

# **New Zealand Sports Turf Industry Survey & Future Skills Analysis Project**

Conducted  
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**New Zealand Sports Turf  
Industry Training Organisation**

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## **SUMMARY OF KEY RESULTS**

### **1. Economic Characteristics of the NZ Sports Turf Industry**

- Recognizing the relationship between the economy and employment, the first project objective assessed the economic environment of the sports turf industry (STI). As a small island nation with a relatively slow-growing population, trade and tourism can importantly impact the industry's economic health and long-term sustainability.
- The NZ sports turf industry relies on domestic clientele almost entirely for its livelihood. For the industry as a whole, 96 percent of business transactions were with domestic clients and only 4 percent international. Councils were the largest exception with one-quarter of its visitors being international. Golf clubs were a distant second with 8 percent.
- Expectations for business growth over the next five years was muted with 80 percent of respondents indicating "moderate" or "static" growth. Only 7 percent projected "strong growth". The most prominent obstacle to growth cited was an "aging population" followed by "competition from other sporting and non-sporting activities".
- As public institutions, schools and councils face different issues than privately owned organizations. Separate questions were asked regarding supply and demand for sports field resources. Seventy one percent of schools and 56 percent of councils claimed field capacity was adequate. However, nearly 30 percent of schools and over 40 percent of councils claimed capacity was either "inadequate" or "greatly inadequate". With regard to field quality, most schools and councils considered their fields to be in "good" or "average" condition, while 20 percent of schools indicated they were in "poor" condition. Regarding future demand, the majority (71 percent) of councils were concerned about declining field capacity relative to anticipated use.
- The STI spent an estimated NZ\$356 million in operating expenses in 2006. The majority (41%) went towards wages and salaries, 18 percent for contractor fees, 13 percent for capital expenses, 12 percent on supplies and 9 percent on repairs and maintenance. The large use of contractors has important training implications as it may supplant in-house employees for many maintenance activities. Councils, for example, spent only 11 percent of their budget on wages & salaries, but 52 percent on contractor fees. Golf courses and schools spent the least on contracting in 2006. In terms of types of contracting services used, the majority (26%) went for physical treatments, followed by renovation (14%), machinery maintenance (14%), mowing (12%), chemical application (12%) and fertilizing (10%). "All" maintenance activities were used by 8 percent of respondents, while only 4 percent did not use any contracting services.

## **2. Labour Skills Assessment**

- A second important objective was to document the current employment environment within the STI. The purpose was to identify critical labour shortages and to project potential opportunities for educational programs.
- Nearly 24,000 people were employed in some capacity by the New Zealand sports turf industry in 2006. Of these, roughly one-third (34%) were full time, one-fourth part-time (24%) or volunteer (23%) and nearly one-fifth (19%) were contracted. For an industry, the considerable employment diversity and such a large proportion of volunteer workers is unusual. Most industries in developed economies rely primarily on full time employees while supplemented by part-timers. Volunteers working in competitive organizations would be very minimal or none at all.
- Demographically, nearly all (93%) employees in the STI are male and most (86%) are white, with a small minority of Maori (8%) and Pacific Islanders. Nearly two thirds of all workers are aged 46 or above, with 28 percent over 61 years of age. Only 11 percent were in the younger 22–30 range. This concentration of older workers suggests that younger people are being drawn elsewhere for a variety of reasons.
- Compensation rates were a keen concern of listening session participants, which was further verified with survey results. For hourly workers, over half (55%) earned between \$10 and \$15 an hour and another 20 percent received less than \$10 an hour. One-fifth of all workers made between \$16 and \$20 per hour and only 4 percent earned over \$20 an hour. For salaried employees, over one-third (35%) made under \$20,000 and two-thirds made under \$40,000. Roughly one-fourth earned in the \$40,000 to \$60,000 range, 10 percent made over \$60,000 and 1 percent earned in excess of \$80,000.
- Educational qualifications of sports turf employees were of interest for two reasons: 1) the number and diversity of qualification categories is considerable and 2) a surprising share (53%) of employees lacks appropriate formal training. An obvious question is why? As a starting point, respondents were asked if the work force was adequate to meet current labour needs. Three quarters (74.2%) of respondents indicated it was sufficient and one quarter (25.8%) claimed it was not. From an efficiency standpoint, one fourth of organizations facing hiring difficulties is undesirable. Organizations facing the greatest shortages were race tracks (42%) and councils (41%), followed closely by golf courses (35%) and croquet clubs (33%).
- To address where key shortages were most prominent, respondents were asked to rank critical skill areas identified in listening sessions. The “most important” need was “unqualified staff with no certification” (42 percent). Following a close second with 41 percent were “qualified technical staff with Level 4 or higher certification”. The third ranked skill area (24%) was “qualified managers with business and technical training”. The fact that both qualified and unqualified staffs are critically needed suggests a general dearth of employees industry-wide.
- Finally, respondents were asked to identify why labour shortages exist. By far the most significant reason (66%) was “low wages and salaries” relative to other industries. The second most important reason (39%) was a “lack of advertising and promotion by the industry”, which was followed closely (38%) by “a perception that sports turf lacks career advancement”. All three reasons contributed to the widely held perception that the STI lacks professional recognition and is therefore not a viable career track.

