



British Columbia's Green Economy:

Securing the Workforce of Tomorrow

Results from the

Green Employer Survey

2010



GLOBE
FOUNDATION



About the GLOBE Foundation

The GLOBE Foundation of Canada is a Vancouver-based, not-for-profit organization dedicated to finding practical, business-oriented solutions to the world's environmental problems.

Formed in 1993, we've helped companies and individuals realize the value of economically viable environmental business opportunities through our conferences and events, research and consulting, project management, communications and awards program.

We're a leader in championing green initiatives and leveraging sustainable ventures into mutually rewarding opportunities for enterprise and the environment. From urban sustainability to climate change, we're helping change the world by degrees.

For more information on the GLOBE Foundation, please visit our website at:

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Survey Highlights

- **Profile of Green Companies Surveyed** – The surveyed companies represent a wide-cross section of the key sectors of the green economy, with a heavier focus on the Clean and Alternative Energy sector (38 percent of respondents). All Development Regions in the province were represented within the survey responses. Approximately two-thirds (68 percent) of the companies have had operations in the province for more than 5 years and three-quarters (75 percent) of companies employ fewer than 25 full-time staff. In addition, one-third (33 percent) of the companies surveyed had current job vacancies – an indication that “green” jobs may be difficult to fill.
- **Opportunities & Challenges** – The employers surveyed showed optimism in terms of growth for their industries with respect to the green economy in BC with close to 70 percent identifying significant opportunities for their industry sectors. However, respondents advocated more stringent environmental regulations and increased incentives could help create demand for green products and services and indicated that a lack of government commitment to green policies and to the enforcement of regulations had stagnated growth in certain green industries.
- **Important & Difficult to Staff Occupations** – The employers surveyed consistently identified experienced professional engineers, skilled technicians and technologists, environmental consultants and analysts, and financiers/business development officers as the most important and hardest to staff occupations for their organizations, both at the present time and projecting into the future over the next decade.
- **Concerns about Future Hiring** – The employers surveyed indicated concern over difficulty in hiring for these occupations in the future, and advocated for improvements to training and education in order to address skill shortages and suggested possible means to facilitate hiring – including additional government policies and programs such as tax subsidies for green industries and grants to help attract green employees.
- **Education & Training** – Respondents stressed the need for more relevant programs to be developed. Increased efforts to promote collaboration and partnerships between educational institutions and the private sector were repeatedly mentioned. Providing students with more practical work experience alongside their studies (e.g. co-operative education and internships) is considered very important for organizations, while the most common theme to arise was a shift in curriculum to include a focus on renewable energy in order to equip future employees for BC’s changing energy landscape.
- **Combining Business Knowledge with Technical Skills** – Feedback on current training programs revealed a need for a combination of skills to be emphasized, such as combining business skills with technical training. Several respondents indicated the need to integrate management and business skills with traditional trades training to help improve opportunities within their industry sectors.

Survey Background

The GLOBE Foundation undertook considerable primary research as part of a year-long study on British Columbia's green economy and labour force – including designing and implementing an in-depth survey that targeted green companies operating in BC.

The private sector is made up of a diverse number of firms with different labour market needs. With this in mind, the GLOBE Foundation developed an employer survey to reach out to BC companies active in the province's green economy to help identify some of the opportunities, as well as the challenges they are experiencing at present in securing qualified workers, or are expecting to face over the next decade.

Companies operating within five key “green” sectors were targeted for the survey. The sectors were defined as:

- Clean & Alternative Energy;
- Energy Management & Efficiency;
- Green Building;
- Environmental Protection; and
- Carbon Finance & Investment.

Between July 2009 and March 2010, the GLOBE Foundation identified a total of 650 companies from these five sectors as key suppliers of “green” products and services within the province.

With the assistance of Prophis Research, the GLOBE Foundation prepared an in-depth survey questionnaire. The link to the online questionnaire was emailed to the identified “green” companies and was accessible online from February 10, 2010 to March 30, 2010. Follow-up telephone calls during the second and third week of March helped boost the number of respondents for a total of 104 completed questionnaires, or a response rate of 16 percent.

The business owner, the human resource staff member, or the company employee in charge of hiring was targeted for the survey and only one employee per organization was permitted to complete the questionnaire.

This report summarizes the views of the participating individuals within the surveyed organizations and helps uncover present trends, as well as current and future labour market issues, associated with BC's green economy. Survey responses provide insights into the following areas:

- Perceived opportunities and threats to specific industries with respect to the green economy;
- Occupations currently important to participating organizations and their industry sectors;
- Occupations in which there are currently staffing difficulties and associated obstacles;
- Occupations expected to be important to participating organizations and their industry sectors in the next 5 to 10 years;
- Occupations in which there are expected to be staffing difficulties in the next 5 to 10 years;
- Levels of satisfaction with post-secondary education and training programs in the province; and
- Recommended actions from respondents on how to address staffing difficulties and improve education and training.

A copy of the survey questionnaire is also included at the end of this summary report.

While the GLOBE Foundation realizes that the sample size for this survey is too small to be statistically valid, it does provide valuable insights into current policy and labour market-related issues for companies actively involved in greening BC's economy.

Survey Results

Profile of Organizations Participating in Survey

Organizations by Sector

Figure 1 illustrates the breakdown of the responding organizations (by green sector). Responses were received from all of the surveyed green sectors, with companies from the Clean and Alternative Energy sector responsible for the highest number of completed questionnaires at 38 percent.

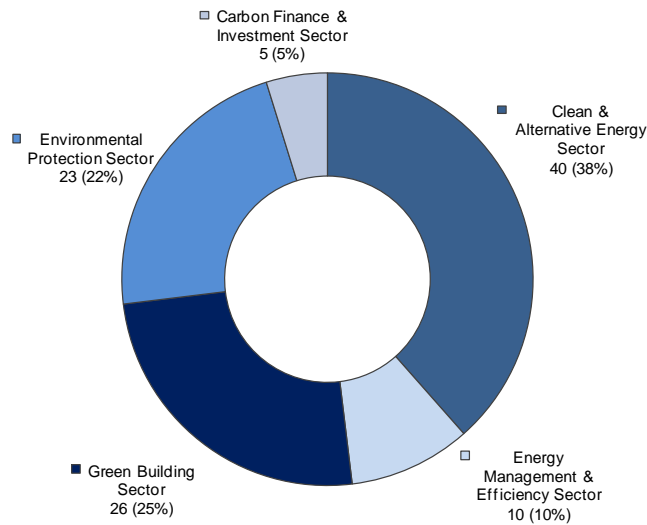


Figure 1: Profile of survey participants by sector (n= 104)

Organizations by Region

Figure 2 profiles the regions in the province where the surveyed companies have operations and/or staff throughout the course of a year. Respondents were given a map and asked to identify all Development Regions in which their companies have operations. Because many organizations have operations in more than one region throughout the province, the percentage total does not equal 100 percent. More than three-quarters (79 percent) of the responding companies have operations in the Mainland/Southwest region.

Region	Number of Respondents	Percentage of Total
Vancouver Island/Coast	25	24%
Mainland/Southwest	82	79%
Thompson/Okanagan	24	23%
Kootenays	11	11%
Cariboo	14	13%
North Coast/Nechako	14	13%
Northeast	8	8%

Figure 2: Profile of survey participants by region of operations (n=104)

Number of Employees

The profile of organizations by their number of “full-time” and “part-time” employees is summarized in Figure 3 below. The highest proportion of survey participants (49 percent) identified themselves as small organizations with five or fewer full-time employees. Only one percent of respondents identified their organization as having over 500 full-time employees.

The profile of companies with part-time employees shows a similar pattern, indicating that the vast majority of respondents (84 percent) employ five or fewer employees on a part-time basis. Only two percent of the surveyed companies hired more than 100 part-time employees.

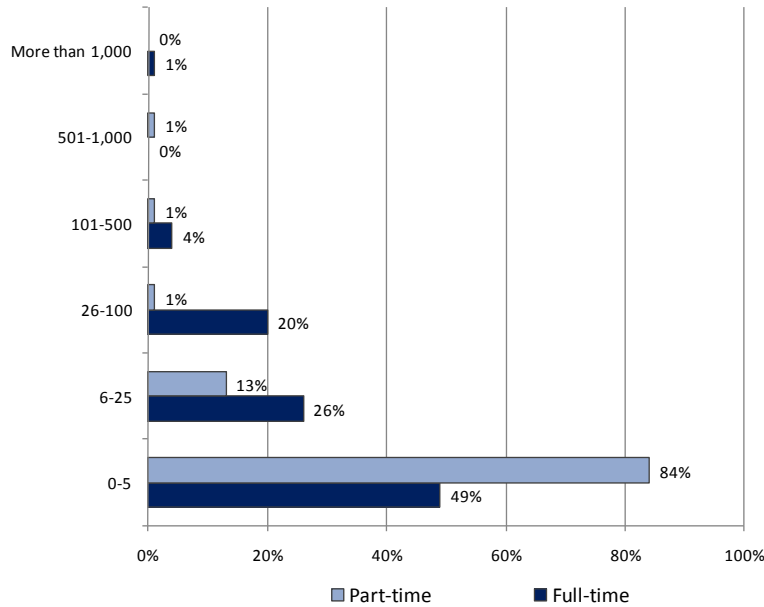


Figure 3: How many “full-time” and “part-time” employees are currently employed by your organization? (n=102)

Age of BC Companies

More than two-thirds (68 percent) of the companies surveyed have been in operation in BC for more than five years (see Figure 4). Only 12 percent of companies had been in operation for two years or less.

