0	29.2
	25	37	Good	30.0	38.1	46.2	26.7	33.3	.0	26.7	44.8	41.7	16.7
	27	28	Very Good	50.0	19.0	34.6	24.4	66.7	.0	53.3	31.0	25.0	16.7
	66	121	**Total (N)**	10	21	26	45	3	2	15	29	12	24
Georgian Bay		7	Very Poor		7.7		4.3				6.1		4.0
	6	16	Poor	.0	15.4	3.6	8.5	.0		13.6	12.2	10.0	16.0
	15	35	Average	.0	15.4	28.6	25.5	.0		.0	24.5	35.0	36.0
	29	43	Good	35.7	15.4	28.6	38.3	28.6		31.8	34.7	35.0	24.0
	41	33	Very Good	64.3	46.2	39.3	23.4	71.4		54.5	22.4	20.0	20.0
	91	134	**Total (N)**	14	13	28	47	7		22	49	20	25

Computer Skills

The importance of the capacity to skillfully operate computer software cannot be understated in the modern labour market. The rapid ascension and adoption of computer software in the workplace has necessitated a certain aptitude for most occupations. The increasing trend toward automation as well as the integration of digital communications into many workplaces means that the rise of computer software will certainly continue.

Other than proprietary software most of the software that is used in the workplace today has a common platform. Word processing, spreadsheets and the ability to use the Internet and email are part of the basic software package that prevails in today's workplace. These three software platforms are covered in the following section.

Word Processing Skills

Gender seemed to be a determinant of skill levels for word processing, with female respondents averaging higher self-assessment scores than male respondents. There is a definite relationship between education and word processing skill level. Those respondents who had not completed high school or who had a high school diploma did not assess their word processing skills as high as those in college or university. Trade school graduates also did not sense their skills in this area were strong. There was not a significant difference between the sub-regions in this type of skill.

Table 4.40 Word-Processing Skills Self-Assessment Cross-tabulated with Highest Education Level and Gender

Sub-region	Gender Totals		Scale	Not Completed High School		High School		Trade School		College / Specialty School		University	
Bruce In-Land	M	F		M (%)	F (%)	M (%)	F (%)	M (%)	F (%)	M (%)	F (%)	M (%)	F (%)
	10	12	Very Poor	33.3	50.0	24.0	15.6	25.0	50.0	10.0	8.7	7.7	.0
	8	6	Poor	.0	.0	16.0	9.4	50.0	25.0	10.0	4.3	7.7	5.3
	14	23	Average	33.3	16.7	28.0	31.3	25.0	.0	40.0	39.1	7.7	15.8
	9	24	Good	.0	16.7	16.0	34.4	.0	.0	20.0	21.7	23.1	36.8
	14	19	Very Good	33.3	16.7	16.0	9.4	.0	25.0	20.0	26.1	53.8	42.1
	55	84	**Total (N)**	3	6	25	32	4	4	10	23	13	19
Bruce Peninsula													
	9	12	Very Poor	66.7	60.0	12.5	20.8	.0	.0	28.6	14.3	14.3	7.1
	10	10	Poor	33.3	.0	25.0	8.3	33.3	.0	.0	33.3	42.9	7.1
	11	16	Average	.0	20.0	37.5	25.0	66.7	100.0	14.3	19.0	28.6	21.4
	8	19	Good	.0	.0	25.0	37.5	.0	.0	42.9	19.0	14.3	42.9
	1	9	Very Good	.0	20.0	.0	8.3	.0	.0	14.3	14.3	.0	21.4
	39	66	**Total (N)**	6	5	16	24	3	2	7	21	7	14
Bruce Shoreline													
	10	28	Very Poor	40.0	66.7	5.3	28.9	25.0	50.0	10.7	21.7	7.7	4.8
	11	5	Poor	30.0	.0	5.3	5.3	25.0	25.0	14.3	2.2	15.4	4.8
	28	32	Average	30.0	.0	47.4	34.2	50.0	25.0	39.3	21.7	23.1	38.1
	15	27	Good	.0	33.3	21.1	10.5	.0	.0	25.0	30.4	30.8	33.3
	10	23	Very Good	.0	.0	21.1	21.1	.0	.0	10.7	23.9	23.1	19.0
	74	115	**Total (N)**	10	6	19	38	4	4	28	46	13	21
Grey In-Land													
	22	30	Very Poor	70.0	61.9	30.8	31.1	66.7	50.0	13.3	6.9	25.0	.0
	9	11	Poor	10.0	9.5	15.4	11.1	.0	.0	6.7	10.3	25.0	4.2
	15	19	Average	10.0	.0	23.1	20.0	33.3	50.0	33.3	10.3	16.7	25.0
	10	33	Good	10.0	19.0	11.5	22.2	.0	.0	26.7	31.0	16.7	41.7
	10	28	Very Good	.0	9.5	19.2	15.6	.0	.0	20.0	41.4	16.7	29.2
	66	121	**Total (N)**	10	21	26	45	3	2	15	29	12	24
Georgian Bay													
	18	11	Very Poor	50.0	23.1	10.7	12.8	14.3		13.6	4.1	20.0	.0
	21	16	Poor	.0	23.1	32.1	8.5	14.3		31.8	14.3	20.0	8.0
	21	36	Average	21.4	30.8	25.0	25.5	14.3		31.8	28.6	15.0	24.0
	19	43	Good	14.3	7.7	25.0	38.3	42.9		9.1	30.6	25.0	36.0
	12	28	Very Good	14.3	15.4	7.1	14.9	14.3		13.6	22.4	20.0	32.0
	91	134	**Total (N)**	14	13	28	47	7		22	49	20	25

Spreadsheet Skills

The self-assessment of spreadsheet skills also demonstrated a difference with respect to gender. Male respondents appraised their skills at a higher level than female respondents, especially in the above average rankings. Education continued to be a determinant in this area with those having completed high school or lower assessing their spreadsheet capacity much lower than those in college and university. Bruce Shoreline and Bruce In-Land under-performed relative to the other sub-regions with respect to spreadsheet skills.

Table 4.41 Spreadsheet Skills Self-Assessment Cross-tabulated with Highest Education Level and Gender

Sub-region	Gender Totals		Scale	Not Completed High School		High School		Trade School		College / Specialty School		University	
Bruce In-Land	M	F		M (%)	F (%)	M (%)	F (%)	M (%)	F (%)	M (%)	F (%)	M (%)	F (%)
	16	21	Very Poor	66.7	33.3	20.0	28.1	100.0	75.0	30.0	26.1	15.4	5.3
	8	16	Poor	.0	.0	32.0	21.9	.0	.0	.0	21.7	.0	21.1
	8	22	Average	.0	33.3	24.0	25.0	.0	.0	20.0	30.4	.0	26.3
	11	17	Good	.0	33.3	16.0	21.9	.0	.0	30.0	8.7	30.8	31.6
	12	8	Very Good	33.3	.0	8.0	3.1	.0	25.0	20.0	13.0	53.8	15.8
	55	84	**Total (N)**	3	6	25	32	4	4	10	23	13	19
Bruce Peninsula													
	18	22	Very Poor	83.3	60.0	43.8	41.7	.0	.0	28.6	23.8	57.1	28.6
	6	19	Poor	.0	.0	25.0	16.7	66.7	100.0	.0	38.1	.0	35.7
	6	9	Average	16.7	20.0	12.5	20.8	33.3	.0	14.3	9.5	14.3	7.1
	8	11	Good	.0	.0	18.8	20.8	.0	.0	42.9	19.0	28.6	14.3
	1	5	Very Good	.0	20.0	.0	.0	.0	.0	14.3	9.5	.0	14.3
	39	66	**Total (N)**	6	5	16	24	3	2	7	21	7	14
Bruce Shoreline													
	18	52	Very Poor	60.0	83.3	21.1	52.6	50.0	100.0	10.7	39.1	23.1	23.8
	16	13	Poor	10.0	.0	31.6	5.3	25.0	.0	25.0	13.0	7.7	23.8
	22	25	Average	20.0	16.7	36.8	26.3	25.0	.0	35.7	17.4	15.4	28.6
	10	10	Good	10.0	.0	.0	10.5	.0	.0	14.3	10.9	38.5	4.8
	8	15	Very Good	.0	.0	10.5	5.3	.0	.0	14.3	19.6	15.4	19.0
	74	115	**Total (N)**	10	6	19	38	4	4	28	46	13	21
Grey In-Land													
	34	45	Very Poor	80.0	76.2	53.8	37.8	100.0	100.0	20.0	24.1	50.0	12.5
	8	17	Poor	10.0	4.8	11.5	22.2	.0	.0	20.0	3.4	8.3	20.8
	12	27	Average	10.0	14.3	19.2	15.6	.0	.0	26.7	34.5	16.7	29.2
	4	14	Good	.0	.0	3.8	15.6	.0	.0	20.0	6.9	.0	20.8
	8	18	Very Good	.0	4.8	11.5	8.9	.0	.0	13.3	31.0	25.0	16.7
	66	121	**Total (N)**	10	21	26	45	3	2	15	29	12	24
Georgian Bay													
	29	43	Very Poor	50.0	53.8	28.6	31.9	42.9		22.7	32.7	30.0	20.0
	21	24	Poor	7.1	15.4	17.9	14.9	42.9		31.8	24.5	25.0	12.0
	23	33	Average	14.3	23.1	35.7	27.7	.0		36.4	22.4	15.0	24.0
	11	24	Good	14.3	7.7	14.3	21.3	14.3		4.5	8.2	15.0	36.0
	7	10	Very Good	14.3	.0	3.6	4.3	.0		4.5	12.2	15.0	8.0
	91	134	**Total (N)**	14	13	28	47	7		22	49	20	25

Internet and Email Skills

Male and females respondents overall evaluated their skills with Internet and email software to be similar. Once again, the link between higher education and computer skills was established. However, high numbers of college and trade school graduates sensed they needed improvement in this skill area. All five sub-regions exhibited proportionately high numbers of respondents on the average and below self-assessment scale.

Table 4.42 Internet and Email Skills Self-Assessment Cross-tabulated with Highest Education Level and Gender

Sub-region	Gender Totals		Scale	Not Completed High School		High School		Trade School		College / Specialty School		University	
Bruce In-Land	**M**	**F**		**M (%)**	**F (%)**	**M (%)**	**F (%)**	**M (%)**	**F (%)**	**M (%)**	**F (%)**	**M (%)**	**F (%)**
	7	10	Very Poor	.0	33.3	8.0	15.6	50.0	50.0	20.0	4.3	7.7	.0
	9	7	Poor	66.7	.0	24.0	6.3	.0	.0	.0	17.4	7.7	5.3
	8	16	Average	.0	.0	24.0	25.0	.0	25.0	10.0	17.4	7.7	15.8
	15	35	Good	.0	50.0	20.0	37.5	50.0	.0	50.0	47.8	23.1	47.4
	16	16	Very Good	33.3	16.7	24.0	15.6	.0	25.0	20.0	13.0	53.8	31.6
	55	84	**Total (N)**	3	6	25	32	4	4	10	23	13	19
Bruce Peninsula													
	10	12	Very Poor	100.0	40.0	12.5	33.3	.0	.0	14.3	9.5	14.3	.0
	5	4	Poor	.0	.0	6.3	4.2	33.3	50.0	.0	9.5	42.9	.0
	7	8	Average	.0	.0	37.5	8.3	.0	50.0	.0	19.0	14.3	7.1
	11	30	Good	.0	40.0	43.8	37.5	66.7	.0	28.6	42.9	.0	71.4
	6	12	Very Good	.0	20.0	.0	16.7	.0	.0	57.1	19.0	28.6	21.4
	39	66	**Total (N)**	6	5	16	24	3	2	7	21	7	14
Bruce Shoreline													
	13	27	Very Poor	50.0	33.3	10.5	26.3	25.0	75.0	7.1	21.7	23.1	9.5
	7	5	Poor	10.0	16.7	5.3	5.3	50.0	.0	10.7	4.3	.0	.0
	17	33	Average	20.0	33.3	21.1	26.3	25.0	.0	21.4	32.6	30.8	28.6
	19	25	Good	10.0	.0	31.6	21.1	.0	25.0	32.1	17.4	23.1	38.1
	18	25	Very Good	10.0	16.7	31.6	21.1	.0	.0	28.6	23.9	23.1	23.8
	74	115	**Total (N)**	10	6	19	38	4	4	28	46	13	21
Grey In-Land													
	24	30	Very Poor	70.0	61.9	42.3	26.7	66.7	100.0	13.3	6.9	16.7	4.2
	6	14	Poor	10.0	4.8	3.8	17.8	.0	.0	20.0	10.3	8.3	8.3
	12	16	Average	10.0	4.8	19.2	15.6	33.3	.0	13.3	17.2	25.0	12.5
	15	28	Good	10.0	9.5	23.1	26.7	.0	.0	33.3	17.2	25.0	37.5
	9	33	Very Good	.0	19.0	11.5	13.3	.0	.0	20.0	48.3	25.0	37.5
	66	121	**Total (N)**	10	21	26	45	3	2	15	29	12	24
Georgian Bay													
	18	16	Very Poor	50.0	7.7	14.3	21.3	14.3		13.6	10.2	15.0	.0
	10	10	Poor	.0	23.1	17.9	2.1	14.3		13.6	12.2	5.0	.0
	21	34	Average	.0	23.1	21.4	19.1	28.6		36.4	30.6	25.0	28.0
	22	47	Good	21.4	38.5	25.0	42.6	42.9		9.1	28.6	35.0	32.0
	20	27	Very Good	28.6	7.7	21.4	14.9	.0		27.3	18.4	20.0	40.0
	91	134	**Total (N)**	14	13	28	47	7		22	49	20	25

4.5.2.4 Sub-regional Skill Comparison

To explore differences in skill levels across the five sub-regions it is necessary to compute an array of frequency statistics. Table 4.43 provides an account of the variances across sub-regions for each of the ten skill categories. The mean is the average response provided by respondents and the standard deviation represents the variance from that mean within the distribution of responses.