- The above responses regarding “why there are shortages” suggest that the problem is multi-faceted. 1) Some unqualified people are hired because much of the work does not require specialized training. 2) Adequate numbers of qualified people are simply not available. 3) Many unqualified people are hired primarily because they are less costly to the organization, even though a more qualified person might be preferred.

### **3. Industry Training Needs**

- Training programs developed by training providers are pointless without adequate industry support. Financial investment by an organization is one such useful measure. Over half (54%) of all firms interviewed invested less than \$500 in training annually. An additional 12 percent invested between \$500 and \$1,000. In other words, over two-thirds of respondents invested under \$1,000 annually in formal training for their employees.
- In addition to current training needs, respondents were asked about needs five years in the future. Over one-fourth (26%) of respondents chose unqualified (general purpose) staff as the most critical. Just over one-fifth (22%) of respondents indicated qualified staff with level 3 education were “greatly needed”, followed by technical staff with level 4 or higher education (20%). Close to this rank (19%) was qualified managers with business and technical training. Some variation does exist across sectors. For instance, councils and race clubs both emphasized business and technical training as the core need for their sectors.
- Training quality was also examined. Industries that believe programs are not relevant or are poorly taught may refrain from investing in training. In terms of program relevancy and training quality — golf courses, bowling clubs and councils ranked them consistently “very good or good”. Conversely, racing clubs and schools ranked them average or poor.
- A similar assessment was used for communication between training providers and industry clients — golf, bowls and councils were generally pleased with communication while race tracks and schools were not. Finally, the same trend surfaced with regard to industry financial commitment to training — race tracks and schools indicated they do an average or poor job at training their personnel.
- Concern was elicited more than once during listening sessions regarding the sustainability of the NZSTI and NZSTITO organizations from a human resources standpoint. Specifically, industry leaders are concerned about the past and potential future loss of qualified trainers and consultants to outside organizations. Offering competitive salaries was cited as the most important need for retaining a critical mass of qualified trainers.

## RECOMMENDATIONS<sup>1</sup>

### **1. Economic Considerations**

#### *1. Increase international clients as share of the industry's customer base.*

Thousands of international visitors come to NZ annually, but they account for a very small share of the sports turf industry clientele. With negligible promotional efforts from the STI, international visitors are readily attracted by competing industries to spend their discretionary income elsewhere. This need not be the case. The STI could acquire a larger market share by developing effective long-term marketing and advertising programs that target international clients. Doing so will require generating sustainable financial resources from the industry and seeking government promotional funding where possible.

#### *2. Reduce the number of sports turf clubs through amalgamation.*

Too many clubs are not economically viable. Memberships are low despite low fees. Clubs lack financial resources to pay staff adequately, to maintain club resources, and to advertise and promote their club to non-local clientele. The industry must do a better job at raising the professional standards of employees, remunerating staff at levels consistent with their qualifications, and promoting sports turf careers as a viable career choice for younger people.

#### *3. Run clubs as a business and not as charitable organization.*

Operating a club as a business requires hiring qualified managers with formal business training and at least some background in the technical aspects of the sporting venue. Golf club managers must recognize the vital role course superintendents play in the success of the club. Regular and effective communication between these two managers is essential for the club's long term financial wellbeing. Membership fees should be raised as well as daily rates for non-members. Consider which operational activities might be less expensively contracted.

#### *4. Develop viable trade organizations including an umbrella organization with representatives from each sports turf sector.*

Although some trade organizations exist, many are not effectively communicating with their members. According to listening session results, many local clubs feel isolated, lack adequate resources to run their operation, and are in desperate need of leadership and advice from national organizations. If the NZ STI is to overcome the malaise that affects many sectors of the industry, a more effective network of communication will be necessary at three levels: a) within clubs — between committees and members; b) horizontally — among clubs; and c) vertically — at the local, regional and national levels. Improved communication between trade organizations and the NZSTITO is also encouraged. Communication is the first step towards identifying problems and developing strategies towards workable solutions.