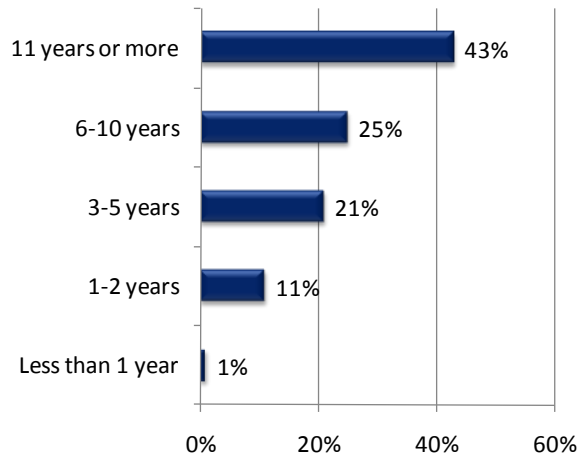


Figure 4: How long has your organization been operating in BC? (n=102)

Current Job Vacancies

As illustrated in Figure 5, one-third (33 percent) of respondents indicated that they had job vacancies within their organizations, despite the BC economy having only recently recovered from an economic recession. This finding might suggest that the companies surveyed are experiencing difficulties in finding the skilled green workers that they need.

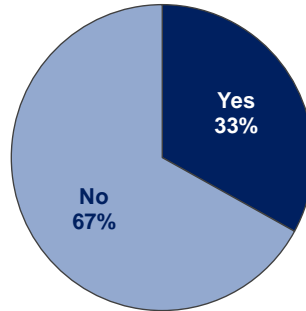


Figure 5: Does your organization currently have job vacancies? (n=103)

Opportunities and Threats to a Greener Economy

Opportunities in the Green Economy

Survey participants were asked to rank the extent to which they feel there are likely to be opportunities in their industry over the next decade with respect to the green economy. Figure 6 summarizes the responses to this question, showing that nearly 70 percent of respondents feel the opportunities are significant. Only one respondent indicated that they felt the green economic opportunities were negligible for their industry.

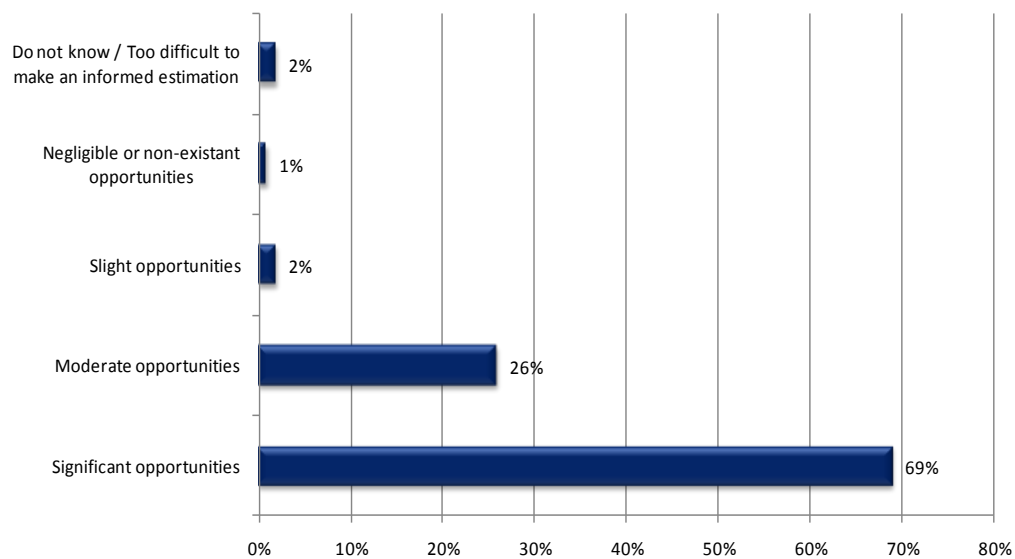


Figure 6: To what extent do you think that there are likely to be opportunities in your industry sector over the next decade with respect to the “green economy”? (n=103)

When given the option to elaborate on the specific opportunities in the green economy for their respective industries, 89 respondents chose to give a verbatim response. The most common theme identified as a potential opportunity was the growth of the clean energy sector and the growing need for new energy-related services, equal to 46 percent of the open-ended responses. Over one-third (39 percent) of respondents indicated that increasing consumer demand for green products and services is an opportunity, particularly in the construction industry as demand for green buildings rises. Nineteen percent indicated that government regulations could provide green economic opportunity, in that they could shape demand for environmental services and products.

Threats in the Green Economy

As illustrated in Figure 7, three-quarters (74 percent) of the respondents identified at least slight threats to their industry sectors with respect to the green economy. The greatest proportion of respondents (31 percent) indicated that they felt there are “moderate” threats to their industry.

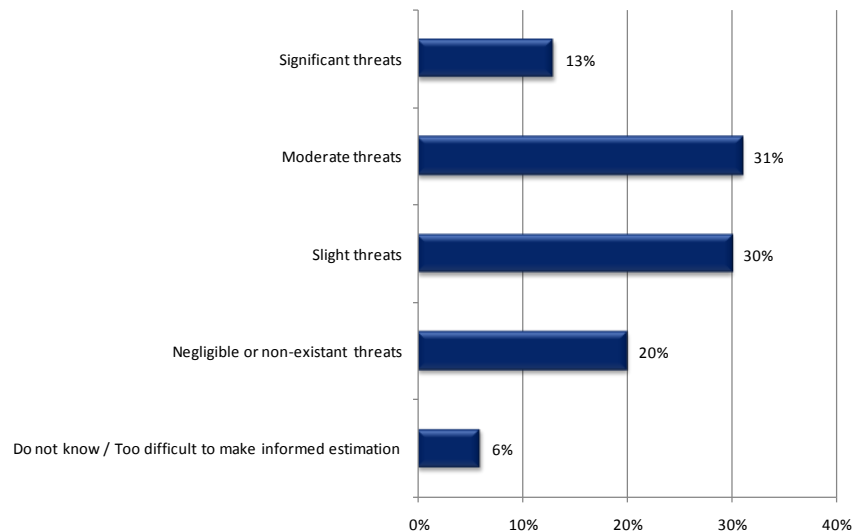


Figure 7: To what extent do you think that there are likely to be threats in your industry sector over the next decade with respect to the “green economy”? (n= 103)

Sixty-seven respondents chose to elaborate on the significant threats that they feel exist for their industries with respect to the green economy. The top two industry threats identified by the respondents were the lack of government funding and support, as well as the high costs of “going green”, particularly in the green building sector (both at 36 percent of open-ended responses).

One-quarter of respondents (25 percent) indicated that the lack of understanding and awareness on the part of the government and the general public is a threat to their industries. Other popular responses included the low cost for natural resources and electricity, the low price on carbon, as well as competing technologies and regulatory hurdles.

The following survey response echoes other statements coming from the private sector during research for this project:

“Government support in the form of capital grants, loan guarantees, speedy approvals etc is absolutely required for the clean technology industry to jump that initial capital hurdle.”

Trends and Policies Affecting Green Companies

Important Trends

Survey participants were asked to identify the most important trends that they see affecting their organization and/or industry over the next decade. Most surveyed organizations foresee policies and regulations playing a major role, with (69 percent) indicating that changing Canadian government policies and regulations are the most important factors that will likely affect their organization or industry, while 42 percent of the respondents identified changing policies and regulations outside of Canada as the most important trend (see Figure 8).

Changing technology (45 percent), changing public demand (41 percent), and difficulties in accessing capital (37 percent) were also identified as important trends. Increasing competition both domestically and internationally proved to be important trends to many organizations.