Table 4.43 Skills by Sub-region

	Bruce In-Land		**Bruce Peninsula**		**Bruce Shoreline**		**Grey In-Land**		**Georgian Bay**	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Verbal	4.38	.67	4.26	.66	4.16	.77	4.21	.747	4.24	.74
Reading	4.45	.72	4.38	.74	4.41	.83	4.34	.800	4.47	.72
Written	4.11	.84	4.09	.81	4.04	.91	3.93	.882	4.04	.79
Social / Interpersonal	4.39	.68	4.29	.74	4.15	.76	4.16	.765	4.20	.74
Teamwork	4.50	.61	4.38	.84	4.34	.83	4.46	.688	4.38	.69
Artistic / Creative	3.38	1.16	3.42	1.18	3.28	1.16	3.41	1.162	3.40	1.12
Mathematics	3.72	1.07	3.79	1.01	3.60	1.09	3.60	1.085	3.63	.97
Organizational	4.27	.88	4.23	.88	4.07	.94	4.05	1.009	4.03	.95
Mechanical / Physical	3.64	1.23	3.99	.99	3.66	1.15	3.66	1.222	3.82	1.09
Computer	3.82	.78	3.12	.84	3.41	.84	3.56	1.011	3.80	.97

Table 4.43 reveals certain regional differences. The region that fares the best overall in self-assessment of skills is Bruce In-Land. With the exception of artistic/creative and mechanical/physical skills, it is ranked either first or second in the five sub-regions. A close second is Bruce Peninsula. Again, apart from reading and computers it has a high ranking relative to the other sub-regions. Bruce Shoreline resides in the middle of the five sub-regions with improvements needed in social/interpersonal, teamwork and mathematics skills. Grey In-Land and Georgian Bay share the final spots with lower skill performances in most categories. Exceptions are teamwork and artistic skills in Grey In-Land and computer, mechanical/physical and reading skills in Georgian Bay.

4.5.3 Sub-region Employment

There are a number of relevant pieces of labour market information captured by the survey instrument at the sub-regional level. This section will provide an account of selected questions from the employee survey not found in the traditional Census Canada questionnaire to round out a picture of local employment conditions.

Analysis for this section continues to account for the disparity between male and female survey respondents by examining gender specific output. As well, cross-tabulations for this section were made with using the five sub-regions as the pivot in the table.

It should be noted that the disaggregation of county level data to the sub-regional level results in a lower confidence interval and confidence level. The need for a balance between resources and timeline meant that the collection of survey data at the sub-regional level was restricted to these lower statistical confidence levels. The outcome of this in cross-tabulations is a low total number of responses in some categories. As such, caution should be used in interpreting the results in such cases of low total (N). Nevertheless, trends found in each of the following sub-regional analysis confirm trends found at their respective county level.

4.5.3.1 Employment Perceptions

The survey asked of respondents their perception of their current employment. The two components of employment perception used in this survey are underemployment and job satisfaction.

The definition used for the survey provided by Statistics Canada outlines underemployment to "indicate insufficient hours or weeks of work … it also aptly describes the under-use of skills". (Krahn and Lowe, 1994; Statistics Canada, 2001). Table 4.44 illustrates underemployment perceptions in each of the sub-regions.

Table 4.44 Underemployment Assessment by Sub-region and Gender

Underemployment Perception	Bruce In-Land		Bruce Peninsula		Bruce Shoreline		Grey In-Land		Georgian Bay	
	M (%)	F (%)	M (%)	F (%)	M (%)	F (%)	M (%)	F (%)	M (%)	F (%)
Yes	15.4	24.1	17.9	20.6	20.6	24.7	17.2	19.8	18.8	28.1
No	84.6	75.9	82.1	79.4	79.4	75.3	82.8	80.2	81.2	71.9
Total (N)	52	79	39	63	68	97	58	106	85	121

The above table shows a distinct difference between male and female underemployment perceptions. Female respondents in all sub-regions felt that they were underemployed in their current positions more often than male respondents. Bruce In-Land, Bruce Shoreline and Georgian Bay all demonstrated this trend most markedly. Overall the responses across the sub-regions show a relatively high percentage of respondents felt that they were either working in a position that underutilized their skills and education or that they were working less than thirty hours per week not by choice. With the exception of males in Bruce In-Land, between one-fifth and one-quarter of respondents felt underemployed

Job satisfaction is another important element of employment perception in the sub-regions. Respondent's views of their current occupations were classified according to a five point scale (very unsatisfied to very satisfied).

Table 4.45 Job Satisfaction by Sub-region and Gender

Job Satisfaction Level	Bruce In-Land		Bruce Peninsula		Bruce Shoreline		Grey In-Land		Georgian Bay	
	M (%)	F (%)	M (%)	F (%)	M (%)	F (%)	M (%)	F (%)	M (%)	F (%)
Very Satisfied	48.1	48.1	44.7	55.6	52.9	44.3	55.2	52.4	36.5	47.1
Satisfied	34.6	39.2	47.4	36.5	36.8	36.1	32.8	32.0	50.6	42.1
Undecided	7.7	3.8	5.3	1.6	2.9	6.2	5.2	4.9	8.2	3.3
Unsatisfied	3.8	6.3	2.6	4.8	5.9	8.2	5.2	9.7	2.4	5.0
Very Unsatisfied	5.8	2.5	.0	1.6	1.5	5.2	1.7	1.0	2.4	2.5
Total (N)	52	79	38	63	68	97	58	103	85	121

The large majority of respondents felt either satisfied or very satisfied with their current occupation. Male and female respondents shared a similar level of job satisfaction across the sub-regions, but female respondents did count themselves more often as unsatisfied or very unsatisfied. In none of the five sub-regions was a substantial level of dissatisfaction registered by respondents. The largest group of very satisfied male workers was in Grey In-Land (55.2%) and the lowest level was in Georgian Bay (36.5%). The largest group of very satisfied female workers was in Bruce peninsula (55.6%) and the lowest was in Bruce Shoreline (44.3%).

4.5.3.2 Mobility

Labour force migration is an influential force within any regional economy. The need for a matching of labour supply with labour demand is complicated by the movement of labour into and out of the Bruce and Grey region.

To understand the future trends for labour supply in the region the general population survey asked respondents to project their future employment plans on a 1 year and 5 year horizon.

Table 4.46 Job Mobility 1-Year and 5-Year by Sub-region and Gender

Time Horizon	Bruce In-Land		Bruce Peninsula		Bruce Shoreline		Grey In-Land		Georgian Bay	
1 YEAR	**M (%)**	**F (%)**	**M (%)**	**F (%)**	**M (%)**	**F (%)**	**M (%)**	**F (%)**	**M (%)**	**F (%)**
Same job	88.5	79.7	87.2	95.2	64.7	76.0	84.5	80.6	72.9	73.0
Same job, Different industry	1.9	7.6	.0		1.5	4.2	3.4	2.9	.0	1.6
Higher position, Same industry	1.9	3.8	.0	1.6	7.4	5.2	.0	2.9	5.9	6.6
Retired	.0	1.3	5.1	3.2	10.3	6.3	1.7	2.9	8.2	4.1
Unemployed		.0		.0		.0		.0		2.5
I don't know	3.8	2.5	2.6	.0	2.9	1.0	3.4	1.0	4.7	1.6
Back in school	.0	1.3	.0	.0	8.8	2.1	.0	1.0	1.2	4.1
Complete job and industry change	.0	1.3	2.6	.0	2.9	5.2	5.2	4.9	3.5	4.1
Other	3.8	2.5	2.6	.0	1.5	.0	1.7	3.9	3.5	2.5
Total (N)	52	79	39	62	68	96	58	103	85	122
5 YEAR										
Same job	73.1	44.3	59.0	60.3	26.6	38.7	59.6	48.5	41.7	45.4
Same job, Different industry	.0	10.1	.0	.0	1.6	6.5	3.5	3.9	.0	.8
Higher position, Same industry	9.6	15.2	7.7	6.3	17.2	12.9	3.5	7.8	17.9	16.0
Retired	1.9	10.1	25.6	19.0	32.8	25.8	15.8	17.5	20.2	16.0
Unemployed	.0	.0	.0	.0	1.6	.0	.0	.0	.0	1.7
I don't know	3.8	8.9	2.6	7.9	4.7	4.3	8.8	4.9	3.6	3.4
Back in school	5.8	2.5	.0	1.6	.0	1.1	1.8	1.9	4.8	10.1
Complete job and industry change	1.9	6.3	5.1	3.2	10.9	10.8	3.5	13.6	8.3	5.9
Other	3.8	2.5	.0	1.6	4.7	.0	3.5	1.9	3.6	.8
Total (N)	52	79	39	63	64	93	57	103	84	119

Table 4.46 shows that the large majority of respondents saw their employment situation unchanged over the next year. Bruce Shoreline and Georgian Bay respondents saw the most change with retirement in those sub-regions accounting for most of the change.

The 5 year horizon in Table 4.46 exhibits a larger degree of conversion in the labour market. Retirement is an influential factor in all of the sub-regions in the next five years with the notable exception of males in Bruce In-Land. Ranging from 10.1% to 32.8% of the population plans to retire in this time period. Another important category is complete

job and industry change. Bruce Shoreline and Georgian Bay respondents plan a major employment upheaval in the next five years.

The motivations for relocation are complex and involve many factors. Respondents in this survey were asked to provide the central reason that would prompt them to relocate outside of Bruce or Grey County for employment.

Table 4.47 Factors Influencing Relocation Outside of Bruce or Grey Counties by Sub-region and Gender

Relocation Factors	Bruce In-Land		Bruce Peninsula		Bruce Shoreline		Grey In-Land		Georgian Bay	
	M (%)	**F (%)**	**M (%)**	**F (%)**	**M (%)**	**F (%)**	**M (%)**	**F (%)**	**M (%)**	**F (%)**
Better Wage	15.1	13.6	25.6	15.4	29.4	10.5	14.3	8.7	19.5	14.8
More Opportunity for Jobs and Promotions	9.4	16.0	10.3	18.5	16.2	8.4	7.1	11.7	13.8	10.9
Better Education and Training Facilities	1.9	2.5	.0	1.5	1.5	2.1	.0	1.0	.0	2.3
Family and/or Personal Reasons	24.5	16.0	5.1	23.1	10.3	13.7	1.8	6.8	4.6	10.9
Nothing	43.4	46.9	46.2	36.9	36.8	63.2	75.0	65.0	47.1	56.3
Retired	1.9	.0	.0	1.5	.0	1.1	.0	2.9	1.1	.0
Other	3.8	4.9	12.8	3.1	5.9	1.1	1.8	3.9	13.8	4.7
Total (N)	53	81	39	65	68	95	56	103	87	128

Table 4.47 demonstrates that most respondents felt that nothing would motivate them to relocate outside of the region for employment. This is a telling point and one that confirms that labour market realities are not the sole motivating factor for area residents. The high number of respondents, males especially, cited better wages as an incentive for relocation. Pointing to the fact that better wages would surely improve retention of workers in Bruce and Grey. Closely related is the fact that both male and female respondents desired a richer pool of employment to draw from. Ranging from 7.1% to 18.5% of respondents saw more opportunity for jobs and promotion would encourage them to move outside of the region.