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<sup>1</sup> This section addresses Stage 6 of the TEC guidelines to ITOs.

## **2. Labour Skills Assessment**

### *1. Raise salaries of best employees and develop career advancement opportunities.*

The STI must recognize the inevitability of this recommendation. An employee is any business or organization's most important resource. Yet low salaries were mentioned repeatedly as the primary reason for an industry-wide labour shortage. This claim was verified in survey results. A second major impediment was a lack of career advancement opportunities for qualified employees. This means that the best employees, because they are the best, will have opportunities elsewhere. Absent competitive pay and career advancement, these high caliber people will go elsewhere, and it will likely not be in the STI.

Accomplishing this task requires adopting the four economic recommendations mentioned above to overcome a classic Catch-22. Sporting venues indicated they could not raise salaries because they lacked the finances to do so. Finances were insufficient because of low revenues due to inadequate memberships, low membership fees and low daily playing fees. Clubs were reluctant to raise fees because members would likely go elsewhere. Hence the Catch-22. Implementing recommendations 1–4 is essential if sporting clubs wish to stop and reverse the needless downward cycle. Club managers and boards of directors need to become more proactive at conveying to members the importance and urgency of changing course.

### *2. Aggressively target younger people for employment.*

An aging workforce was cited repeatedly as a major industry concern. Young people are not attracted to the STI because of low wage rates and the perception that it is not a viable professional career. These perceptions can only be changed by increasing salaries and assertively promoting employment opportunities. This action will also necessitate more comprehensive screening of potential employees to differentiate achievers and self-starters from the rest of the pack. The goal should not just be to attract younger people, but to attract young people who can help make a difference to the organization.

### *3. Raise the professional standards of employees.*

If employees are to be paid more, then more should be expected of them. Raising professional standards at the organization level is essential if the STI's image is to be improved. Hiring the best people, investing in them as a critical resource, and holding them to high professional standards will pay dividends in the long term.

### *4. Consider training needs of the best employees and invest in training.*

Survey results indicated the need for both qualified and unqualified employees. Many maintenance activities do not need specialized training and many employees do not want it. Clearly there is a viable niche for unqualified people. On the other hand, raising employee standards, and ultimately the image of the organization, relies on investing adequately in the best employees. "Best" is underlined because too often organizations train the wrong people with little or nothing to show for their investment. In actuality, "unqualified" people should receive training, even if it is informal, on the job instruction. All employees, including the unqualified, should be trained consistent with the professional standards and image the organization wishes to project to the community at large.

*5. Increase the ethnic diversity of the labour force pool.*

White males dominate (96%) the aging STI workforce. Employees are getting older and younger people are not replacing them as they leave. Survey results verified women and ethnic minorities are almost exclusively overlooked. This is an untapped labour resource that could offer substantial returns for those willing to use it. Listening sessions indicated that those organizations that had hired women and minorities were very pleased with the results. A more ethnically diverse labour pool might also increase the size and diversity of club membership.

**3. Industry Training Needs**

*1. Better screening of trainees prior to enrollment.*

Some poor quality students enter turf programs as a last resort. Enormous resources are invested in getting students to completion. In listening sessions, Polytechnics mentioned that about 25 percent of students do not complete the program. Training providers recognize that at some point government funding will be contingent upon student completion.

*2. Review current graduation standards with the goal of reducing the number of marginal graduates.*

Although opinions differed depending on the sector, the variability in graduate abilities was definitely a prominent issue. A frequent comment was that many graduates required additional training after certification had been acquired. This problem may have been recognized during the block course portion of the program or during on-job training. Wherever it is, the ITO needs to locate the source of the problem and correct it. At the same time, it is important to recognize that, frequently, employer expectations may be too high with respect to graduates. Most graduates require an adjustment period to apply what has been learned to the needs and challenges of the venue. The quality of graduates may also be related to recommendation number 3 below.

*3. Thoroughly review the on-job moderation process to ensure objectivity and that standards are met consistently.*

Concerns were cited that the on-job moderation process was not objective enough with standards consistently enforced. The entire process should be reviewed to assess where improvements can be made, how they should be made and who should do the on-job moderation. Ideally, an independent team should review the moderation process.

*4. Improve communication between the ITO and the STI.*

Quality of communication between the ITO, training providers, and the STI varied considerably depending on the sector/venue. Generally, those sectors like bowls and golf clubs that were on the ITO Board felt that communication was good. Other sectors — like racing, croquet and schools — felt it needed improvement. Contractors, in particular, felt that a substantial disparity existed between their expectations and those of the ITO's. This concern surfaced during the listening sessions and was later verified in the survey.