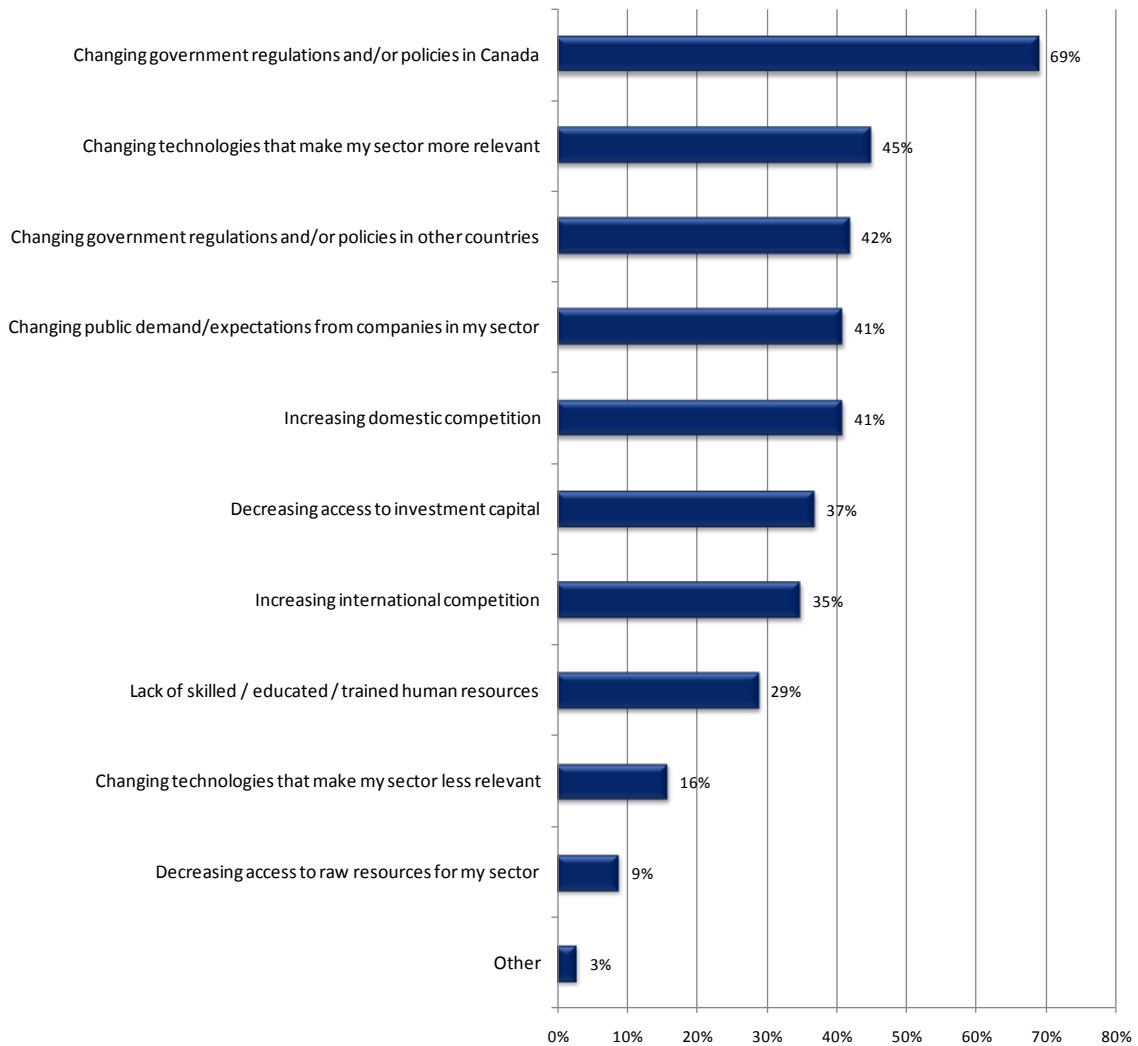


Figure 8: What are the most important trends likely to affect your organization and/or industry sector over the next decade? (n=103)

Government Policies

Survey respondents were asked to qualify specific government programs, policies, and regulations that are hindering growth in their industry sector. Sixty-five respondents provided open-ended answers, which are summarized in Figure 9 below. The largest percentage of organizations (42 percent) felt that a lack of supportive regulations and enforcement will hinder growth for their industry, while many other organizations identified government inefficiencies and the continued support for fossil fuel-based energy as key barriers to their industry growth.

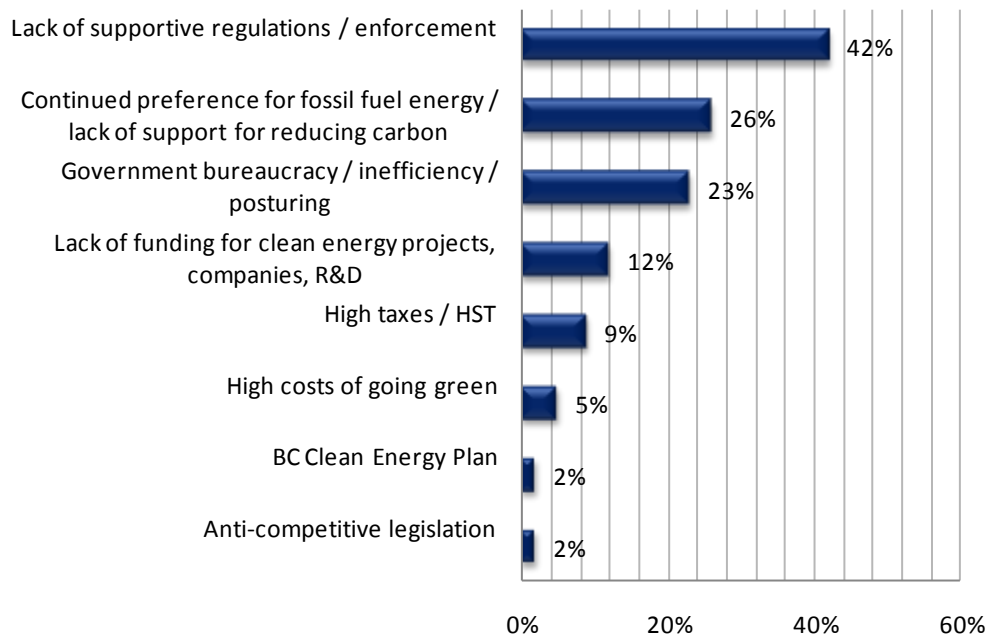


Figure 9: What specific governmental policy, regulation, or program do you see as most likely to hinder growth for your industry sector? (n=78)

Higher taxes, including the HST, was a particular concern for the Green Building sector as previously, many energy-efficiency products for the home were PST-exempt and these incentives that help boost the green building industry are now lost.

Demand for Green Workers

Important Occupations at Present

Figure 10 displays the top 10 occupations out of a list of 28 that survey respondents identified as important to their organizations at the present time. Over half (59 percent) of the respondents surveyed indicated that professional engineers are important for their organizations. Skilled technicians/technologists and environmental consultants are also important, with 41 percent and 38 percent of all companies identifying these occupations.

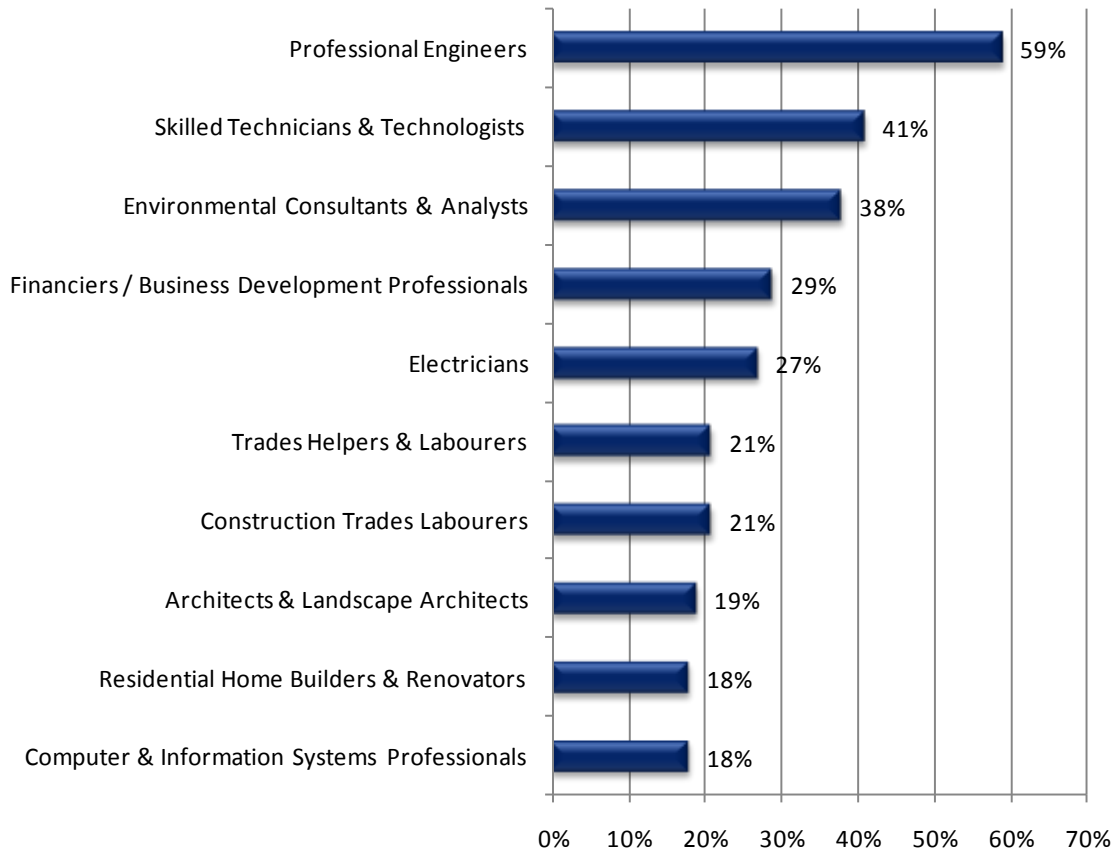


Figure 10: Which of the following occupations are important to your organization at the present time? (n=98)

Occupations that are Difficult to Staff at Present

Figure 11 displays the top 11 occupations out of a list of 28 that survey respondents identified as difficult to staff at the present time. Only approximately half of the respondents (n=47) identified occupations that were difficult to staff for their organizations. Skilled Technicians and Technologists (28 percent) and Professional Engineers (23 percent) came out on top, being both “important” and “difficult to staff”. Business Development Professionals and Environmental Consultants were also considered difficult positions to staff.