Further efforts were made to try and understand the changes that occur in labour supply for the area. From Table 4.47 it can be seen that ties to community are strong with many replies indicating nothing would make them relocate. Hence, respondents were asked to rate the factors they liked and disliked most about their community in Table 4.48 and Table 4.49.

Table 4.48 Factors Respondents Liked Most About the Community They Live In by Sub-region and Gender

Like Most	Bruce In-Land		Bruce Peninsula		Bruce Shoreline		Grey In-Land		Georgian Bay	
	M (%)	F (%)	M (%)	F (%)	M (%)	F (%)	M (%)	F (%)	M (%)	F (%)
Quality of Life	50.0	46.4	40.0	23.1	35.1	28.8	41.3	32.0	25.8	29.2
Affordable	9.3	3.6	7.5	3.1	2.7	.0	4.8	4.1	1.1	3.8
Family / Friends / Neighbours	33.3	25.0	15.0	26.2	12.2	28.8	19.0	32.0	23.6	28.5
Convenience	3.7	6.0	2.5	1.5	2.7	4.5	.0	4.1	9.0	5.4
Community and Rural Living	1.9	11.9	10.0	18.5	18.9	15.3	14.3	6.6	15.7	13.1
Natural Environment	.0	1.2	10.0	7.7	12.2	14.4	9.5	12.3	16.9	11.5
Quiet	1.9	4.8	15.0	20.0	16.2	4.5	9.5	8.2	7.9	6.9
Safety	.0	1.2	.0	.0	.0	3.6	1.6	.8	.0	1.5
Total (N)	54	84	40	65	74	111	63	122	89	130

The above table shows an overwhelming majority of respondents in the sub-regions felt that the intangibles of their area are what they like most about living there. Three responses comprised the large majority of replies: quality of life, family/friends/neighbours and community and rural living.

Table 4.49 Factors Respondents Disliked Most About the Community They Live In by Sub-region and Gender

Dislike Most	Bruce In-Land		Bruce Peninsula		Bruce Shoreline		Grey In-Land		Georgian Bay	
	M (%)	F (%)	M (%)	F (%)	M (%)	F (%)	M (%)	F (%)	M (%)	F (%)
Lack of Services / Shopping	17.0	31.6	15.4	31.3	25.0	36.3	19.0	24.8	20.2	17.6
No Jobs	18.9	16.5	5.1	4.7	5.6	7.1	9.5	9.1	13.5	16.8
Small Town Mentality	30.2	16.5	5.1	9.4	18.1	15.9	12.7	13.2	6.7	13.0
Nothing To Do	13.2	6.3	15.4	4.7	5.6	2.7	6.3	5.8	6.7	10.7
Nothing	13.2	25.3	25.6	21.9	20.8	11.5	28.6	28.1	22.5	23.7
Weather	1.9	.0	7.7	12.5	18.1	21.2	4.8	5.8	3.4	4.6
Tourism	1.9	.0	12.8	7.8	5.6	1.8	3.2	1.7	.0	2.3
Taxes	.0	.0	2.6	.0	1.4	.9	.0	.8	7.9	.8
Lack of Public Transit	3.8	1.3	2.6	3.1	.0	1.8	1.6	1.7	2.2	.0
Crime	.0	1.3	2.6	1.6	.0	.0	.0	2.5	1.1	2.3
Migrants from the city / Rapid growth	.0	1.3	.0	.0	.0	.9	6.3	2.5	.0	2.3
Local politics	.0	.0	.0	1.6	.0	.0	1.6	.0	4.5	1.5
Other	.0	.0	5.1	1.6	.0	.0	6.3	4.1	11.2	4.6
Total (N)	54	84	40	65	74	111	63	122	89	130

There was a more dispersed set of replies from respondents on what they disliked most about their community. One dislike that was prominent in all of the five sub-regions was

the lack of services/shopping. No jobs also had high standing in Bruce In-Land and Georgian Bay. Again, the fact that almost all sub-regions had over 20% of respondents citing that they dislike nothing about where they live. Further serving as testimony to the strong bonds respondents feel to their respective communities.

4.6 Employee Survey Gap Analysis

A central component of this project was to provide an analysis of the 'gaps' in skills that existed in the labour market. Aside from the core set of questions regarding census and employment facts, the survey attempted to capture the more elusive qualities in the labour market. Subjective tools such as a self-assessment of skills as well as predictions on future employment and mobility plans and labour force upgrading activities were used.

The difficulty in obtaining a verifiable measure for skill levels across industry and occupations is substantial. As a result, a self-assessment of skills was used. These self-assessments will serve as the gap analysis' cornerstone; serving as an indication of which labour force skills are strong and which are weak. Additionally, a crucial gap that was identified through this survey was between male and female respondents skill levels. Finally, the sub-regional disparities that were exposed will be restated.

4.6.1 Skills Gap

To begin to identify the gaps that exist for skills in the area an understanding of their position relative to one another is first necessary. Table 4.50 presents a series of descriptive statistics for the self-assessment of skills. Information is presented at the county level for Bruce and Grey; sub-regional information is covered later in section 4.6.3

Table 4.50 Descriptive Statistics and Ranking of Skills by County

	Bruce County			Grey County		
	Mean	Std. Deviation	Mean Ranking	Mean	Std. Deviation	Mean Ranking
Verbal Communication	4.25	.73	3	4.22	.75	2
Reading	4.41	.79	1	4.39	.78	1
Written Communication	4.05	.87	7	4.01	.85	6
Teamwork	4.16	.76	6	4.02	.69	5
Social, Interpersonal	4.26	.74	2	4.17	.76	3
Artistic, Creative	3.38	1.16	10	3.40	1.14	9
Math	3.67	1.07	9	3.65	1.01	8
Organizational	4.18	.92	5	4.05	.98	4
Physical, Mechanical	4.21	1.43	4	3.75	1.15	7
Computers	3.69	0.76	8	3.38	0.87	10

The *top three skills* assessed by mean responses in both Bruce and Grey are:

- Verbal skills
- Reading skills
- Social/interpersonal skills

The standard deviation for all of these skills was under 0.8 indicating a tight dispersion of responses around the mean. Skill areas *rated as weak* by Bruce and Grey employees were:

- Computer skills
- Math skills

The importance of basic numeracy cited by employers and familiarity with computers in an increasingly digitized workplace underscores the need for improvement in these skill areas. Skills that also *could be improved upon* as perceived by respondents were:

- Written communication
- Teamwork
- Organizational skills

Artistic/creative skills were rated very low by respondents. However, the large standard deviation in both counties reveals a wide distribution of assessments with respect to this skill. A similar pattern emerges with physical/mechanical skills.

Besides the workplace, a key source of skills training comes from education. A series of statistical tests measuring the degree of association between education and skill levels was made in section 4.5.1. Another test, which can be used to establish the statistical significance of a relationship between two variables, is the Pearson's r test. Having established certain relationships between education and skill levels in section 4.5.1, the application of Pearson's r is relevant because it allows for an understanding of the scale of the *linear* relationship between the two variables. The Pearson's r coefficient takes on the form of the more the x, the more the y, and vice versa and has a range from -1 (perfect inverse relationship) to +1 (perfect direct relationship). Results are presented at the two county levels.

Table 4.51 Pearson's r Test of Statistical Significance between Selected Skills and Education Levels

	Value	Approx. Sig.
Verbal	.189	.000
Reading	.244	.000
Written	.226	.000
Social / Interpersonal	.174	.000
Teamwork	.074	.003
Artistic / Creative	-.060	.015
Mathematics	.192	.000
Organizational	.144	.000
Mechanical / Physical	-.035	.167
Computer	.263	.068

The above table confirms the trends found in the preceding analysis. Trends that materialize from the data are *relatively strong correlations* that exist between education and skill levels for:

- Reading
- Writing
- Computing
- Verbal Communications
- Mathematics

These skills show positive and robust correlations signifying that higher education in respondents produced higher skills levels in these areas. Those skills that demonstrate *weaker relationships* are:

- Social/Interpersonal
- Organizational
- Teamwork

The correlations between these skills and education are still positive but not as strong. This infers that these skills may not be amenable to improvement solely through higher education. Other tools for improvement, for example workplace training, may be advisable.

The correlation between education and all skills is statistically significant as denoted by the approximate significance column. All skills have a significance smaller than 0.05 indicating an acceptable level of confidence in the Pearson's r test. The exceptions are artistic/creative and mechanical/physical; skills that are not correlated with education.

4.6.2 Gender Gap

Owing to the difference in male to female respondents established in section 5.4.2.1, analysis was completed accounting for the higher number of female respondents to the survey. By way of breaking down the analysis into gender specific categories a disparity between male and female respondents was exposed. Both male and female respondents indicated a higher level of perceived competence in certain skill categories.

Male respondents perceived their skills as more advanced in:

- Teamwork
- Mathematics
- Mechanical/Physical
- Computer Spreadsheets

Female respondents were more apt to find their skills superior in the following categories:

- Verbal

- Artistic/Creative
- Organizational
- Computer Word Processing

This difference suggests that gender should be accounted for when targeting skills programming. Moreover, that existing systems of education and training may influence the acquisition of skills for each gender.

4.6.3 Sub-region Gap

Another pertinent gap that was revealed was the disparities that prevail within Bruce and Grey counties. Bruce and Grey cover a large land area with a variety of geographic and economic features across its mass. These influences affect regional labour markets quite distinctly. The division of these two counties into five sub-regions allowed for a better understanding of skilled labour at a sub-regional level. The analysis is covered in-depth in section 5.5.1.3.

On the whole, the impression of residents in Bruce County is that they have a more complete skill set relative to those respondents in Grey County. Ranking the mean response on the self-assessment in all of the ten categories found Bruce respondents to be positioned in the top two or three spots out of the five sub-regions more often than Grey respondents. There were few exceptions to this trend.

The ranking of the mean responses for skills in each of the sub-regions produced the following standing:

- Bruce In-Land
- Bruce Peninsula
- Bruce Shoreline
- Grey In-Land
- Georgian Bay

FACT SHEET

Bruce Grey Skills Inventory: Present and Future

EMPLOYER PROFILE

The study carried out by the School of Environmental Design and Rural Development at the University of Guelph for the Bruce Grey Huron Perth Georgian Triangle Training Board in 2004 included a labour market profile and thousands of surveys with high school students, area employees and employers in Bruce and Grey counties. Five sub-regions were also examined: Bruce In-Land, Bruce Peninsula, Bruce Shoreline, Grey In-Land, and Georgian Bay.

This fact sheet focuses on some of the key findings gathered from just over 400 employers surveyed. This information provides a basis for understanding the present and future needs of the local employers.

AVERAGE INCOME

The average annual income for local employees is $32655

- The highest paying industry was utilities with an average salary of $70 000
- The lowest paying industry was accommodations at $21 502

ASSESSMENT OF EMPLOYEES

Employees were assessed in two categories: management and general labour. Their skills were assessed on a scale of one to five with five as the highest level of satisfaction. On average:

- Employers were more satisfied with the quality of management skills and work (3.9) than in the quantity of management available to fill the positions (3.5) or availability of management workforce from the community (3.4); employers expressed great satisfaction with the stability of the management workforce (4.3)
- Employers identified similar trends with the general labour workforce with quality of management at 3.8; quantity of employees at 3.6; availability of employees at 3.7; and finally stability of employees at 4.1
- Scores regarding management were consistently higher than those in general labour
- Employers rated the quality of their workforce as most critical to their success at a score of 3.7
- The divergences between quality of workforce and available of workforce was most marked in the construction, manufacturing and finance industry categories

SKILLS IN INDUSTRY

Employers were asked to consider transferable skills in a series of questions.

- They rated verbal, customer service and math skills as the most important
- In close relation to the most important skills, employers rated customer service, decision-making and teamwork skills as the most difficult skills to find in employees

Of the Top 100 Employers of the county surveyed, most identified a need for employees in skilled trades to meet retirement rates of between 20-40% in the next five to ten years

RECRUITMENT OF EMPLOYEES

The majority of employers (70%) recruit from outside of the company rather than inside the company while 19% responded that "it depends."