5. *Review block courses to ensure they contribute to the educational program and those courses are adequately linked together.*

This recommendation has two components. The first regards a concern that block courses are overly biased towards golf and bowls, and do not adequately address other sectors like race tracks and schools. A second comment was made that unit standards are not sufficiently linked, so that students lack the “big picture” of sports turf maintenance. In other words, courses often appear incongruent so that students lack an understanding of how each individual course contributes to the overall turf maintenance program.

6. *Develop and implement strategies to ensure retention of core NZSTI and NZSTITO faculty.*

Just as many employees in the sports turf industry are drawn elsewhere due to better employment opportunities, the NZSTI and NZSTITO organizations face the same risks. Replacing qualified faculty is extremely difficult because of the dual roles many of them fulfill — as educators and as consultants. Decision makers for these two organizations need to be proactive and aggressive in minimizing the likelihood that critical resource people suddenly leave.

7. *“Other” significant recommendations from the open-ended part of the survey include the following:*

- A ‘green keeper technical handbook’ containing a list of diseases, fertilizers, sprays and remedies were badly needed and long overdue. Actually, a handbook covering each of the major sports turf sectors might be a good idea.
- Apprentices interchanging with other clubs in the same industry to broaden practical knowledge. Mandatory condition of employment that all staff attend seminars and keep up-to-date on chemical requirements.
- Over-emphasis on one particular sport — particularly golf — at the expense of other sporting sectors.
- Develop distance learning courses for on-site training or turn provincial field days into training days with credit. This would particularly help more rural communities and those with limited funds who cannot afford formal personal training. Offer more technical information on-line (learning centers on the net).
- Need more refresher courses to maintain competency and acquire new skills.
- Many training issues are the fault of the workplace that fails to educate fully in parallel with training. Perhaps follow-through programs (or a handbook) should be developed for sports turf organizations with recent graduates/apprentices to minimize workplace training failures or oversights.

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# **New Zealand Sports Turf Industry Survey & Future Skills Analysis Project**

by  
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## **INTRODUCTION**

The following study was prompted by the Industry Training Amendment Act 2002 in which the New Zealand Government charged the country's 42 Industry Training Organizations (ITOs) "*to provide leadership within the industry on matters relating to (labour) skills and training needs...*" The purpose was to "*reduce the risk that economic growth and employment prospects are undermined by preventable skill shortages*" (Tertiary Education Commission). In other words, the government recognized the strong linkage between a country's economic growth and an adequate supply of labour trained with an array of suitable skills. A country's labour needs should include the entire spectrum of skills, not just in terms of diversity but of depth within a given skill area. For instance, relatively low skilled labour will always fill a niche within most developed economies. Moreover, a country's labour assessment should be considered within the broader context of increased globalization, fluid domestic and international labour markets, and the likely direction and growth of domestic industries. No country operates in isolation — it is constantly impacted to greater or lesser degrees by other countries and the broader international community.

Recognizing the importance of future labour skills to the economic viability of the sports turf industry, the New Zealand Sports Turf Industry Training Organization (NZSTITO) initiated its own skills assessment study in February, 2006 in conjunction with faculty from the University of Florida (UF). NZSTITO's collaboration with an outside organization (UF) with no direct stake in project outcomes was a strategic attempt to introduce objectivity to the study. To obtain credibility and the greatest potential impact, results must be seen as independent of NZSTITO. Hence, all data collection and analysis of results and writing of the initial report was done by the University of Florida. The project officially began in early February 2006 upon the arrival of the Project Investigator from the United States, and will be officially closed upon the submission of the final report to NZSTITO in November of 2006.

The objectives of this project were two-fold, based primarily on the Tertiary Education Commission's "*Guidelines to Assist ITOs to Provide Leadership Within Industry on Skills and Training Needs*". The first objective examined the economic environment of the New Zealand sports turf industry, recognizing the linkage between labour resources and a country's economic health. Sectors comprising the industry include golf courses, bowling clubs, councils and contractors, racing clubs and schools. Since two earlier studies examined the economic status of the New Zealand Sports Turf Industry, a similar approach was employed to capture changes in the industry over time (Way, 1994; 2001). Those studies examined land areas and values, employment, including demographics of employees, budget information and use of resources.

The second objective focused on a labour skills assessment, examining both current and future skill needs of the sports turf industry. The purpose of this objective was to allow the NZSTITO to identify critical training needs within the sports turf industry, which would then be used as input into designing and developing training programs for use by industry training providers.

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This report is organized into the following sections — 1) research methodology; 2) summary of listening sessions; 3) economic characteristics of the sports turf industry; 4) labour skills assessment; 5) industry training needs; and 6) summary and recommendations.