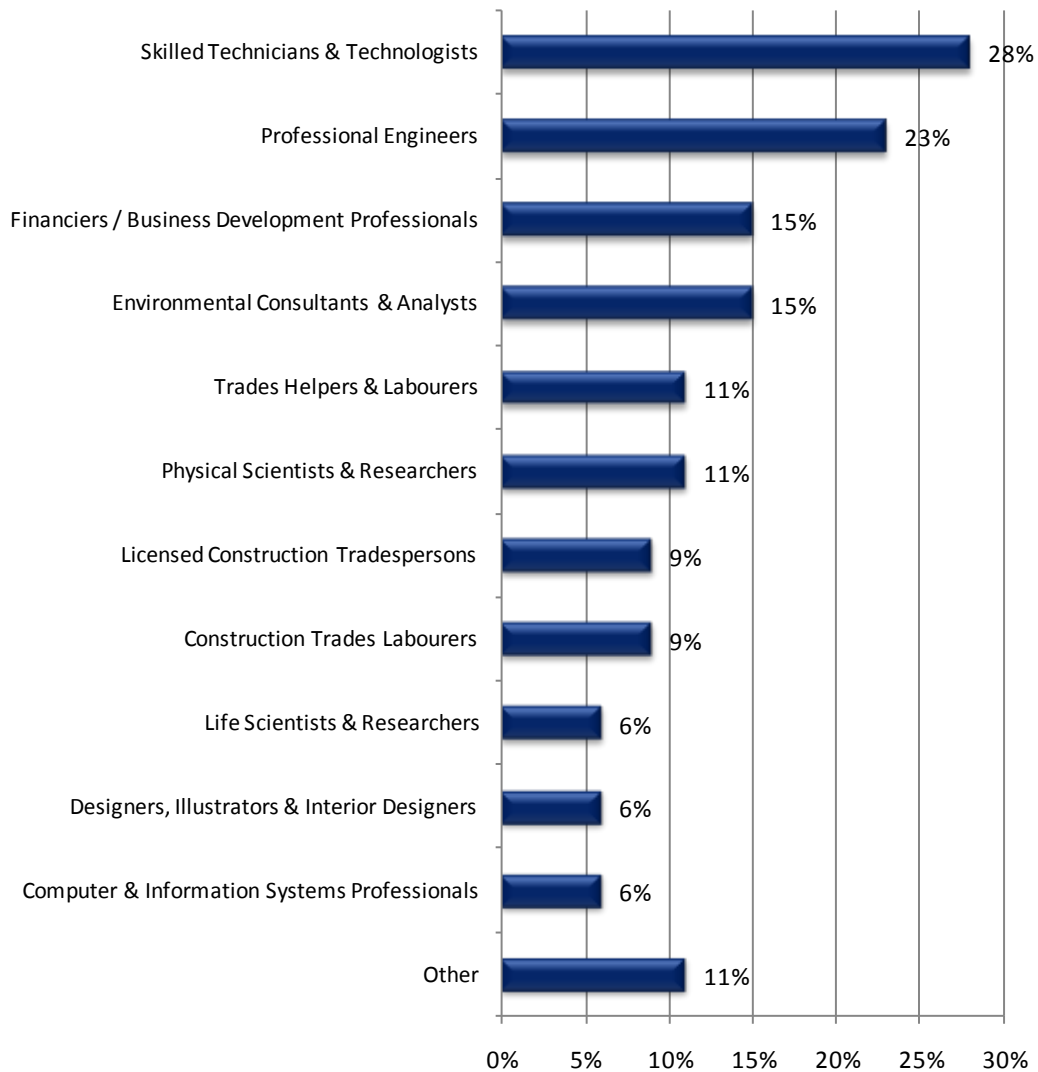


Figure 11: Which of the following occupations are difficult to staff for your organization at the present time? (n= 47)

Occupations that were not identified as difficult to staff at present, despite having some importance to the organizations surveyed include: Telecommunications Installers and Repairers, Material Handlers, Landscaping and Grounds Maintenance Labourers, Inspectors and Regulatory/Environmental Health Officers, Graphic Designers and Illustrators, Electricians, Building Caretakers and Superintendents, and Architects and Landscape Architects.

A total of 27 survey respondents identified “other” occupations through open-ended responses as both important and difficult to staff at the present time. Nearly half of these respondents (46 percent) indicated that other careers within the fields of engineering and science are difficult to staff at present, such as Plasma Physicists as an example. Sales careers were also identified as being important and difficult to staff, with 38 percent identifying occupations in this field. Several respondents indicated they are attempting to staff traditional careers, such as sales professionals, coupled with emerging environmental skills and knowledge that can help advance their organization in the green economy. Skilled trades were also identified by employers as important and difficult to staff, including solar hot water and HVAC-R installers.

Reasons for Hiring Challenges at Present

Employers were asked to select the reasons why they believe their company’s most important jobs are also difficult to staff at present. As illustrated in Figure 12 below, a wide variety of reasons were identified by survey participants. Respondents could select as many reasons as they saw applicable to their organization.

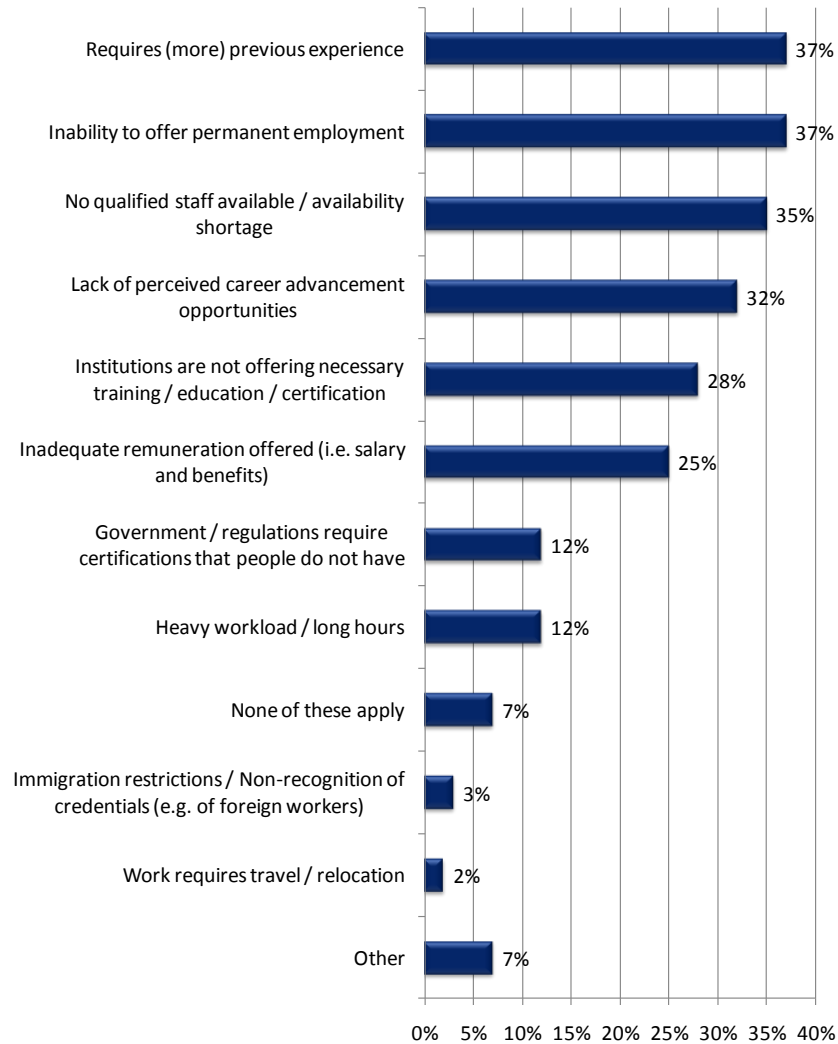


Figure 12: Why are important occupations difficult to staff for your organization at present? (n=60)

More than one-third (37 percent) of respondents indicated that a lack of experienced workers was one of their biggest challenges. The same percentage of respondents also indicated that their organization’s inability to offer permanent employment was an issue in finding employees.

In addition, a shortage of qualified staff (35 percent) and the perception that the jobs offered a lack of career advancement opportunities (32 percent) were identified as reasons for staffing difficulties. More than one-quarter (28 percent) of the surveyed employers indicated that educational and training institutes are not providing the necessary skills to fill their company’s needs while 25 percent identified inadequate remuneration as a key challenge.

As illustrated in Figure 13, of the 34 employers who chose to expand on the main obstacles that they feel restrict their ability to hire for the careers identified above, the vast majority (62 percent) indicated that the main obstacle to finding qualified staff was a lack of specific technical skill sets in the labour force. This included a lack of familiarity with energy modeling software and certain fields of design, as examples, along with skill shortages related to the application of newer technologies associated with the green economy.