- 83% of employers do not find it difficult to recruit employees
- Only 9% hire employees from outside the county
- Asked if they felt the school board was providing a qualified workforce, 78% responded that the board was providing a very good or good workface in terms of qualifications
- 23% of survey respondents expect the labour force to grow in their industry, with greatest number of employers in the manufacturing and public administration responding positively; however only 81new positions were expected to be added by businesses across industries
- Several of the largest employers in the utilities and manufacturing sectors indicated that their retirement rates could be between 40-50% in the next five years. This could lead to upwards of 1,500 new, highly paid skilled trade positions, which will be available to local residents
- Although most employers were aware of mentoring and co-op placement programs, many would not participate due to the timing of the program or their perception that they could not offer much in the way of training

5.0 Employer Survey

5.1 Introduction

The final component of the project was the employer survey. The main focus of the survey was to gather labour market information at the county level for Bruce and Grey. Interest was also expressed by the steering committee to understand in greater detail the labour requirements of the top 100 employers in the two counties.

5.2 Survey Design

The design of the survey instrument was based upon three criteria. The first was the need to meet the requirements outlined in the project terms of reference. The terms of reference stated as a central component of this undertaking that labour market information be gathered in three major areas: skills, training and education. These principal areas were then supplemented with information on the employer's current workforce, the employer's future skill requirements, and the employer's ability to retain required transferable skills. Taken together they provide a platform for describing and interpreting the local labour market from the employer's perspective.

The second was the need to design the instrument in a manner that would allow for comparison with the other two surveys in the project, the high school and employee survey. This was a critical element in design as a primary output of the project was to perform a gap analysis between the three surveys. Additionally, the need for comparison to Statistics Canada Census data was necessary so as to gauge the representativeness of the sample and situate the sample data within the context of the population at large.

A final consideration was the need to collect data in a manner that was consistent with the parameters needed for an interactive web tool. One of the project deliverables was a searchable online database that would represent the labour market information gathered by the project.

These design considerations were managed by a process of matching the project information requirements with relevant Census questions as well as similar questions from the other two surveys. Wherever applicable, standardized categories (i.e. – North American Industrial Classifications Standard, National Occupation Classification Standard) give full reference in standard format.

A draft version of the survey was generated and provided to the steering committee for review and comments. Revisions suggested by the steering committee were incorporated into the draft version. A pre-test of the draft version was conducted on Sept 3-4, 2004. The purpose of this pre-test was to ensure clarity of the questions, test the data input spreadsheet, verify the survey instrument's output and validate the randomized calling process. Twelve surveys were conducted during the course of this pre-test. Consultations with the project team and approval from the steering committee produced a final version of the survey instrument.

5.2.1 Survey Process

A team of six graduate students was hired to conduct the surveys. The survey commenced on September 8, 2004 and concluded on November 4, 2004. Calls were made between 9:30am and 5:00pm from Monday to Friday. No surveys were carried out on weekends.

5.3 Sampling Strategy

There were two components to the employer's survey. The first component was the surveying of a random sample of employers in Bruce and Grey Counties. These surveys were conducted using a telephone interview. Employers for the survey were selected according to a randomized calling strategy from a comprehensive list of employers provided by the Steering Committee partners, the Bruce Community Futures Corporation and the Saugeen Economic Development Corporation. The first attempt was made to speak to the owner or someone in a senior position in the business. Failing this on-duty managers were sought out.

The second component was the in-person interviewing of the top 100 employers. As previously mentioned, this was a targeted selection based on the guidance of the steering committee. Three senior researchers conducted personal interviews with employers that were willing to participate in the survey from September to November. All 100 employers were contacted to participate in the survey. The results using the preceding sampling strategy can be found in section 5.4.1.

5.4 Survey Analysis

5.4.1 Response Rate

The sampling strategy outlined above produced the following results.

Table 5.1 Survey Response Rate

Completed Surveys-	**General**	A	**368**
	Top 100		**36**
Refusals -	**General**	B	**2,167**
	Top 100		**83**
No Response -	**General**	C	**16**
	Top 100		**0**
Total Phone Calls Made		A+B+C	**2,266**
Response Rate		A / (A + B)	**17.8%**

From the lists provided by the steering committee, there were a total of 3,848 employers in Grey County and 2,649 in Bruce County. A total of 2,266 businesses were randomly selected and contacted to participate in the survey. Of the total number of businesses

contacted, 404 (A) agreed to participate in the survey. An over sample of 5% was purposely built into the sample so incomplete or defective surveys could be discarded.

In addition to the telephone survey, efforts were made to involve the top 100 employers in the project. A total of 110 businesses were contacted to participate in the part of the survey. Of this number, 36 agreed to participate and were interviewed using the same survey instrument as the phone survey. However, additional labour force information was also collected and is included in Section 5.5.

5.4.2 Respondent Profile

The first component of the survey was designed to identify the existing labour force employed in Bruce and Grey Counties. This section asked the employers questions about the age and sex distribution of their workforce; the number of employees, years in business and the reason the business was established in the counties.

5.4.3 Industry Concentrations

Before analysis of the sample data can begin it is first necessary to establish the validity of the sample. The sample is valid if it is deemed to be representative of the population that it is taken from. Following the procedures outlined in section 5.3, a sample of Bruce and Grey employers were contacted to participate in the survey. Three hundred and seventy seven (377) random employers were surveyed, 65% from Bruce County and 35% from Grey County. Included in the total number of surveys are 36 of the top 100-targeted employers completed survey interviews. The number of respondents is provided by industry classification in Table 5.2, along with selected employment information from those businesses.

Table 5.2 Industrial Sector Involved in Survey

Industry	NAISC Code	# Of employers	% Of Total employees	% Of F/T employees	Avg. # of employees	Years in Business
Agriculture	1	6	1.4%	80	19	21
Utilities	2	2	42.4%	75	1750	40
Construction	3	26	2.8%	78	9	19
Manufacturing	4	12	2.0%	77	13	38
Retail Trade	5	101	9.8%	32	8	20
Transportation	6	2	4.3%	97	170	36
Finance	7	8	0.5%	64	5	25
Scientific, Technical	8	1	0.0%	100	2	30
Business, Mgmt	9	1	0.1%	66	3	9
Educational	10	2	0.8%	95	31	11
Health Care	11	19	5.6%	68	26	15
Recreation	12	28	4.5%	65	13	22
Accommodations	13	105	20.8%	41	16	11
Other Services	14	51	3.0%	54	5	10
Religious	15	9	1.0%	27	9	52
Public Administration	16	4	1.1%	60	19	37
All Industries		377	100.0%	61	120	17.8

From all respondents, the average number of years these businesses were in operation was 17.8 years; a large range with the oldest business being over 150 years and the youngest several months old. There were 366 respondents when asked if the business was started in the Bruce Grey County area. Most businesses (347) businesses were started in the community. The most common reason given for why the business was started in the community was because it was "their home", followed by "the need was there", "raw materials were there", and the owner "liked the area".

5.4.4 Sex and Age Distribution

The sex distribution of the employees employed by the businesses that participated in the surveys is provided in Table 5.3. Of the employers surveyed, 50.7% of the employees were male and 49.3% of the employees were female.

Table 5.3 Respondents Sex Compared to Country and Province

	Employer Survey	Top 100 Employers	Ontario
Male	50.7%	49.1%	48.9%
Female	49.3%	50.9%	51.1%
Total (N)			

The above table shows that Bruce and Grey county are consistent with Provincial averages for males and females in the workforce.

Employers were asked to provide the number of employees and the breakdown of the percentage of employees that worked in full and part time positions for their business. The average number of employees for all businesses surveyed in Bruce and Grey were

10.7, when the utility industry was removed from the sample. The largest employer was in the utilities industry employing more than 3,500 employees and the smallest were in the accommodations with only one employee. The average turnover rate for all industries was 5.7% of full time employment, and the average number of persons expected to retire was 1%. A striking anomaly was in the utility industry where the average age of the employees was 52 and the expected retirement rate will be in the 40-50% range in the next ten years.

5.4.5 Average Income of Employees

Employers were asked to provide information regarding the average income for their employees. Employers provided information in either yearly or hourly rates. Hourly rates were converted into annual salaries using a standard 2,100-hour work year.

The results of income are reported and compared to industry information for the province in Table 5.4.

Table 5.4 Average Incomes of Employees

Industry	Average Salary	Average without Utilities
Agriculture	19500	19500
Utilities	70000	X
Construction	28400	28400
Manufacturing	31667	31667
Retail Trade	25615	25615
Transportation	40333	40333
Finance	32450	32450
Scientific, Technical	32633	32633
Business, Mgmt	32633	32633
Educational	38800	32633
Health Care	41514	41514
Recreation	27526	27526
Accommodations	21502	21502
Other Services	33798	33798
Religious	28600	28600
Public Administration	29200	29200
All Industries	32655	28537

5.4.6 Assessment of Existing Labour Force

Employers were asked to provide their opinion on a range of questions relating to existing employees. They were called upon to make assessments of two categories of employees: management and general labour. For both categories of employees, inquiries were made as to the quantity, quality, availability and stability of employees in their given category.

For the purposes of the survey, the quality of the labour force was described, as the employees presently in the position possessed the appropriate skills to perform their functions adequately. Quantity meant that the employer was able to find the desired

number of employees possessing the required skills for the position. Availability meant that the type of employee the employer was searching for was available in the area and was not currently employed or was seeking to advance or change positions. Finally, stability referred to the duration an employee stayed in the position, in other words, the employer was not constantly replacing and training new employees for a specific position.

The results of the employer's assessment of management positions are provided in Table 5.5. Each question was assessed on a scale of 1 to 5, with one representing the lowest score and five representing the highest possible score.

Table 5.5 Assessment of Management Positions

Industry	Number of Managers	Quality of Management	Quantity of Management	Availability of Management	Stability of Management
Agriculture	1.5	3.3	3.0	2.7	4.7
Utilities	800	4.0	4.0	2.0	4.0
Construction	1.8	4.1	3.7	3.4	4.4
Manufacturing	3.1	4.0	2.4	2.4	4.2
Retail Trade	3.0	4.2	4.0	4.0	4.2
Transportation	1.0	5.0	3.0	3.0	4.0
Finance	0.8	3.5	3.5	4.0	4.5
Scientific, Technical	1.0	4.0	4.0	4.0	4.0
Business, Mgmt	1.0	3.0	4.0	4.0	4.0
Educational	2.0	3.5	4.0	3.5	4.5
Health Care	3.7	4.5	3.4	3.8	4.4
Recreation	2.9	4.2	4.0	3.7	4.2
Accommodations	2.8	4.4	4.2	4.2	4.1
Other Services	1.8	4.2	4.2	4.2	4.2
Religious	2.8	4.1	4.1	4.8	4.8
Public Administration	4.0	3.0	1.0	1.0	4.0
All Industries	2.7	3.9	3.5	3.4	4.3

Most employers interviewed were small businesses with 2.7 managers on average. This figure was generated by excluding the large number of managers in the utility sector. Most thought the quality of management employees was high with an average score of 3.9. Employers rated the quantity and availability of management somewhat lower with average scores of 3.5 and 3.4 respectively. Certain industries ranked these classifications very low, such as utilities, agriculture and public administration. Other industries seem to have little difficulty finding quality management personnel. All industries ranked the stability of their management workforce as very stable with an average score of 4.3

The same questions were asked of employers with respect to the second category: general labour. The results are provided in Table 5.6.

Table 5.6 Assessment of General Labour

Industry	Quality of Employees	Quantity of Employees	Availability of Employees	Stability of Employees
Agriculture	2.8	2.2	2.2	4.0
Utilities	4.0	4.0	4.0	4.0
Construction	3.5	2.7	2.8	3.7
Manufacturing	3.2	2.4	2.4	3.5
Retail Trade	3.9	3.9	3.9	3.7
Transportation	4.0	2.5	2.5	4.5
Finance	4.4	3.6	4.4	5.0
Scientific, Technical	5.0	5.0	5.0	5.0
Business, Mgmt	3.0	5.0	5.0	4.0
Educational	3.5	4.5	4.5	4.0
Health Care	4.2	3.7	3.9	4.4
Recreation	4.2	3.9	4.0	4.1
Accommodations	3.7	3.5	3.6	3.0
Other Services	3.8	3.8	3.7	3.8
Religious	4.8	4.6	4.8	4.8
Public Administration	3.0	3.0	3.0	4.0
All Industries	3.8	3.6	3.7	4.1

Scores for labour were consistently lower than management scores. Out of a possible score of 5, where 5 is the highest, all measures were lower on average. The largest gaps were in construction, manufacturing and finance, presumably because there are more demands for labour in those sectors and the availability of quality employees is in higher demand.