## **RESEARCH METHODOLOGY**

The New Zealand sports turf industry comprises many different public and private sectors with several comprising overlapping sporting venues. For instance, Councils and Schools — both public institutions — contain winter sports fields, cricket blocks and tennis courts. Most remaining sectors are limited to one primary venue. For the purposes of this study, a total of six sporting categories were examined — golf courses, bowling clubs, councils, race tracks, public and private schools, and croquet clubs.

Given the geographic and cultural differences within the sports turf industry, listening sessions were conducted throughout the country in March, 2006. Seven groups representing ten distinct industry sectors were interviewed. Also referred to as “focus groups”, listening sessions are useful for obtaining in-depth information on a topic or subject. Results of the sessions contributed importantly to the development of the survey instrument and provided a focus and direction for the investigation. A secondary purpose was to give the “external” project investigator an opportunity to meet key industry people from New Zealand and to view first hand geographic and economic variations across the country. A final purpose was to convey to listening session participants and other industry professionals the type of research being undertaken and the importance of industry cooperation.

To expedite the interview process and reduce travel time and costs, “similar” sectors were grouped together (Table 1). A set of questions was developed prior to the meeting to keep the investigation focused and productive. People were invited who were considered knowledgeable about their particular organization in addition to the larger industry. Session participation ranged from 7–11 people.

Table 1. Listening session conducted in the North and South Island of New Zealand, March, 2006.

<b>Sports Turf Sector</b>	<b>Venue Location</b>	<b>Date (2006)</b>	<b>Number of Participants</b>
Sportsfields/Cricket/Contractors	The Clubhouse, Air NZ Domestic Terminal, Auckland	March 8	11
Golf Club Managers	Akarana Golf Club, Auckland	March 9	8
Bowling Clubs	NZSTI, Palmerston North	March 15	8
Golf Course Superintendents	Brentwood Hotel, Wellington	March 16	8
Training Providers	TOPNZ, Lower Hutt, Wellington	March 17	6
Lawncare Contractors & Schools (Public & Private)	Harewood Room, Christchurch Domestic Terminal	March 23	8
Trade Supply Firms	Prebble Seeds Office, Prebbleton, Christchurch	March 24	7

A questionnaire was developed using the TEC report to ITOs and the 2000 NZSTI Survey Questionnaire as project guidelines mentioned above. Additionally, many specific questions were formulated based on results of the listening sessions conducted earlier. After several revisions, a draft of the survey was sent to the University of Florida, Gainesville where the survey was to be administered by Statisticians via the Internet using SurveyMonkey (<http://www.surveymonkey.com/>). The questionnaire was then sent to listening session participants for pre-testing via e-mail with a hot-link to the internet survey site. Respondents were asked to fill out the questionnaire as if they were completing it for their venue/organization. Input was requested on clarity of the questions, redundancy or non-importance, and length of time to complete the survey. Overall length of the questionnaire was a concern, as was the anticipated difficulty in reaching appropriate people who could fill it out in its entirety. In some instances, more than one person would be required to assist in gathering the information. A copy of the final questionnaire can be found in Appendix A.

The survey was launched in early May. A cover letter was written that explained the purpose of the survey and instructions for completion. For some sports turf sectors (e.g., golf, bowls, racing and councils), e-mails were sent to the Executive in charge of the national organization. In turn, these people were requested to distribute the survey to all members. In the case of schools, mailing lists were obtained and emails were sent directly to them. However, a problem soon emerged due to the large number of schools (2,600) and the absence of a primary contact person from the lists provided. This was in contrast to smaller sectors (typically several hundred venues) that had membership lists with owners/managers identified. The absence of a key contact person for schools may account for the relatively small number of returns.

After 2–3 weeks, a reminder was sent to all survey recipients. This was repeated three separate times. A mail (hard copy) survey was also sent to those sectors less likely to use the internet, such as bowling clubs, and individuals specifically requesting hard copies. The survey was terminated at the end of August, 2006, with a total of about 500 responses received. Unfortunately, roughly 200 surveys (40%) could not be used as they were only partially completed and essential questions had been omitted.

Industry population estimates for each sports turf sector and the number of usable survey responses are presented in Table 2. As a percent of population, response rates ranged from a high of 40% for councils to a low of 2.2% for schools. As noted, this low response is attributable to email listings that provided no official contact person to complete the questionnaire.

Table 2. Number of usable survey responses for each sports turf sector and sector populations, 2006.