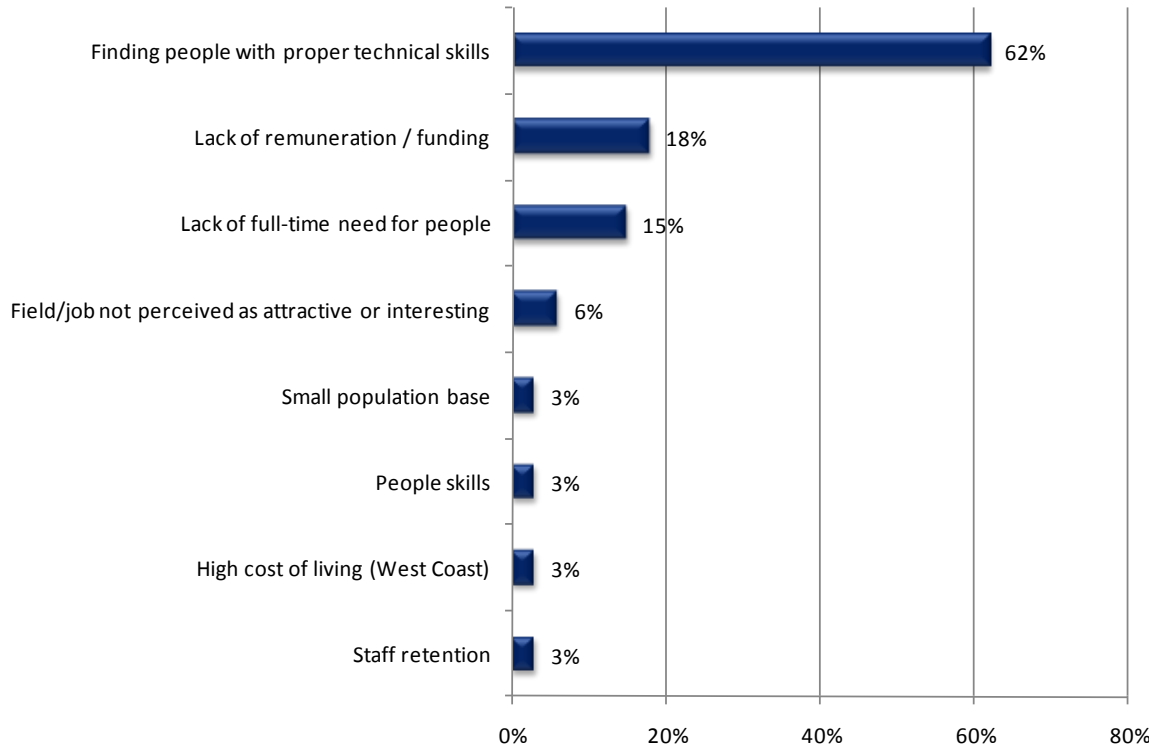


Figure 13: What are the main obstacles you see with respect to being able to staff you most important jobs? (n=34)

In addition, nearly one-fifth of employers (18 percent) indicated that a lack of funding holds them back from hiring while 15 percent indicated that their organization only requires certain careers on occasion, in particular, environmental consultants and analysts.

Again, respondents emphasized the importance of the right combination of skills, with comments suggesting organizations have difficulty finding skilled technicians with adequate people skills, while others emphasized the lack of technically skilled people who also have business and financial knowledge creates challenges.

Important and Difficult to Staff Occupations in the Future

Figure 14 displays the top 10 occupations out of a list of 28 that survey respondents predicted would be most important and difficult to staff in five to ten years time. Employer responses varied considerably, although the greatest proportion of respondents selected listed skilled technicians and technologists and professional engineers as the two top occupations at 15 percent and 13 percent, respectively.

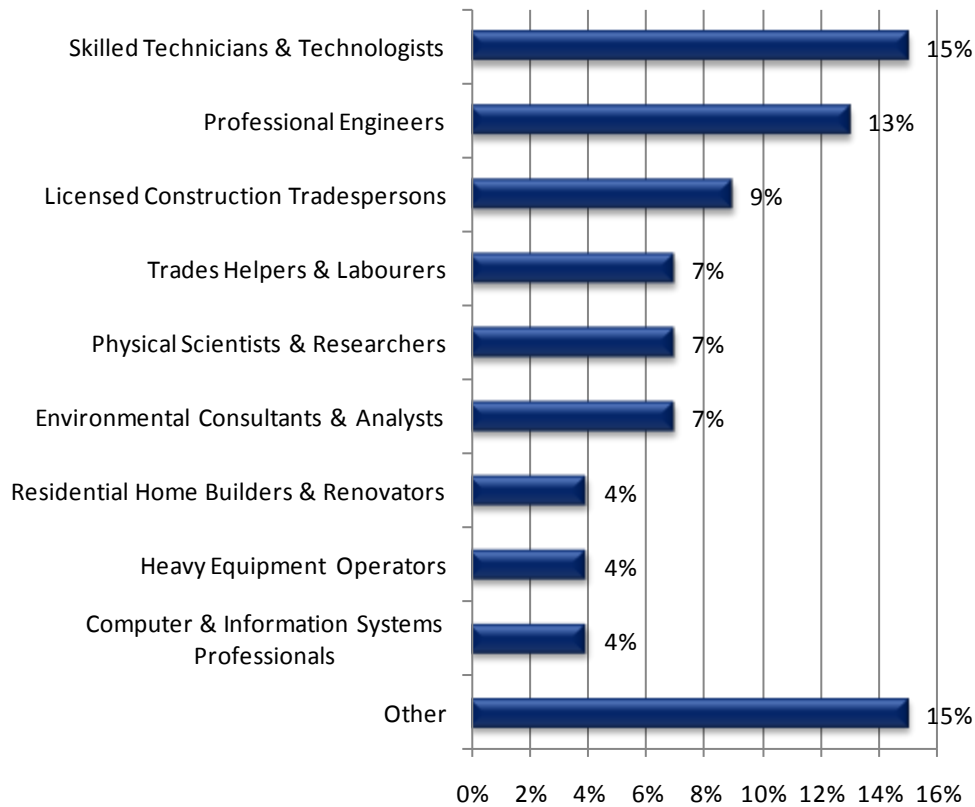


Figure 14: Which occupation do you foresee as being the most important and difficult to staff over the next 5 to 10 years for your organization? (n=55)

Construction trades people, helpers, and labourers, as well as physical scientists/researchers, and environmental consultants/analysts were also foreseen as being important and difficult to staff in the future.

Similar themes were identified for future employment challenges as described at present, as respondents again emphasized that key occupations in the future will require a combination of skills such as engineers and scientists with managerial skills. Nearly one-third (31 percent) of respondents identified careers in the fields of engineering and science, while one-fifth (19 percent) indicated sales professionals with green technology expertise will be difficult to staff in the future. The strong concern on finding suitable managerial and experienced staff might be an indication that the lack of qualified workers may be due in part to attrition factors.

Predicted Reasons for Future Hiring Challenges

Figure 15 summarizes the reasons why the employers surveyed believe that the occupations described above will be difficult to staff five to ten years in the future. As a matter of interest, more of the employers surveyed identified a shortage of qualified, skilled workers as an issue in the future than at present time (47 percent versus 35 percent).