5.4.7 Employer Recruitment Practices

Employers were asked to provide information about how they recruited their current workforce. The employers were asked if they generally hire from inside the company, outside the company, it depends or don't know. Three hundred and sixty-two employers responded to the question and 70% of the respondents indicated that they hired from outside of the company. The next most frequent response was "it depends" at 19% followed by employers that hired from within the company at 8%. Various industries had different hiring practices. The breakdown for recruitment by industry is provided in Table 5.7.

Table 5.7 Recruitment Sources

Industry	Hire from Outside the Company	Hire from Inside the Company	It depends	Don't Know
Agriculture	1	0	2	0
Utilities	0	2	0	0
Construction	19	5	6	0
Manufacturing	8	3	2	1
Retail Trade	84	6	8	1
Transportation	0	0	1	0
Finance	0	2	0	2
Scientific, Technical	0	2	1	2
Business, Mgmt	0	1	0	2
Educational	0	1	0	0
Health Care	12	1	2	0
Recreation	19	1	19	0
Accommodations	57	1	23	2
Other Services	48	1	3	0
Religious	5	2	0	0
Public Administration	2	0	2	0
All Industries	255	28	69	10

A follow-up question was asked about the difficulty employers had in recruiting employees. The majority (291 or 83%) of employers indicated they did not have a great deal of difficulty finding employees, while 55 (16%) said they did (Table 5.8). Employers were then asked if they had to hire from outside Bruce and Grey Counties to find the available skills they required. Once again the majority (309 or 87%) said they could find the skills locally and only 33 (9%) suggested they had hired from outside the county to find the skills they required (Table 5.9).

This would seem to indicate that if employers are not able to find employees with the skills they require within the company, they are usually able to find the skills quite easily and from the local labour pool. These results are consistent with the assessment of their existing labour force.

Table 5.8 Employers Difficulty Recruiting Employees

Industry	Find it difficult to recruit employees	Do not find it difficult to recruit employees	Don't know	Total
All Industries	55	291	6	352
	16%	83%	2%	

Table 5.9 Employers Required to Hire from Outside County to Find Skills

Industry	Hire from outside the County	Have not Hired from outside the County	Don't know	Total
All Industries	33	309	15	357
	9%	87%	4%	

5.5 School Board and Training

Employers were asked to express an opinion as to whether or not the local school board provided them with employees equipped with a suitable skill level. They were asked to rate the capacity of the local boards to provide a qualified workforce on a scale of 1 to 5; where 5 was very good, and 1 being very poor. Some employers (18%) thought the school board was very good at providing a qualified workforce. The majority, 60% thought they were providing a good workforce and 10% thought they were providing an average workforce. Only 8% and 4% thought they were poor or very poor at proving a qualified workforce (Table 5.10).

Table 5.10 Employers Perception of School Board

Industry	Very Good	Good	Average	Poor	Very Poor
All Industries	18	60	10	8	4

Employers were asked about their internal training programs. Only 41% of the employers that responded indicated that they provided some employee training. Of the employees that provided training, 58% provided training in job specific skills, 10% provided training as an apprenticeship and no employers provided basic skill training, such as math, reading etc. The remaining employers that provided training programs indicated that training was in other categories, such as computer and life skills.

5.6 Future Labour Force Requirements

The survey attempted to determine the future growth of employment opportunities in Bruce and Grey Counties in the coming years. Employers were asked to comment on their expectation that their workforce would increase, decrease, stay the same or don't know. In addition, employers were asked to predict the attrition rate stemming from retirement for their employees in future years. The following table (Table 5.11) provides the growth projections for all industries and then the number increase and retirement projections by industry.

Table 5.11 Growth Expectation and Retirement Rates by Industry

Industry	Will increase	Will decrease	Will stay the same	Don't know	Total Number Increase/ Decrease	Retirement Rate %
Agriculture	2	0	2	0	0	0.4%
Utilities	1	0	1	0	0	45.0%
Construction	13	0	13	0	2	0.4%
Manufacturing	3	0	9	2	38	0.4%
Retail Trade	5	1	19	77	7	0.9%
Transportation	0	0	0	2	18	0.0%
Finance	2	0	5	0	0	1.4%
Scientific, Technical	0	0	1	0	0	2.4%
Business, Mgmt	0	0	1	0	0	3.3%
Educational	0	0	2	0	0	0.6%
Health Care	3	1	7	7	7	0.9%
Recreation	9	0	8	11	0	0.0%
Accommodations	27	3	30	44	7	0.0%
Other Services	16	1	18	17	2	0.1%
Religious	3	0	6	0	0	1.0%
Public Administration	3	0	0	2	0	1.8%
All Industries	87	6	122	162	81	3.7%

Growth rates are very low in the two counties as is shown in Table 5.11. Of the 377 businesses that were surveyed, 87 or 23% of employers thought their business would grow. The manufacturing and public administration industries exhibited the greatest number of businesses indicating their workforce would increase in the next five years.

5.6.1 Critical Factors for Future Success

Employers were asked to rate the importance of four factors as they related to the future success of their business: quality of work, improved worker productivity, expansion of workforce and improved business management. Respondents were asked to rank these factors from 1 to 5 with 1 being of little importance and 5 being very important. Factors varied across industries with the results are found in Table 5.12.

Table 5.12 Critical Factors for Future Success of Business

Industry	Quality of Workforce	Improving Worker Prod	Expansion of workforce	Improved Bus. Mgmt.
Agriculture	4.7	3.7	2.7	3.7
Utilities	5.0	4.0	2.0	4.0
Construction	4.8	3.7	3.1	3.8
Manufacturing	3.8	3.3	2.9	3.6
Retail Trade	3.3	2.6	2.2	3.1
Transportation	1.0	1.0	5.0	3.0
Finance	4.5	2.3	2.8	3.0
Scientific, Technical	4.4	2.6	2.8	3.0
Business, Mgmt	4.4	2.6	2.8	3.0
Educational	4.3	3.0	3.0	3.5
Health Care	4.0	2.8	2.0	2.5
Recreation	3.5	3.2	2.7	3.1
Accommodations	3.6	2.6	2.5	3.6
Other Services	4.0	3.8	2.7	3.3
Religious	4.5	2.8	2.0	3.0
Public Administration	4.5	3.5	3.5	4.0
All Industries	3.7	3.0	2.5	3.4

The quality of the workforce was ranked as most important factor for future success with an average score of 3.7 across all industries. Improved business management and improved worker productivity were ranked second and third with scores of 3.4 and 3.0. Expansion of workforce was ranked last across all industries with a score of 2.5.

5.6.2 Employer Skills Requirements

Employers were provided with nine transferable skills and asked to rate each skill on a scale of 1 to 5, with 1 representing a skill that was not important for future employees to possess and 5 representing a skill that was very important for future employees to possess. The list of skills is:

1. Math Skills
2. Reading Skills
3. Written Communication Skills
4. Verbal Communication Skills
5. Computer Literacy Skills
6. Customer Service/Social Interpersonal Skills
7. Problem Solving Skills
8. Decision Making Skills
9. Team Work Skills

Employer responses were averaged by industry to determine which skills are considered most important in each industry, as well as an average for each skill across all industries.

Table 5.13 Importance of Various Skills by Industry

Industry	Computer Skills	Team Work	Decision Making	Math Skills	Problem Solving	Reading Skills	Verbal Skills	Written Skills	Customer Service
Agriculture	1.6	4.3	2.3	3.7	3.3	2.7	4	3	3.3
Utilities	0.9	4.4	2.9	4.1	3.9	3.6	3.9	2.6	3.6
Construction	1.9	4.6	3.7	4.1	4	3.6	3.9	3.4	3.9
Manufacturing	1.4	1.6	1.5	3	1.5	1.2	2.5	1.2	4.4
Retail Trade	4.4	4	4.7	4	4.3	4.3	4.3	4	5
Transportation	3	4	4	1	1.5	3.5	1.5	2	3.5
Finance	3	4	4	5	4	4	5	3	3
Scientific, Technical	3	4	5	3	5	5	5	4	4
Business, Mgmt	5	5	4	2	5	4	5	5	4
Educational	2.4	3	4.4	3.3	4.4	3.9	4.8	3.9	4.5
Health Care	2.7	3.8	3.3	3.7	3.5	4	4.2	3.9	4.3
Recreation	1.1	2.7	1.7	3.3	1.5	1.8	4	2.1	4.4
Accommodations	1.5	2.8	2.5	2.4	2	1.8	4.5	1.5	4.6
Other Services	4	4.4	4	3.6	4.4	4.4	4.6	4.2	4.6
Religious	1.4	5	4.5	4.5	4.5	5	5	5	5
Public Administration	2.4	3.7	3.3	3.7	3.4	3.4	4.2	3.2	4.2
All Industries	2.5	3.8	3.5	3.4	3.5	3.5	4.2	3.3	4.1

From Table 5.13, it appears that verbal skill and customer service skills are on average the most important across all industries with an average score of 4.2 and 4.1 respectively. Teamwork, math skills, reading and problem solving skills are also ranked as being very important skills to all industries. This information is interesting in that the skills the employers are reporting as important to their industry are not the hard skills that a student learns in school, but soft skills that a person would learn from real life experiences. Skills such as teamwork and customer service/interpersonal skills are skills usually learned from home, group activities and work experience, and they are often not skills that someone can take a course to learn.

Based on the survey responses, the following Table 5.14 ranks the top three skills for each industry sector.

Table 5.14 Most Important Skills by Industry

Industry	First	Second	Third
Agriculture	**TW**	**V**	**M**
Utilities	**R**	**M**	**TW**
Construction	**PS**	**M**	**DM**
Manufacturing	**TW**	**M**	**PS**
Retail Trade	**CS**	**M**	**V**
Transportation	**DM**	**TW**	**CS**
Finance	**CS**	**DM**	**PS**
Scientific, Technical	**DM**	**V**	**PS**
Business, Mgmt	**C**	**TW**	**PS**
Educational	**M**	**V**	**DM**
Health Care	**V**	**CS**	**DM**
Recreation	**CS**	**V**	**R**
Accommodations	**CS**	**V**	**M**
Other Services	**CS**	**V**	**TW**
Religious	**CS**	**V**	**PS**
Public Administration	**CS**	**R**	**TW**

TW= Team Work	**CS= Customer Service**	**V= Verbal**
PS= Problem Solving	**DM= Decision Making**	**M= Math**
R= Reading	**C= Computer**	**W=Written**

Of note is the importance of customer service/interpersonal skills and verbal skills, which were ranked in the top three in nine of the sixteen industries. Decision-making, teamwork and math are also ranked in the top three consistently, indicating that the soft skills are important transferable skills across all industries.

5.6.3 Difficulty in Obtaining Skills

After identifying the most important skills for their industry, employers were asked to rate the difficulty in finding these skills when hiring new employees. Table 5.15 provides the ranking of the most difficult skills to find for each industry.

Table 5.15 Employers Difficulty in Finding Skills

Industry	Computer Skills	Team Work	Decision Making	Math Skills	Problem Solving	Reading Skills	Verbal Skills	Written Skills	Customer Service
Agriculture	2.5	2.7	3	3	3	2	2.3	2	1.7
Utilities	1.4	4.1	3.0	3.8	3.8	3.5	2.8	2.8	3.1
Construction	1	2.1	2.6	2.7	3.3	1.6	2.1	1.5	2.3
Manufacturing	1.8	2.9	3.1	2.7	3.1	2.1	2.9	2	2.7
Retail Trade	1	0.9	1.3	1.4	0.8	0.5	1.2	0.8	2
Transportation	3.5	2.5	1.0	1.5	1.5	1.5	3	2.5	3.5
Finance	3.3	3.3	2.3	1.7	2.3	1.7	2	1.7	2.7
Scientific, Technical	1	1	1	1	1	1	2	1	1
Business, Mgmt	1	1	3	1	2	1	1	2	2
Educational	4	3	2	3	2	1	1	1	4
Health Care	1.3	1.3	2.1	1.4	2.2	1.2	1.6	1.3	2.3
Recreation	1.9	1.6	2.2	1.8	1.8	1.5	1.7	1.8	1.8
Accommodations	0.7	1.3	1.3	1.7	0.8	0.9	1.7	1.1	1.9
Other Services	1.1	1.3	2.2	1.2	1.2	0.8	1.7	0.8	2.1
Religious	1.3	1.4	1.2	1	1	1	1	1	1
Public Administration	2.8	3	3	1.5	3	1	3.5	2.5	2
All Industries	1.9	2.1	2.1	1.9	2.1	1.4	2.0	1.6	2.3

From the results of the survey, the mean response from all industries seem to indicate that the most difficult skills to find in new employees are Customer Service, Decision Making and Team Work with average scores of 2.3, 2.1 and 2.1 respectively. This result is important when compared with the results of the most important skills for each industry, because it appears the most important skills to employers are also the most difficult to find. Table 5.16 provides ranks the top three most difficult skills to find when hiring new employees by industry.