Sports Turf Sector	Respondents		Population	
	Number	Percent	Number	Percent
Golf	60	21%	400	15%
Bowls	74	25%	670	11%
Councils	29	10%	72	40%
Racing	13	5%	44	30%
Schools	58	20%	2,600	2%
Croquet	13	5%	139	9%
Mixed/Other	34	14%	n/a	n/a
<b>Total</b>	<b>292</b>	<b>100%</b>	<b>3,925</b>	<b>7%</b>

This study also sought to differentiate sporting venues by type of operation — whether run by an owner or manager, or whether the facility was managed by a contractor. Contractors are increasingly used to maintain turf areas. Since contractors represent an external management entity, their business purpose and labour skill base will likely differ from all other sectors in the sports turf industry. The breakout of survey respondents by type of operation is shown in Table 3. As can be seen, 80% of venues interviewed were operated by an owner or manager, 18% by a contractor, and 2% were unspecified.

Table 3. Number of respondents across all sports turf sectors, by type of operation.

Type of Operation	Golf	Bowls	Councils	Racing	Schools	Croquet	Other	Total	Percent
Owner/Manager	52	60	12	11	55	11	30	234	80%
Contractor	7	11	17	2	2	2	3	52	18%
Unspecified	1	3			1		1	6	2%
Total	60	74	29	13	58	13	34	292	100%

Table 4 presents information on the geographic distribution of survey respondents across both the North and South Islands of New Zealand. With the exception of Canterbury and Otago/Southland, all regions presented in the table are from the north island. North Island regions comprised three-quarters of all survey responses, while the South Island made up the remaining 25%. These proportions would be roughly representative of the number of venues in the respective islands.

Table 4. Number of survey responses by geographic region [North Island (NI) or South Island (SI)] of New Zealand.

Region	Golf	Bowls	Councils	Racing	Schools	Croquet	Other	Total	Percent
Northland (NI)	1	5	4		4			14	5%
Auckland	8	15	8	1	12		2	47	16%
Waikato	7	4	4	1	7	2	2	28	10%
Bay of Plenty	7	3	2	1	2			16	5%
Taranaki/Wanganui/ Manawatu	7	8	7	2	8	2	1	40	14%
Hawkes Bay/East Coast	4	2	1	1	2			11	4%
Wellington/Wairarapa	8	7	7		8	2		33	11%
Nelson/Marlborough/ West Coast	3	3	5		4	2		19	7%
Canterbury	7	13	2	5	12		1	43	15%
Otago/Southland	6	9	4	2	2	3	1	28	10%
Total by venue	58	69	44	13	61	11	7	279	96%

## RESULTS

### Part 1. Listening Session Summaries

The listening sessions were recorded and transcribed into written text in Microsoft Word. Participant identifications were kept confidential in the listening session process so that personal opinions would be more forthcoming. Transcriptions averaged between 25–30 pages of single page text. Through careful review, these lengthy versions were reduced to 4–6 pages highlighting the most substantive comments. These condensed versions were then further summarized into roughly single page bulleted text, results of which are presented in Appendix B.

A review of the listening sessions indicates a pattern of issues or concerns that often apply across sports turf sectors. These common themes are largely inter-related and address conditions both external and internal to the industry. These common themes are briefly summarized below. The reader, however, is strongly encouraged to review individual sector responses in the Appendix as they can differ markedly in certain areas. The following listening session summaries are organized into three sections: 1) Demand for Sports Turf Amenities, 2) Labour Skills Assessment, and 3) Industry Training Issues.

#### A. Demand for Sports Turf Amenities

- Perception of falling demand for some sporting activities.
- Greater competition from non-sporting events.
- Schools & councils foresee rising demand for their limited sports facilities.
- Training providers anticipate stable domestic demand but large international potential.
- Industry is slow to recognize changing consumer preferences.
- Potentially lucrative markets are frequently over-looked.
- Rising consumer expectations for venue quality despite flat or falling budgets.
- Over-reliance on non-competitive financial resources (gaming monies)

##### Growth Obstacles

- Lack of communication between national leaders and local clubs.
- Too few clubs run like a business.
- Competition between family time and work time.
- Too many non-viable clubs with too few members.
- Councils' use of low tender approach to award contracts.
- Low salaries and wages resulting in high staff turnover
- Failure to pool resources to achieve common objectives.

#### B. Labour Skills Assessment

- Non-ethnically diverse work force dominated by white males.
- Few women, although trends slowly improving.
- Clear shortage of both skilled and unskilled labour.
- Reliance on overseas people to fill high skill areas.
- Aging workforce not being replaced by younger workers.
- High staff turnover rates.
- Poor pay and few career advancement opportunities.
- Continued reliance on volunteers within some sectors.
- Failure to adequately promote job opportunities.