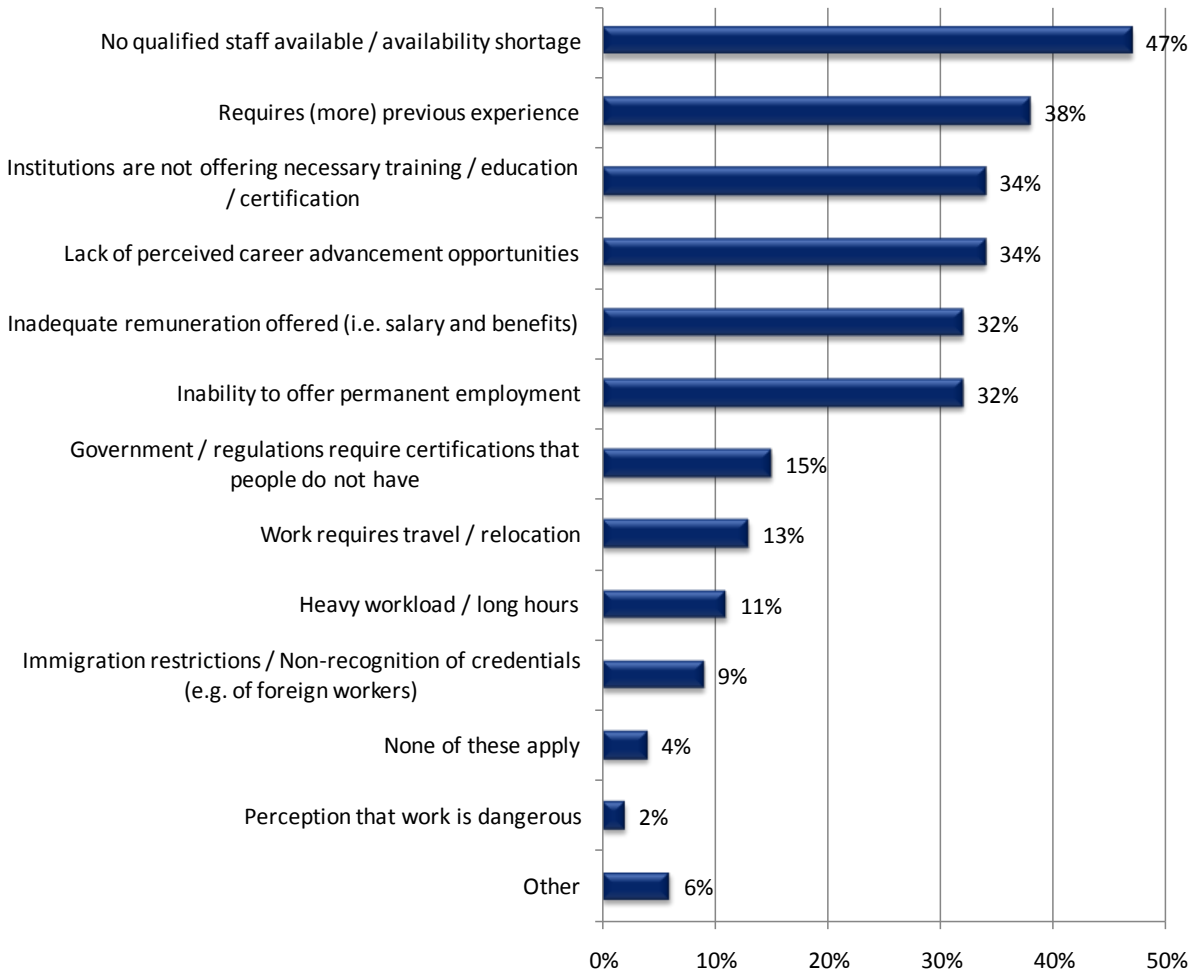


Figure 15: Why do you foresee the important careers you identified be difficult to staff for your organization in 5 to 10 years time? (n=53)

Impact on Businesses from a Shortage of Skilled Labour

When asked about the impact that skill shortages have on their businesses, 60 percent of the employers surveyed identified missed business opportunities as the largest affect (see Figure 16). In addition, more than half of the respondents (57 percent) identified that staff and/or the business owner(s) are required to work more hours.

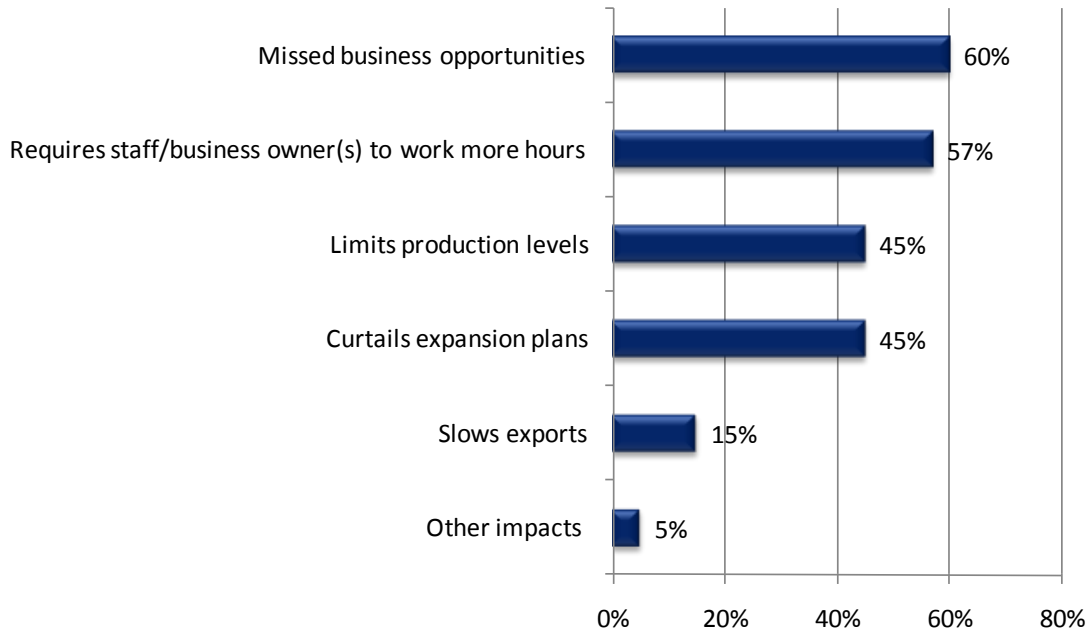


Figure 6.16: What impacts do skill shortages have on your company? (n=95)

Possible Solutions to Staffing Challenges

Respondents were asked to select all possible solutions that applied to their organization that could help with the recruiting of qualified employees and address the challenges they face in staffing important occupations for their companies. As illustrated in Figure 17, a majority of respondents (61 percent) indicated that tax credits for employee training would be beneficial to their organization in addressing these challenges. More than half (55 percent) of employers indicated that increased partnerships between business and educational institutions would be beneficial, while 43 percent also indicated that developing more relevant university and college programming/training would benefit their organizations' challenges in recruiting.

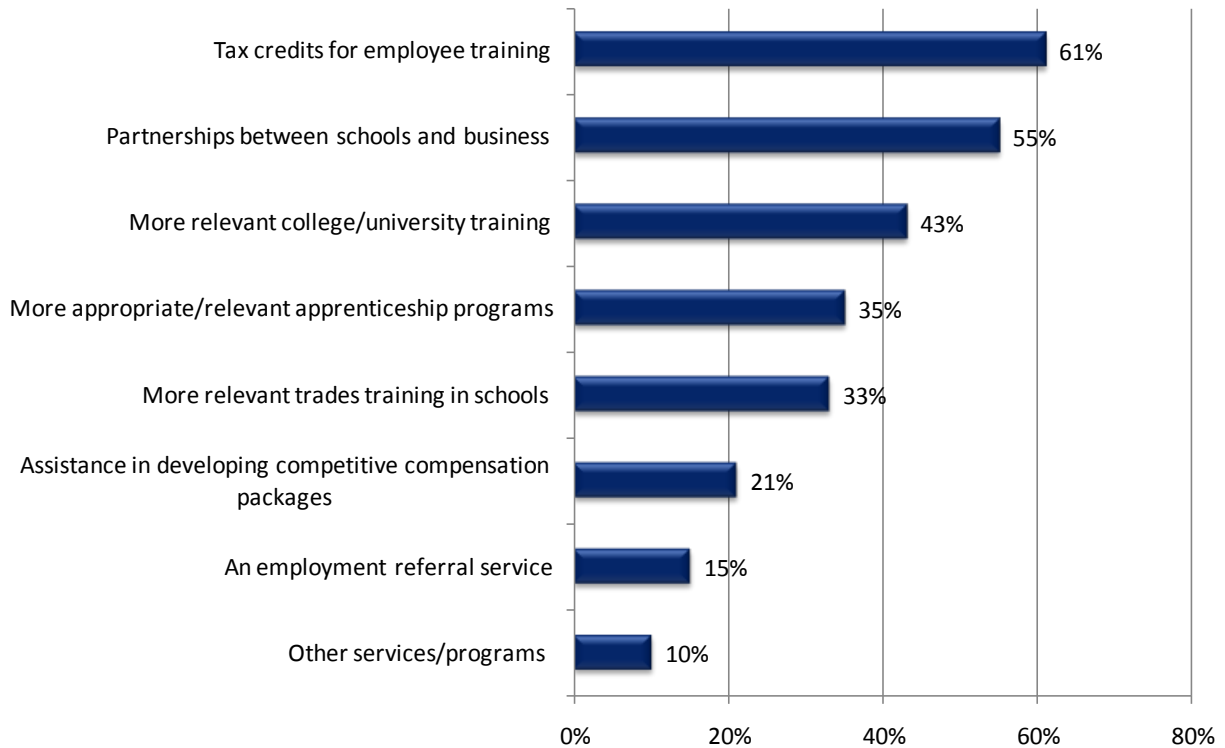


Figure 17: What could help your organization address the challenges of recruiting employees? (n=94)

Twenty-seven respondents chose to elaborate on possible solutions. Common themes in the open-ended responses included improved training programs (44 percent) and better outreach and public awareness for green careers in general (26 percent). One-third of respondents (33 percent) suggested some type of policy action could be helpful, with suggested solutions including tax credits and grants to attract students into the clean technology sector.

Sample responses include:

- “Offer more courses in smaller centres and bulletins of upcoming courses and seminars”; and
- “Create some apprenticeship training opportunities in sustainable building and renovating practices, using the NRCan R2000 Builder Training as a core structure, but expanding it significantly and adding apprenticeship opportunities for young people”; and
- “More public awareness for solar energy and better financing schemes which could be tied to housing and mortgages”.

Education and Training for Green Jobs

Satisfaction with Education Programs

Respondents were asked to rank their level of satisfaction with BC's educational programming as it pertains to their companies' most important occupations. Respondents ranked their satisfaction levels from "very satisfied" to "very dissatisfied", as illustrated in Figure 18. Almost half (46 percent) were either satisfied or very satisfied with current education in the province and while many employers had previously indicated that they felt a lack of necessary education and training may be contributing to their current and future staffing challenges, only 14 percent were either dissatisfied or very dissatisfied with the province's educational programming.