Table 5.16 Most Difficult Skills to Obtain by Industry

Industry	First	Second	Third
Agriculture	**M**	**PS**	**DM**
Utilities	**TW**	**M**	**PS**
Construction	**PS**	**M**	**DM**
Manufacturing	**PS**	**DM**	**TW**
Retail Trade	**CS**	**M**	**DM**
Transportation	**C**	**CS**	**V**
Finance	**C**	**TW**	**CS**
Scientific, Technical	**V**	**CS**	**C**
Business, Mgmt	**DM**	**PS**	**CS**
Educational	**C**	**CS**	**M**
Health Care	**CS**	**PS**	**DM**
Recreation	**DM**	**C**	**CS**
Accommodations	**CS**	**V**	**M**
Other Services	**DM**	**CS**	**V**
Religious	**TW**	**C**	**DM**
Public Administration	**CS**	**R**	**TW**

TW= Team Work	**CS= Customer Service**	**V= Verbal**
PS= Problem Solving	**DM= Decision Making**	**M= Math**
R= Reading	**C= Computer**	**W=Written**

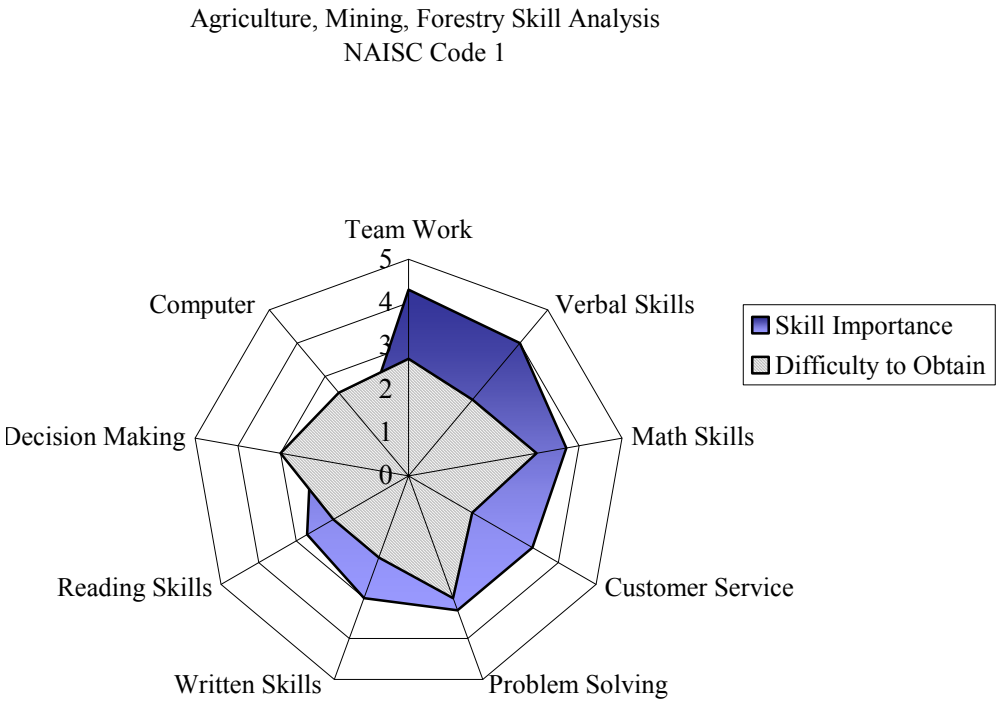
Based on the data provided by employers, the most commonly reported skill that is difficult to find across all industries was decision making which was reported by nine of the sixteen industries. Decision-making was followed by problem solving, math and computers customer service skills. It appears there may be a connection between the importance of the skill to the industry and the difficulty in finding that skill.

5.6.4 Graphing Skill Requirement and Difficulty in Obtaining Skills

The following graphs identify the variance in skill importance and the difficulty in obtaining those skills for employers from each industrial sector. Using the NAISC Code 1 (Agriculture, Mining and Forestry) industrial sector as an example, the graph (Figure 5.1) indicates that in this sector, employers indicated that teamwork, verbal skills and math skills are important skills, while computer, decision-making and reading skills are less important. Mapped on top of the importance of each skill is the difficulty the employer indicated that they had in obtaining these skills. Decision making, problem solving and math skills are more difficult to obtain than verbal skills and teamwork. Each graph gives a visual representation of the type of skill indicated as important and the difficulty in finding the skill.

Similar graphs are prepared for each industrial sector and are found in Appendix "N".

Figure 5.1 Skill Analysis and Difficulty for Agriculture



The average of all industries shows a fairly uniform importance of all skills, with teamwork ranking as slightly more important than others, and a fairly consistent difficulty in finding those skills with decision making ranking higher than the others.

Health care and construction ranked the importance of skills very differently. Health care ranked verbal skills, decision making and customer service skills as very important , with computer ranking very low. Construction ranked teamwork, problem solving and math skills high with computer and written skills much lower.

From a difficulty to obtain perspective, health care found problem solving decision-making and customer service skills more difficult to find than computer and math skills. Construction also found problem solving, decision-making, customer service and math more skills difficult to find. All analysis is found in Appendix N.

5.7 Top 100 Survey Results

One hundred employers in Bruce and Grey Counties were selected with the assistance of the steering committee. It was determined that these employers were key to the future employment in the two counties and that it was important to not only understand the same issues as the randomly sampled employers, but to expand the information base on these strategic employers. It was decided that personal interviews would be conducted with each of the top 100 employers.

All employers were contacted and of the 100 employers, only 32 agreed to participate in the survey. These employers were asked to complete the same questionnaire as the random sample of employers yet with the addition of in-person interviews more detail and insight was revealed. Results from the surveys are included in the overall analysis, however this section will specifically highlight some insight about employment in Bruce and Grey Counties.

The select group of employers included businesses from all sectors. A common thread throughout the employer interviews was the upcoming need for skilled trades due to the aging labour force. Retirement rates for most industry sectors will be between 20-40% in the next five to ten years. While most respondents did not indicate a large number of new positions would be created through expansions, they did indicate that labour requirements would be increasing due to retirements. The concern for future requirements for skilled labour was expressed from the furniture industry, to construction, manufacturing and especially the utility sector. Two employers from the utility sector (Bruce Nuclear Power and Ontario Power Generation) were key to the survey because they employed over 3,000 employees from Grey and Bruce Counties and are extremely influential to the regional labour market outlook.

5.7.1 Bruce Nuclear Power

Bruce Nuclear Power provides nuclear electricity for Ontario and has been in operation for approximately 40 years in Bruce County. It employs approximately 3,700 employees, about 2,700 full-time and 1,000 part time. The average salary for employees is $30/hr for laborers and $70-80.000 p.a. for management. It is expected that this company will increase in size in the next ten years as two units are undergoing renovations and will require additional staffing when they come back on line.

Two major issues may cause changes to employment in the area. First, since its inception and up until about three years ago, Ontario Hydro owned Bruce Power. Due to union restrictions, positions at Bruce Power needed to be filled by internal employees. This meant that very few local residents were able to apply for positions that became vacant. This situation has changed due to the sale of Bruce Power to British Energy and the company is now actively recruiting employees from the local area. The second major issue is that management estimates that retirement will approach 60% in the next five years. These two factors may provide new opportunities for skilled and semi skilled employees in the Bruce and Grey area. Management indicated that they are actively promoting these opportunities through school visits, job fairs and publications, and have hired about 600 employees since 2001.

5.7.2 Ontario Power Generation

Ontario Power Generation (OPG) is located at the same facility as Bruce power and is responsible for the storage and maintenance of waste nuclear fuel from Bruce and other nuclear plants in Ontario. Similar to Bruce Power, OPG has been, and still is, required to hire from within. This limits the opportunities for local residents to benefit from the relatively high paying, secure jobs with OPG. The average wage at OPG is similar to that of Bruce Power and employs about 230 people. All of these positions are full time and about 40% of the positions are at the manager level. OPG faces the same retirement dilemma as Bruce Power with about 50% of their employees able to retire in the next five years. It is estimated that this business will grow by 2-3% in the next five years due to increase in demand of storage of nuclear waste.

5.8 Focus Group Results

As part of the survey process, the survey teams held a focus group prior to conducting the employer survey. The purpose of this exercise was to identify issues and ensure relevant questions were included. Eight representatives from businesses in Bruce and Grey Counties attended. Dr. Harry Cummings facilitated the session.

The following questions were asked of the group:

1. What are some issues in finding good employees?
2. Identify the three most important training/education characteristics
3. Identify three things "To Do" in the region for you to meet your needs for qualified employees
4. What training do you provide employees

In response to the issues surrounding locating good employees, attendees identified the following issues:

- Range of skills necessary (i.e. – graphics, bookkeeping, computer, etc)
- Location because specialized workers with specialized skills tend to migrate toward urban centers
- Long term employees that are around long enough to become management resulting in a lack of skills for management positions.
- Engineering skills that can translate to management position.
- Lack of oral communication skills and conflict resolution skills.
- Quadruple labour force because of active recruiting program (via high schools and Fanshawe College). Therefore, very young work force and a gap for middle management.
- Hard to find trades people that have more than one license. Multi-faceted nature of this business means that people have to be re-trained. These re-training facilities are not close and thus the incentive to re-train is low despite it being subsidized.
- No training for the type of skills needed for this job. On the job training is needed and the commitment levels are not where they need to be for adequate retention.

Regarding the three most important training characteristics, the attendees provided the following skills as most important:

- People focused
- Look presentable
- Speak effectively
- Write well
- Basic Math Skills
- Good attitude
- Interpersonal (i.e. - attitude, people skills, flexibility, adaptability, work ethic)

When identifying the three things "to do" in your region to ensure qualified employees, the attendees identified the following:

- Reorient government at all levels to rural issues
- Promote trade training in schools
- Educate teachers/students/administrators about county specific needs and skills
- Local education and training facilities/e-education
- Promote co-op and internship programs
- Better links between schools and employers
- Open dialogue from employers to schools
- Positive promotion of community's lifestyle
- Make regional video of employee sectors available to high school students

Finally when asked what training employers provided to employees, they answered the following:

- Hands on training
- Apprenticeship program
- WHMIS
- Computer training
- Supervisory Skills
- Communication skills

These responses were very consistent with the responses from all employers in the larger survey. It appears that there are consistent issues and themes that all employers face, the key seems to be the soft skills such as interpersonal, team work, customer service and decision making skills.

5.9 Issues for Employers and Perceived Gaps in the Labour Force

Based on the results of the employer survey, there were several areas in which respondents reported gaps between their labour skill requirements and the capacity of the labour pool to provide these skills. It should be noted that these gaps are reported based on perception of the employer and not necessarily based strictly on employment data. Employers reported that the "quality of their workforce" was the major factor in their business succeeding in the coming years. As such, the skill levels as well as availability of these skills from labour market participants is a major concern for employers in Grey and Bruce counties.

5.9.1 Skills Deficit

Employers were asked to provide details about the most important factors in the future success of their business. Table 5.17 indicates that the most important factor for future success of the respondents industry is quality of workforce, followed by improved business management.