### **C. Industry Training Issues**

- Variable perception of training quality, depending on venue.
- Concern that on-job moderation process lacks objectivity and consistent standards.
- General belief that more business-type skills needed in sports turf.
- General belief that more practical application needed in block courses.
- Disparity between the ITO's and the industry's expectations for training.
- Improved communication between the ITO and some sports sectors.
- Too much red tape, too many trainers and too few trainees.
- Certification does not translate to better pay.
- Schools have poor view of sports turf profession, do not support training.
- Unit standards are not linked, so students lack the "big picture"
- Training gaps in human resources and management.
- Need improved screening and differentiation of student potential.

## **Part 2. Economic Characteristics of the Sports Turf Industry**

In its guidelines to Industry Training Organizations (ITO), the Tertiary Education Commission (TEC) observed that it was up to the ITOs to provide leadership within their industry on labour skills and training needs. To do so, it recommended that ITOs adopt a ten-stage strategic planning cycle. The first stage was to identify which sectors within the industry should be included. Essentially all major sectors were included, with emphasis given to those sectors that utilize the NZSTITO for training purposes. Stages 2–4 are essentially a socio-economic assessment of the industry's current position and where it will likely be in the next five years. Stages 5 & 6 focus on describing the industry's current training system status and identify future skill needs to ensure long run socio-economic performance. Stage 7 involves developing a draft strategic training plan and circulating it to industry groups for feedback. Stages 8 through 10 involve feedback review, strategic planning revisions, strategic planning implementation and future evaluation. The following section addresses stage 2 to provide a descriptive characterization of the New Zealand Sports Turf Industry in general as well as indicators of specific sports turf sectors.

### Venue Areas

Results of listening sessions made it clear that sports and amenity (passive) turf areas are of considerable importance to local communities. In addition to the numerous recreational benefits sports turf areas offer, there are obvious economic ones as well, including income generation, employment and taxes that support the local and national economy. New Zealand offers a full range of both public and private facilities that are available to its citizens and international visitors.

In 2006, there was an estimated 122,328 gross hectares dedicated to sports turf activities in New Zealand (Table 5). This figure includes land for buildings and gardens as well as dedicated turf areas. Of the six major sectors examined, schools comprised just under half (48%) of total land area, followed by councils (30%) and golf courses (20%). Bowls, racing and croquet comprised the remaining 2 percent. Average areas managed per venue varied considerably, from a high of 504 ha for councils, to a middle value of 63 ha for golf courses and a low value of 0.6 ha for croquet clubs.

Of this total industry area, 58,139 hectares (48%) constituted the "net" turfgrass area managed for both sports and amenity uses. This figure is very close to the 61,790 hectares estimated by NZSTI in 2000 (Way, 2001). Schools, councils and golf courses made up the majority of managed turf areas and, again,

very similar to the distribution in 2000. Average managed turf areas ranged from 250 ha for councils, 39 ha for golf courses and 0.3 ha for bowling clubs. Finally, a very small amount (26 ha) of synthetic playing surfaces were utilized by the sports turf industry. All sectors but race tracks and croquet clubs used synthetic surfaces, with areas per venue ranging in size from 0.8 ha for councils to 0.3 for schools. The average number of sporting units per venue is shown in Table 6. Figures range from a high of 18 sports fields for councils, to a low of 1.2 greens per bowling club.

Table 5. Sports turf industry venues with total and average turfgrass areas expressed in hectares, 2006.

Area	Estimate	Golf	Bowls	Councils	Racing	Schools	Croquet	Total
		(ha)						
Entire Venue	Total	25,361	478	36,326	1,862	58,217	83	122,328
	Average	63.4	0.7	504.5	42.3	22.4	0.6	49.4
Turf	Total	15,649	184	17,971	1,559	22,711	64	58,139
	Average	39.1	0.3	249.6	35.4	8.7	0.5	31.5
Synthetic	Total	18	42	60	0	892	0	26
	Average	0.05	0.06	0.8	0.0	0.3	0.0	0.3
Percent		26.1%	8.5%	39.2%	3.9%	6.6%	0.1%	100.0%

Table 6. Average number of sports units per venue, 2006.

Sports Turf Venue	Description
Golf	14.6 holes per club
Bowls	1.2 greens per club
Councils	18 sports fields per district
Racing	2.5 tracks per
Schools	2.1 sports fields per school
Croquet	3.1 lawns per club

### Business Outlook

Although New Zealand is an exceedingly beautiful country, the island nation is also isolated with its closest neighbor, Australia, lying some 2,500 kilometers distant. Economic theory suggests that trade with other nations is a function not only of distance (impacting transaction costs), but also the size of the potential market. Larger markets would tend to mitigate transaction costs associated with great distances. As a country with only 4 million people, New Zealand represents a relatively small market potential with high transaction costs. This implies that trade inflows for some sectors may be weak or modest at best. Survey results generally support this assertion for the sports turf industry.