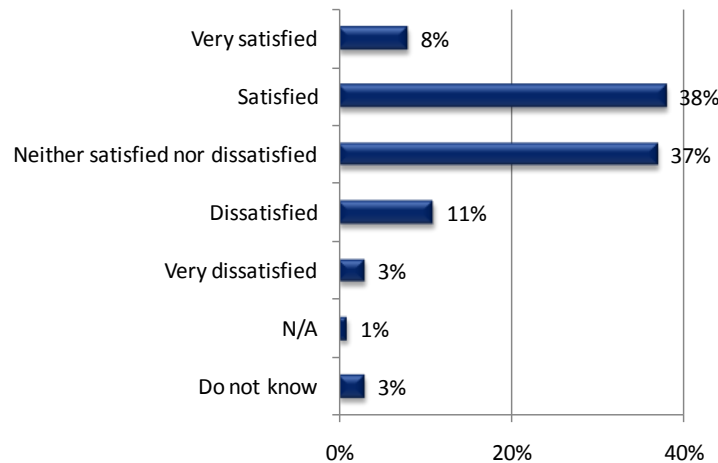


Figure 18: How satisfied are you with how well educational institutions in BC are currently providing the necessary educational programming to meet the employment needs of your company? (n=103)

Improvements to Education

When asked what educational institutions could do to better address the needs of their companies in terms of programming, 40 respondents provided verbatim answers. More than one-third (38 percent) of respondents' comments emphasized a need for more practical work experience to be incorporated as part of education programs, indicating that current programs are often found to be too theory-based. Comments included:

- “[Developing a better] understanding of what the needs will be in the sector by placing students out into the field, not trying to bring the field into the educational setting by positioning to compete with the private sector in innovation and commercialization;” and
- “Update studies to include real work applications versus old theoretical models.”

Thirty-five percent indicated educational institutes could improve in the area of biofuels and renewable energy products and installation. One-fifth (20 percent) of the employers surveyed also indicated that business and finance skills need to be incorporated alongside technical training, with comments that included:

- “[Need more] understanding of the financial requirements needed to bring research projects to a commercial reality”; and
- “Business education and project management is missing with many technical people. They don't understand what drives the market for their services and products.”

Satisfaction with Training Institutions

Similar to the question on satisfaction with educational programs thirty-nine percent of respondents were either satisfied or very satisfied with training programs in BC (see Figure 19). However, nearly one-quarter (24 percent) were either dissatisfied or very dissatisfied with training.

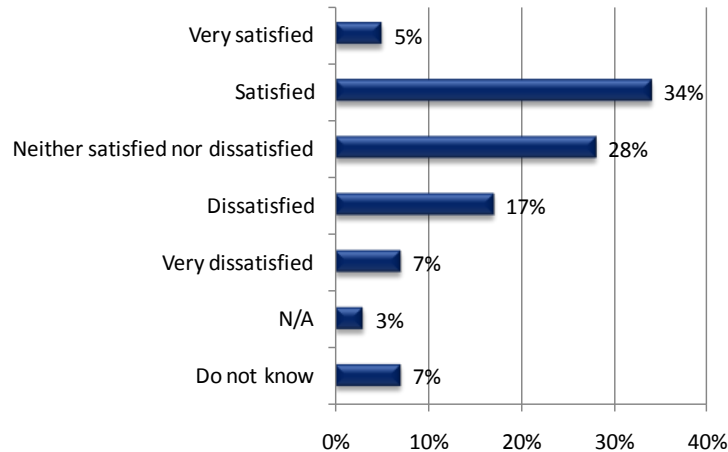


Figure 19: Thinking about the most important occupations in your company, how satisfied are you with the training programs that are currently available to your company? (n=103)

Improvements to Training

When asked what training institutions could do better to address the needs of their companies in terms of programming, only 17 respondents provided verbatim answers. The highest percentage (41 percent) of respondents expressed that training programs need to become more relevant to the needs of their business and/or industry. Nearly one-third (29 percent) of respondents suggested that training programs need to reflect a greater shift toward renewable energy technologies and applications. Several respondents indicated that training programs incorporating general management skills (18 percent) and business skills (12 percent) would be useful to their organization. Comments included:

- “Renewable energy products and installation practices training is often not available locally;”
- “General management and project management skills [are needed] as it’s relatively easy to fill the technical gaps;”
- “There are no construction management courses so that a person can move forward from being a tradesperson to learning how to run a company. There needs to be something beyond trade school for those who wish to move forward;”
- “Provide more certification programs to help raise the professional standards specific to this field;”
- “Cross-training between disciplines and between firms [would help].”

Featured Quotes on Green Jobs

Below is a selection of a few of the open-ended responses that were received in relation to current and emerging green job opportunities in British Columbia.

“Engineering, sales, and marketing experts within the green space will be highly sought after.”

“There will be big opportunities in the manufacturing of wind turbine components in BC— technical position related to turbine installation, farm maintenance, and research and development of wind turbine related technologies.”

“Those individuals who have the ability to access private capital and guide that towards cleantech companies in BC will do very well.”

“Experienced, culturally-sensitive First Nations relations personnel are essential for our business.”

“Those skilled in a variety of areas, ranging from human and public relations to energy assessment and/or renewable energy technology installations are needed.”

“We are always looking to find skilled technicians with strong people skills to help us develop our business and client contacts.”

“There is a demand for more experts in Building Information Modelling (BIM) and energy modeling software.”

“There is a dire shortage of accredited HVAC-R installation professionals in North America.”

Survey Questionnaire

INTRODUCTION

The GLOBE Foundation has been commissioned to conduct research about your industry, with a particular emphasis on labour market conditions as the province moves toward a lower-carbon economy. With support from the Province of British Columbia's Labour Market Partnership Program, GLOBE has engaged Prophis Research of Vancouver to conduct a survey on their behalf.

Your cooperation is requested to assist GLOBE in identifying key labour market trends affecting your company and/or industry and key areas of concern as we move forward toward an economy that gives greater emphasis on greenhouse gas emissions reductions and lower-carbon business and lifestyle practices.

In exchange for 10 minutes of your time in completing this survey, you will receive a complimentary pass to the GLOBE 2010 Trade Fair and Exhibition (\$45 value) taking place in Vancouver, British Columbia from March 24-26, 2010. In addition, we will enter your company into a draw for a free delegate pass to the GLOBE 2010 Conference (\$1,500 value), happening in Vancouver during these same dates.

All responses you provide to the questions in this survey will be held in complete confidence with the research firms.

Q1. Are you the most appropriate contact within your organization to respond to this survey that deals with human resources and staffing issues?

- 1 Yes
- 2 No

If no, please forward this questionnaire on to the person in your organization who is best able to respond to issues relating to human resources and staffing. Thank you!

GREEN ECONOMY

The green economy is an economic development model that focuses on the promotion of sustainable economic growth, the prevention of environmental pollution, global warming, resource depletion, and ecological degradation. Integral to the green economy are those elements of traditional economic sectors that are in transition to lower carbon energy production and increased energy conservation.

Q2. To what extent do you see your organization as operating within the "green economy"?

- 1 Does not operate at all within the green economy
- 2
- 3
- 4
- 5 Operates fully within the green economy
- 6 Do not know

Q3. To what extent do you think that there are likely to be *opportunities* in your industry sector over the next decade with respect to the "green economy"?

- 1 Significant opportunities
- 2 Moderate opportunities
- 3 Slight opportunities
- 4 Negligible or non-existent opportunities
- 5 Do not know / Too difficult to make informed estimation

Q4. Please elaborate on what you think the opportunities are that the green economy will present within your industry over the next decade.

Q5. To what extent do you think that there are likely to be *threats* in your industry sector over the next decade with respect to the "green economy"?

- 1 Significant threats
- 2 Moderate threats
- 3 Slight threats
- 4 Negligible or non-existent threats
- 5 Do not know / Too difficult to make informed estimation

Q6. Please elaborate on what you think the *threats* are that the green economy will present within your industry over the next decade.

INDUSTRY TRENDS

Q7. Please identify the most important trends that you foresee likely affecting your company and/or industry sector over the next decade. Please check all that apply to your organization.

- 01 Increasing international competition
- 02 Increasing domestic competition
- 03 Changing technologies that make my sector less relevant
- 04 Changing technologies that make my sector more relevant
- 05 Changing public demand/expectations from companies in my sector
- 06 Decreasing access to raw resources for my sector
- 07 Lack of skilled / educated / trained human resources
- 08 Decreasing access to investment capital
- 09 Changing government regulations and/or policies in Canada
- 10 Changing government regulations and/or policies in other countries
- 11 Other
- 12 None of these apply

Q8. *If other, please specify:*

Q9. What specific governmental policy, regulation, or program (if any) do you see as most likely to promote growth for your industry sector?

Q10. What specific governmental policy, regulation, or program (if any) do you see as most likely to hinder growth for your industry sector?

Please indicate which of the following occupations are *important* to your organization at present and which are *difficult to staff* for your organization by clicking on all that apply. In the last column, please indicate the *one* occupation that is *most important as well as difficult to staff* for your organization at present.