Table 5.17 Important Factors in Future Success of Business

Industry	Quality of Workforce	Improving Worker Prod	Expansion of workforce	Improved Bus. Mgmt.	N of businesses
Agriculture	4.7	3.7	2.7	3.7	6
Utilities	5.0	4.0	2.0	4.0	2
Construction	4.8	3.7	3.1	3.8	26
Manufacturing	3.8	3.3	2.9	3.6	12
Retail Trade	3.3	2.6	2.2	3.1	101
Transportation	1.0	1.0	5.0	3.0	2
Finance	4.5	2.3	2.8	3.0	8
Scientific, Technical	4.4	2.6	2.8	3.0	1
Business, Mgmt	4.4	2.6	2.8	3.0	1
Educational	4.3	3.0	3.0	3.5	2
Health Care	4.0	2.8	2.0	2.5	19
Recreation	3.5	3.2	2.7	3.1	28
Accommodations	3.6	2.6	2.5	3.6	105
Other Services	4.0	3.8	2.7	3.3	51
Religious	4.5	2.8	2.0	3.0	9
Public Administration	4.5	3.5	3.5	4.0	4
All Industries	3.7	3.0	2.5	3.4	377

These results are consistent with the answers provided by employers when asked about the most important skills for each industry. Table 5.18 indicates that employers rank interpersonal skills, such as customer service, verbal skills and teamwork as the most important skills ranked by all industries.

The *top three most important skills* assessed by responses by employers in all industry sectors are:

- Customer service (327 employers)
- Verbal (322 employers)

- Math (254 employers)

The standard deviation for all of these skills was under 0.8 indicating a tight dispersion of responses around the mean. Skill areas *cited as least important* by employers were:

- Written (0 employers)
- Computer (1 employer)
- Reading (57 employers)

Table 5.18 Most Important Skills Ranked by Employers

Industry	First	Second	Third
Agriculture	**TW**	**V**	**M**
Utilities	**R**	**M**	**TW**
Construction	**PS**	**M**	**DM**
Manufacturing	**TW**	**M**	**PS**
Retail Trade	**CS**	**M**	**V**
Transportation	**DM**	**TW**	**CS**
Finance	**CS**	**DM**	**PS**
Scientific, Technical	**DM**	**V**	**PS**
Business, Mgmt	**C**	**TW**	**PS**
Educational	**M**	**V**	**DM**
Health Care	**V**	**CS**	**DM**
Recreation	**CS**	**V**	**R**
Accommodations	**CS**	**V**	**M**
Other Services	**CS**	**V**	**TW**
Religious	**CS**	**V**	**PS**
Public Administration	**CS**	**R**	**TW**

TW= Team Work	**CS= Customer Service**	**V= Verbal**
PS= Problem Solving	**DM= Decision Making**	**M= Math**
R= Reading	**C= Computer**	**W=Written**

It appears that there is a gap between the important skills necessary for the success of the business and the ability of the employer to find these skills. When asked to assess the existing employees, employers indicated that the quality and stability was high, however the quantity and availability of the management staff was low. This may be a result of qualified youth leaving the area to find positions in other communities.

Table 5.19 Assessment of Management Skills

Industry	Number of Managers	Quality of Management	Quantity of Management	Availability of Management	Stability of Management
Agriculture	1.5	3.3	3.0	2.7	4.7
Utilities	800	4.0	4.0	2.0	4.0
Construction	1.8	4.1	3.7	3.4	4.4
Manufacturing	3.1	4.0	2.4	2.4	4.2
Retail Trade	3.0	4.2	4.0	4.0	4.2
Transportation	1.0	5.0	3.0	3.0	4.0
Finance	0.8	3.5	3.5	4.0	4.5
Scientific, Technical	1.0	4.0	4.0	4.0	4.0
Business, Mgmt	1.0	3.0	4.0	4.0	4.0
Educational	2.0	3.5	4.0	3.5	4.5
Health Care	3.7	4.5	3.4	3.8	4.4
Recreation	2.9	4.2	4.0	3.7	4.2
Accommodations	2.8	4.4	4.2	4.2	4.1
Other Services	1.8	4.2	4.2	4.2	4.2
Religious	2.8	4.1	4.1	4.8	4.8
Public Administration	4.0	3.0	1.0	1.0	4.0
All Industries	2.7	3.9	3.5	3.4	4.3

Table 5.20 Difficulty in Obtaining Skills

Industry	First	Second	Third
Agriculture	**M**	**PS**	**DM**
Utilities	**TW**	**M**	**PS**
Construction	**PS**	**M**	**DM**
Manufacturing	**PS**	**DM**	**TW**
Retail Trade	**CS**	**M**	**DM**
Transportation	**C**	**CS**	**V**
Finance	**C**	**TW**	**CS**
Scientific, Technical	**V**	**CS**	**C**
Business, Mgmt	**DM**	**PS**	**CS**
Educational	**C**	**CS**	**M**
Health Care	**CS**	**PS**	**DM**
Recreation	**DM**	**C**	**CS**
Accommodations	**CS**	**V**	**M**
Other Services	**DM**	**CS**	**V**
Religious	**TW**	**C**	**DM**
Public Administration	**CS**	**R**	**TW**

In addition, employers were asked to provide their assessment of the ability to find each of the skills. Table 5.20 indicates that the same skill (customer service) that was ranked as most important were also the skills employers found most difficult to obtain. The three *most difficult skills to obtain* were:

- Decision making (265 employers)
- Customer service (226 employers)
- Team Work (138 employers)

The three *easiest skills to obtain* were:

- Writing (0 employers)
- Reading (0 employers)
- Verbal (75 employers)

This would seem to indicate the most difficult skills to obtain are soft skills, those not typically taught in schools. This would appear to indicate that the schools are providing adequate training to future employees, and the skills required are best learned at the workplace, perhaps a work term or through an Apprenticeship program.

Most employers indicated that they did not participate in a work term although they would if approached. The most common reason for not participating was the timing of the work term; the largest number of employers interviewed was in the food and accommodation industry, which has its busy time in the summer when students are not in school.

5.9.2 Employer Issues Raised in Interviews

For the most part, issues indicated from the surveys were supported by the employer interviews. Soft skills such as customer service/interpersonal skills, teamwork and problem solving were reported as important skills to the employers, and they indicated they have had difficulty in finding those skills in the past. Most employers indicated that their employees were their largest assets and that finding quality employees is essential in staying successful. Most employers were aware of the mentoring/co-op placement programs offered by the high schools, however many would not participate because of the timing of the program or they did not feel they could offer much in the way of training. There seems to be a gap between the soft skills required by the employers and the training possibilities to acquire those skills through on the job training.

Additionally, the larger employers indicated they had difficulty finding young employees with management skills and further, attracting qualified employees to move to Grey and Bruce Counties because of the perceived lack of services employees become accustomed to in urban areas. They can attract employees that are familiar with the area and they try to attract new employees by promoting the quality of life in the two counties.

The two largest employers indicated they would be facing a skill shortage in the next five years due to the average age of their labour force and the resulting high retirement rate. The average age of the workforce is 52 and the retirement rate for the next five years will be about 40%. While this causes the employers a problem finding skilled labour, it also provides the local labour force with an unprecedented opportunity to acquire stable well paying employment. Both of these companies are actively visiting high schools and colleges to encourage students to pursue a career in the skill trades they will have available.

6.0 An Integrated Perspective on the Labour Force from the Employer, Employee and High School Surveys

The quantity and availability of management skills is a problem for employers

Regional employers report that the management pool, especially in the middle levels, is lacking in terms of quantity and availability (Table 5.19). Many local employers see this problem as an impetus in growing a strong workforce.

Effective management requires a number of skills including interpersonal communication, social/interpersonal and leadership. Perhaps the most important traits however are strong organizational and teamwork abilities.

Signals from the high school survey support this finding. Lower enrollment rates for business courses relative to other electives (Table 3.17) as well as dwindling co-operative participation rates (Table 3.29 and 3.30) suggest that the future labour pool is not preparing itself to capitalize on this opportunity in the local market.

The employee survey demonstrated a division in terms of the skill fundamentals demanded by management positions. Communication basics, such as reading social/interpersonal and verbal skills were reported to be high in the area. Yet, organizational, teamwork and written communication, all indispensable management skills were ranked poorly (Table 4.43 and 4.50).

Evidence from the high school and employee surveys would seem to substantiate the concerns of local employers.

A lack of soft skills in the workforce

Another concern expressed by local employers was the lack of soft skills in the workplace (Table 5.20). The core skills learned in the school system adequately prepare local employees. Soft skills embody those intangible skills that are not solely learned through the school system. It is these skills that employers view as important but lacking in the local labour supply (Table 5.18).

Self-perception of this finding is not supported by the high school survey and only partially by the employee surveys. Youth consistently reported skills classified as soft skills (social/interpersonal, teamwork and creative thinking) as their strongest skill attributes (Table 3.33). Experiences gained through summer work, volunteering and cooperative placements are vesting young people with a confidence in their ability to contribute in the workplace (Table 3.24 and 3.32).

The employee population at large had a similar, but somewhat reduced, confidence in its soft skill base. Experiences by employees translated into a strong perception of their social/interpersonal skills but with improvement needed in other typical soft skill domains of teamwork and creative thinking skills (Table 4.35, 4.36, 4.37).

The gap between employer perception and the present and future work force can be closed through better communication. Dialogue on the parts of employers as to what elements of the soft skill repertoire need to be improved upon by employees will go a long way to alleviating workplace pressures.

Underperformance of skills relating to numeracy and computers

Employers raised a number of concerns in the area of basic numeracy and computer skills. Findings from the employer survey as well as the focus groups confirm the assertion that across industries, and particularly in business retail and construction, numeracy and computer skills are deficient (section 5.8 and Table 5.15).

Both high school and employee surveys corroborated this perception. While some youth report an adequate level of math skills, it is closely linked to their academic level (Table 3.33). Mindful of this finding, university level mathematics preparation is not always the most practical for the workplace and efforts to encourage applied math skills for practical use should be made. Employees also reported the lowest of their self-assessment skills in mathematics (Table 4.37).

Few youth are taking elective computer courses, and despite the familiarity with everyday computer technology, their computer skills could be improved by taking more courses (Table 3.18) . Computer skills lend themselves well to learning through both high school and adult education courses. Employees in the region also felt the need to improve their computer skills and would welcome opportunities for computer upgrading. Computer skills were ranked the second lowest out of the skill areas by Bruce Grey employees (Table 4.40, 4.41, 4.42).

Bringing the local labour pool to a level whereby it can fill the positions needed by area employers will require attention to this skill shortage. It is critical to provide a strong education and training foundation for area residents in numeracy and computer skills.

Gender Skill Divisions

A key finding in all three surveys was the issue of gender. In other areas, but notably with respect to skills, gender was found to be deterministic. It divided where male and female respondents assessed their skills to be strong or weak as well as at what level they saw their particular skills.

The high school survey found that male students rank themselves slightly higher in mathematical, analytical, and computer skills and considerably higher in mechanical skills. In other categories female students rank themselves higher in social/interpersonal, teamwork and organizational and creative/artistic abilities (Table 3.33).

In the high school setting these differences in skills have implications for education plans. It is natural for students to pursue a career area that they are successful in and the expression of skills strengths and weaknesses captured by the survey show students following career paths that are commensurate with their skills (Table 3.35 and 3.36).

Employees in the region demonstrated similar trends with some exceptions. Male respondents continued to rank themselves strongly in mathematics, computer and mechanical skills (Table 4.36, 4.34, 4.39). Female respondents also were consistent with high school findings as they expressed strengths in artistic/creative, organizational and teamwork. (Table 4.35, 4.37, 4.38)

What is noteworthy is that the issue of gender did not arise in the employer survey. Specific questions targeting gender were not asked in any of the three surveys. In the high school and employee surveys, the issue of gender arose from the data. Whereas, in the employer survey gender was not flagged as an issue by employers indicating it was either not a priority or not on their radar. The differences revealed in the other two surveys shows that gender should be used as a criterion for understanding skills development in Bruce-Grey. Further research into how employers perceive and account for the issue of gender and its influence on skills in the workplace is needed.

7.0 Conclusions

The completion of this project leaves a rich body of information that serves to better inform those interested in the labour market in Bruce and Grey. Successful regional economies are reliant on a solid information base, so as to be equipped with knowledge that allows them to be agile in responding to a dynamic world. This is especially true for predominantly rural regions where information relating to skills is vital as, "the lower skills in the rural work force imply a lower level of rural incomes, and a lower potential for rural job growth" (Alessandro, Magnusson, 2004). Capacity for influencing local conditions is boosted by the provision of current and local labour market information contained in this report.

The three primary research components of the project, coupled with regional information from secondary sources, provide a multiplicity of perspectives on the Bruce-Grey labour market. By engaging local employees, employers and high school students, a multidimensional picture of prevailing labour market conditions emerged. Regional strengths and weaknesses were uncovered with respect to skills, education and training levels in all four of the major project components.

Labour Market Profile

The **labour market profile** generated from Census Canada data was helpful in articulating a broad picture of the labour market setting for Bruce-Grey. The profile was compiled using data from the 1996 and 2001 Statistics Canada Population Census and Census of Agriculture. Overall, the population of Bruce and Grey Counties in 2001 was 63,305 and 89,073 respectively. Important trends that were extracted from the data are:

- Higher proportion of males and females in the 45 years and over age group and a much lower proportion of males and females in the 20-25 and 25-44 year old primary working age group compared to the province.
- A reduced number of young families due to out-migration of the younger members of the work force resulting in a lower representation of the 0-4 age group than the province with implications for future growth in the counties.
- A large retirement age population, given the attraction of retirement residence in the communities near the shores of Lake Huron and Georgian Bay.
- The average family income for Ontario ($73,849) as a whole was considerably higher than county averages in Bruce ($62,972) and Grey ($60,974) in 2001.
- Compared to the province relatively fewer people in Bruce and Grey have completed higher levels of formal education. The percentage of the Ontario population that received a degree from University is almost twice the percentage reported in Bruce and Grey.
- Based on 2001 Location Quotient calculations, the economy of Bruce County is specialized in several industrial sectors including Utilities, Agriculture, and Construction while the economy of Grey County is specialized in Agriculture and Construction.
- Distinct gender differences were identified in fields of study, work force employment sectors and labour market participation.

High School Survey

A considerable database was derived from surveys administered to area **high school students**. Input was produced with the help of local schools and students. In the thirteen district high schools 347 Grade 10 students, 288 Grade 11 students and 294 Grade 12 students participated in the high school survey.

The body of findings point to a number of key areas that warrant attention:

- At each grade Bruce-Grey students report adequate achievement in the core subjects of English, Math and Science.
- High participation rates in technological education courses.
- Much lower rates of enrolment are reported for Business Studies and Computer Studies classes signifying a possible lack of development of corresponding financial, clerical, administrative, and particularly computer skills.
- A high incidence of volunteer activity is reported but at low levels of hours per year.
- One of the clear strengths of Bruce-Grey youth as identified by this survey is their participation in part-time and summer employment, which provides invaluable workplace experience.
- A low number of students reported taking a co-operative education class.
- Survey results reveal consistent differences reported between gender across the three grade levels.
- Males are also less likely to pursue a university education preferring college instead, while females are more equally balanced between university and college with little interest in trade schools.
- A disconcerting trend is revealed by the survey findings of high intended youth out-migration from the region. There are several industry categories where significant differences are reported between those intending to stay or leave, suggesting the need for development in certain industry areas to promote greater youth retention

Employee Survey

The survey conducted with **employees in Bruce-Grey** was able to provide a representative sample of the area's workforce. With 900 surveys completed across the two counties a set of reasonable assertions can be made about the skill, education and training levels possessed by area residents.

Selected findings from the employee survey follow:

- Retirement is an influential factor in all of the sub-regions in the next five years with the notable exception of males in Bruce In-Land.
- Compared to provincial averages the number of respondent's who speak a language other than English is low
- In Bruce county 48% of respondents did not participate in any upgrading activities. The figure was markedly lower in Grey County where 66% of respondents engaged in no upgrading of education or training in the last year.

- A distinct difference between male and female underemployment perceptions was found with female respondents in all sub-regions perceiving higher underemployed rates more often than male respondents.
- The large majority of respondents felt either satisfied or very satisfied with their current occupation.
- The *top three skills* assessed by mean responses in both Bruce and Grey are:
    - Verbal
    - Reading
    - Social/interpersonal skills
- Skill areas *cited as weak* in Bruce and Grey were:
    - Computer
    - Math skills
    - Artistic/creative
- Skills that also *could be improved upon* as perceived by respondents were:
    - Written communication
    - Teamwork
    - Organizational skills
- Trends that materialize from the data are relatively *strong correlations* exist *between education and skill levels* for:
    - Reading
    - Written
    - Computer
    - Verbal
    - Mathematics
- Those skills that demonstrate *weaker relationships* between *education and skills levels* are:
    - Social/Interpersonal
    - Organizational
    - Teamwork
- *No relationship* exists between education and skill levels for:
    - Mechanical/Physical
    - Artistic/Creative
- *Male respondents* perceived their skills as more advanced in:
    - Teamwork
    - Mathematics
    - Mechanical/Physical
    - Computer Spreadsheets
- *Female respondents* were more apt to find their skills superior in the following categories:
    - Verbal
    - Artistic/Creative
    - Organizational
    - Computer Word Processing
- The ranking of the mean responses for skills in each of the sub-regions produced the following standing:
    - Bruce In-Land

- Bruce Peninsula
- Bruce Shoreline
- Grey In-Land
- Georgian Bay

Employer Survey

The **employer survey** was conducted to provide a sample of employer needs across a broad range of industry categories. There were a total of 404 employers interviewed, 36 of which were intentionally targeted for in-person interviews because of their strategic importance and 368 surveys administered to small to medium sized businesses in Bruce-Grey.

The interviews with employers in the area yielded a number of findings:

- The divergences between quality of workforce and available of workforce was most marked in the construction, manufacturing and finance industry categories.
- The majority, 83%, of employers indicated they did not have a great deal of difficulty finding employees, while 16% said they did.
- Some employers (18%) thought the school board was very good at providing a qualified workforce. The majority, 60% thought they were providing a good workforce and 10% thought they were providing an average workforce. Only 8% and 4% thought they were poor or very poor at proving a qualified workforce
- The employers surveyed generally indicated that they (59%) did not provide employee training past the initial training period.
- There were 23% of employers that thought their business would grow,
- The manufacturing and public administration industries stated they had plans for the expansion of their workforce in the next five years.
- The quality of the workforce was ranked as the most important critical success factor in the future for area employers.
- Several of the largest employers in the utilities and manufacturing sectors indicated that their retirement rates could be between 40-50% in the next five years. This could lead to upwards of 1,500 new, well paying skill trade positions, which will be available to local residents.
- The *top three most important skills* assessed by responses by employers in all industry sectors are:
    - Customer service (327 employers)
    - Verbal (322 employers)
    - Math (254 employers)
- Employers indicated that the quality and stability was high, however the quantity and availability of the management staff was low. Utilities, agriculture and public administration are examples of industries where this issue was especially problematic.
- The three *most difficult skills to obtain* were:
    - Decision making (265 employers)
    - Customer service (226 employers)
    - Team Work (138 employers)

- Most employers were aware of the mentoring/co-op placement programs offered by the high schools, however many would not participate because of the timing of the program or they did not feel they could offer much in the way of training.

The **focus on skills** in this project has revealed a number of areas of focus in Bruce-Grey. Attention to the areas of skills deficits would benefit from additional efforts by local community development agencies. By tackling specific skills scarcities identified above, the continued health of local conditions will be more promising. Furthermore, with a strengthening of under-skilled elements of the local labour pool, associated increases in employment prospects can be expected as a more skilled worked force attracts higher wage employment.

8.0 Recommendations

From the above conclusions a set of recommendations has been put together by the project team to move the findings of this report forward. These recommendations seek to bring the project findings to a position whereby they can be integrated into the various decision-making arenas.

In both the high school and employee surveys a consistent difference was found with respect to gender and skills. Male and female respondents had distinct areas of strengths and weaknesses.

1. It is recommended that gender be used as a criterion in any type of skills programming. Incorporating gender as a variable in skills training will allow organizations to capitalize on existing gender specific strengths and configure programs to address gender specific weaknesses

Employers in the area noted a dearth of local management talent. The gap between management supply and demand meant that often local employers had to import management from outside of Bruce-Grey. Compounding this problem is the substantial exodus of youth from the area upon graduation resulting in an absence of a set 'track' for employment positions in management.

2. It is recommended that local employers establish a management training program across various industries and occupations. Such programs will target area youth in an attempt to establish a pool of potential management talent. Securing talent early in the process, by offering the opportunity for a management position, will allow for the cultivation of local management capacity.

The rate of out-migration for area youth is high. This is demonstrated historically, in the labour market profile, as well as forthcoming, as forecasted by the high school survey.

3. It is recommended that local school boards and industry communicate more effectively the range of job opportunities in the area. The survey revealed that a large number of high school students are leaving because of a perceived lack of jobs available locally. However, it needs to be made clear to area youth that the employment rates for youth in the area are as high as in urban areas.

The utility sector is a vital part of the local economy. Owing to the vagaries of the industry, there has not recently been a substantial hiring round in this sector. The employer report revealed significant attrition rates coming from the main employers in the utilities industry in the coming years suggesting more employment opportunities in the sector.

4. It is recommended that community partners prepare the workforce for positions opening in the utility sector. The focus on identifying occupations that are in demand and preparing local employees accordingly (i.e. – skills and education upgrading, additional occupation specific training) will enable the local workforce to capitalize on these openings. By targeting the industry specifically, the gains will be locally retained.

There was a strong willingness expressed by local businesses to increase their participation in the development of 'home-grown' talent. There was also a desire expressed by local school boards to enlarge the scope of their co-operative programs, as participation in such programs was low.

5. It is recommended that local business organizations and the Bluewater District and Bruce Grey Catholic District School Board seek further dialogue to support partnerships that allow for labour market experience via co-operative placements for high school students. The present discontinuity between school year and business cycle will necessitate alternative forms of co-operative programming. The links between employers and students should also be strengthened by other ventures including classroom visits, career fairs, mentoring, job shadowing and industry tours.

The move, in many industries towards technological intensification as well as an increasingly computerized workplace, necessitates a basic level of computer aptitude for a large number of jobs. The surveys administered to both high school students and current labour force participants revealed a perceived underperformance with respect to computer skills. The employer survey too revealed low levels of computer competency to be found in the workplace.

6. It is recommended that increased efforts are made by: A) the training board, B) adult education groups, and C) all learning networks to raise computer skill levels for both high school students and current labour force participants. This can be achieved by augmenting existing programs in addition to increasing community awareness about existing computer training programs.

A large number of individuals from the employee survey indicated that they would like to take education upgrading or training courses. There are a number of skills found in all three of the surveys that would benefit from these activities.

7. It is recommended that all three levels of government be mobilized to invest in adult education. The rapid pace of change in the labour market means that continuous learning activities must become a keystone of local labour market interventions. Where such continuous learning should be concentrated is on the set of transferable skills outlined by this report.

The Researchers found, through both formal and informal channels, a strong sense of place with respect to the area that people work and live in. This attachment is an integral part of the community's constitution and speaks to the variety of qualities that may attract an individual or family to settle in Bruce-Grey.

8. It is recommended that economic development organizations in their recruiting efforts, accentuate the intangible qualities of living in the Bruce-Grey region. These 'intangibles' were found to be a influential part of an employee's future planning and thus, promotion of such 'quality of life' factors can be a powerful vehicle for attracting talent to the area.

The difficulty in securing efforts from area businesses can in large part be attributed to the large number of surveys that they are asked to participate in. A number of local businesses expressed 'survey exhaustion' during the process of the employer survey.

9. It is recommended that there is a harmonization of regional community economic development efforts among government agencies, community future corporations and other economic development agencies. Attempts should be made to reduce overlap in the collection of information so as to reduce the time requirements of local businesses. Moreover, coordination of research and programs encourages more efficient use of resources.

Closely related to the above point, education and training upgrading that current Bruce-Grey employees are engaged in is largely of an occupation specific nature. Education and training upgrading external to the workplace is uncommon.

10. It is recommended that interest groups from industry and the local training board explore the possibility of forming partnerships to target those occupations which most frequently are engaged in education and training upgrading activities. The most expedient means of delivery for education and training upgrading programs is through the workplace as this is where many of the existing programs are in place.

The breadth of this project engaged many stakeholders from the Bruce-Grey region. Through this diverse involvement, it was discovered that the community at large was not familiar with the mandate of the Training Board. The lack of knowledge was not limited to the Training Board itself but included other labour market resources that were available to current and potential employees in the area but not well publicized.

11. It is recommended that the training board engage in a promotional campaign to highlight the work and research that they take part in. Promotion of other labour market resources should also be a part of this effort by respective community partners.