	Q11. Important for your organization	Q12. Difficult to staff for your organization	Q13. Which ONE of the following is most important and difficult to staff at present for your organization
Architects & Landscape Architects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Assemblers & Inspectors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Building Caretakers & Superintendants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Computer & Information Systems Professionals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction Inspectors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction Trades Labourers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Designers, Illustrators & Interior Designers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Electricians	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmental Consultants & Analysts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Financiers / Business Development Professionals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Graphic Designers & Illustrators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Heavy Equipment Operators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inspectors & Regulatory/Environmental Health Officers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Landscaping & Grounds Maintenance Labourers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Licensed Construction Tradespersons	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Life Scientists & Researchers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Material Handlers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mechanics & Installers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Metal Workers & Boilermakers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Physical Scientists & Researchers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Professional Engineers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Residential Home Builders & Renovators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Skilled Technicians & Technologists	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Telecommunications Installer & Repairer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trades Helpers & Labourers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Urban & Land Use Planners & Surveyors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Utilities Operators & Supervisors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, please list below.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q14. Please list any other jobs *not listed above* that are both important and difficult to staff at present.

Q15. Please select from the list below the reasons why you foresee [ANSWER TO Q13.] as difficult to staff at present. Please check all that apply.

- 01 Lack of perceived career advancement opportunities
- 02 Inability to offer permanent employment
- 03 Heavy workload / long hours
- 04 Perception that work is dangerous
- 05 Inadequate remuneration offered (i.e. salary and benefits)
- 06 Work requires travel / relocation
- 07 Institutions are not offering necessary training / education / certification
- 08 Government / regulations require certifications that people do not have
- 09 Immigration restrictions / Non-recognition of credentials (e.g. of foreign workers)
- 10 Requires (more) previous experience
- 11 No qualified staff available / availability shortage
- 12 Other
- 13 None of these apply

Q16. *If other, please specify:*

Q17. Please elaborate (if you wish) on the main obstacle(s) you see with respect to being able to staff [ANSWER TO Q13.].

Q18. What solution(s) (if any) do you think would be most effective in helping you deal with the difficulties you experience in staffing [ANSWER TO Q13.]?

Thinking about the foreseeable future (next 5-10 years) with a particular focus on changes that may result as your industry transforms toward greener business practices, what new kinds of occupations are likely to be required in your company?

Please indicate which of the following occupations are likely to be *important* to your organization and which could be *difficult to staff* for your organization by clicking on all that apply. In the last column, please indicate the *one* occupation that is likely to be *most important as well as difficult to staff* for your organization.

	Q19. Important for your organization in foreseeable future (next 5-10 years)	Q20. Difficult to staff for your organization in foreseeable future (next 5-10 years)	Q21. Which ONE of the following is most important and difficult to staff in foreseeable future (next 5-10 years) for your organization
Architects & Landscape Architects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Assemblers & Inspectors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Building Caretakers & Superintendants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Computer & Information Systems Professionals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction Inspectors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction Trades Labourers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Designers, Illustrators & Interior Designers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Electricians	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmental Consultants & Analysts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Financiers / Business Development Professionals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Graphic Designers & Illustrators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Heavy Equipment Operators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inspectors & Regulatory/Environmental Health Officers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Landscaping & Grounds Maintenance Labourers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Licensed Construction Tradespersons	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Life Scientists & Researchers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Material Handlers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mechanics & Installers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Metal Workers & Boilermakers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Physical Scientists & Researchers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Professional Engineers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Residential Home Builders & Renovators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Skilled Technicians & Technologists	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Telecommunications Installer & Repairer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trades Helpers & Labourers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Urban & Land Use Planners & Surveyors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Utilities Operators & Supervisors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, please list below.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q22. Please list any other jobs *not listed above* that are both likely to be important and difficult to staff in the foreseeable future.

Q23. Please select from the list below the reasons why you foresee [ANSWER TO Q21.] as difficult to staff over the next 5-10 years. Please check all that apply.

- 01 Lack of perceived career advancement opportunities
- 02 Inability to offer permanent employment
- 03 Heavy workload / long hours
- 04 Perception that work is dangerous
- 05 Inadequate remuneration offered (i.e. salary and benefits)
- 06 Work requires travel / relocation
- 07 Institutions are not offering necessary training / education / certification
- 08 Government / regulations require certifications that people do not have
- 09 Immigration restrictions / Non-recognition of credentials (e.g. of foreign workers)
- 10 Requires (more) previous experience
- 11 No qualified staff available / availability shortage
- 12 Other
- 13 None of these apply

Q24. *If other, please specify:*

FORMAL EDUCATION GAPS

The next questions have to do with the formal education that is required by workers/staff to do the various job(s) prior to starting work with your company and/or industry sector.

Q25. How satisfied are you with how well educational institutions are currently providing the necessary education to meet the employment needs of your company?

- 1 1 Not at all satisfied
- 2 2
- 3 3
- 4 4
- 5 5 Extremely satisfied
- 6 Do not know
- 7 N/A

Q26. What could educational institutions do better to address the needs of your company?

TRAINING GAPS

Training generally refers to courses or programs that enhance professional skills development, upgrading, additional accreditation, or credential acquisition for existing workers/employees. It may be offered through a variety of institutions, including both formal educational intuitions as well as training organizations, associations, private firms, and non-profit entities.

Q27. Thinking about the most important occupations for your company, how satisfied are you with the training programs that are currently available to your company?

- 1 Not at all satisfied
- 2
- 3
- 4
- 5 Extremely satisfied
- 6 Do not know
- 7 N/A

Q28. If relevant, what kinds of improvements could be made to training programs that are important now and in the near future to help your company and/or industry sector succeed?

Q29. Does your organization currently have job vacancies?

- 1 Yes
- 2 No

Q30. What impacts do skill shortages have on your company? *(Please check on all that apply).*

- 1 Missed business opportunities
- 2 Curtails expansion plans
- 3 Limits production levels
- 4 Slows exports
- 5 Requires staff/business owner(s) to work more hours
- 6 Other impacts (please list below)

Q31. *If other impacts, please specify:*

Q32. What would help your company address the challenges of recruiting employees? *Please check on all that apply.*

- 1 An employment referral service
- 2 Assistance in developing competitive compensation packages
- 3 Tax credits for employee training
- 4 More relevant college/university training
- 5 More appropriate/relevant apprenticeship programs
- 6 More relevant trades training in schools
- 7 Partnerships between schools and business
- 8 Other services/programs (please list below)

Q33. *If other, please specify:*

COMPANY PROFILE

Please tell us a little more about your company and its operations by answering the following questions. Please remember that all responses will be kept strictly confidential.

Q34. Which industry sector(s) below do you consider your company a part of? Please check all that apply.

- 1 Renewable Energy
- 2 Bioenergy
- 3 Hydrogen/Fuel Cells
- 4 Green Building/Construction
- 5 Green Transportation
- 6 Energy Efficiency/Conservation
- 7 Advanced Batteries/Energy Storage
- 8 Pollution Control/Remediation
- 9 Waste Management/Recycling
- 10 Water Conservation/Technologies
- 11 Environmental Consulting/Engineering
- 12 Carbon Management
- 13 Finance/Venture Capital
- 14 Other

Q35. *If other, please specify:*

Q36. For how long has your organization been operating in British Columbia?

- 1 Less than 1 year
- 2 1-2 years
- 3 3-5 years
- 4 6-10 years
- 5 11 years or more
- 6 Do not know

Q37. In which part(s) of the British Columbia does your company have operations and/or staff during the course of a year? Please check all that apply.

- 1 1 Vancouver Island
- 2 2 Mainland/Southwest
- 3 3 Thompson-Okanagan
- 4 4 Kootenays
- 5 5 Cariboo
- 6 6 North Coast
- 7 7 Nechako
- 8 8 Northeast
- 9 *No operations in BC*

Q38. How many "full-time" employees are currently employed in your organization in British Columbia?

- 1 0-5
- 2 6-25
- 3 26-100
- 4 101-500
- 5 501-1,000
- 6 More than 1,000
- 7 Do not know

Q39. How many "part-time" employees are currently employed in your organization in British Columbia?

- 1 0-5
- 2 6-25
- 3 26-100
- 4 101-500
- 5 501-1,000
- 6 More than 1,000
- 7 Do not know

Q40. Please indicate which range captures your organization's 2008 revenues.

- 1 Less than \$500,000
- 2 \$500,001 to \$1,000,000
- 3 \$1,000,001 to \$5,000,000
- 4 \$5,000,000 to \$25,000,000
- 5 More than \$25,000,000
- 6 Do not know / Prefer not to say

FUTURE RESEARCH

Q41. Your assistance in completing this survey questionnaire has been greatly appreciated. Would you be interested in participating in a future survey, workshop, or focus group related to identifying the opportunities and challenges for companies such as yours as British Columbia transitions to a "greener" economy?

- 1 Yes Please
- 2 No Thanks

Please provide the following information:

Full Name: _____

Company: _____

Job Title: _____

Daytime Phone Number: _____

Preferred Email Address: _____

Please be aware that this information will not be used for commercial purposes by the GLOBE Foundation and is being collected solely for data analysis and will be kept strictly confidential.

Thank you for completing this survey!

All your survey responses will be kept confidential with the GLOBE Foundation and Prophis Research, the firms administering the survey.

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