In the New Zealand Sports Turf Industry survey, respondents were asked what percentage of their business occurred from international versus domestic clientele. For the industry as a whole, 96 percent of business transactions were with domestic clients, while 4 percent were international (Table 7). Two exceptions were golf courses at 92 percent domestic customers and councils with 75 percent.

Table 7. Share of business from NZ vs. international customers and growth next 5 years.

Business Expectations	Percent Share						
	Golf	Bowls	Councils	Racing	Schools	Croquet	Total
1. Business from NZ Clients	92.1	99.7	75.0	99.0	100.0	100.0	95.9
2. Growth Next 5 Years							
Strong	9.1%	1.5%	50.0%	0.0%	0.0%	0.0%	7.0%
Moderate	60.0%	21.5%	50.0%	54.5%	0.0%	33.3%	40.1%
Static	25.5%	53.8%	0.0%	27.3%	66.7%	66.7%	39.5%
Negative	5.5%	23.1%	0.0%	18.2%	33.3%	0.0%	13.4%

Both of these two sectors likely benefited directly from tourists visiting New Zealand — golf being a “universal” international sport, and councils benefiting from a diverse array of tourist attractions.

Regarding business expectations over the next five years, for the industry as a whole, only 7 percent anticipated strong growth. Interestingly, 50 percent of councils expected strong growth and roughly 10 percent of golf courses. Again, as suggested above, these two sectors tend to benefit first and most from tourism. Nearly 80 percent of respondents anticipated moderate or static business growth. Schools, bowls and race tracks had the most pessimistic view of the future, all three expecting significant declines in growth.

### Obstacles to Growth

The mirror image of business expectations is the identification of important obstacles to growth. Information obtained during the listening sessions identified six major impediments (Table 8). Although information was obtained from individual sectors, results were sufficiently uniform so that, in the interest of simplicity, only industry averages are presented. Respondents were asked to rank them based on their perceived importance. Using “most important” as the guiding criteria, at 40.0 percent “aging population” was identified as largest obstacle to growth. This was followed closely by “competition from other sporting & non-sporting activities” (32.6%) and “a lack of time to play sports” (32.4%). Ranked fourth (25.9%) was a “small New Zealand population”, followed fifth (22.3%) by the “financial cost associated with playing sports. The “growth rate of the NZ economy” was ranked last (in the “most important” category) with 17.5%. In other words, four of the six “most important” reasons were economic, with the remaining two being demographic or political (restrictive immigration policies). Nearly all the reasons cited were considered “somewhat important”. Two issues stood out as “least important — “growth rate of NZ economy” (43%) and the “financial cost of playing sports” (28.8%). Other reasons cited in open ended questions were the “cost of travel”, too many “duplicate facilities” and a “negative attitude of club management”.

Table 8. Obstacles impacting the growth of the New Zealand sports turf industry, 2006.

<b>Obstacles to Growth of Turf Business</b>	<b>Number</b>	<b>Percent</b>
1. Lack of time to play sports		
Least Important	22	15.5%
Somewhat Important	74	52.1%
Most Important	46	32.4%
2. Competition from sporting & non-sporting activities		
Least Important	22	16.3%
Somewhat Important	69	51.1%
Most Important	44	32.6%
3. Financial cost associated with playing sports		
Least Important	40	28.8%
Somewhat Important	68	48.9%
Most Important	31	22.3%
4. Small NZ population		
Least Important	34	24.5%
Somewhat Important	69	49.6%
Most Important	36	25.9%
5. Aging NZ population		
Least Important	31	21.4%
Somewhat Important	56	38.6%
Most Important	58	40.0%
6. Growth rate of NZ economy		
Least Important	49	43.0%
Somewhat Important	45	39.5%
Most Important	20	17.5%

### Schools & Councils

As public institutions, schools and councils face somewhat different issues than privately owned organizations with respect to their capital resources. Consequently, separate questions were asked regarding the current and future demand for and supply of their sports field's resources. The quality of their sports fields was also of interest. Quality issues not only shed light on the adequacy of financial resources (including labour) to maintain fields to satisfactory conditions, but also reveal intensity of use. Maintaining acceptable quality standards is difficult in over-used fields.

In terms of the current demand-supply situation, 71 percent of schools indicated sports field capacity was adequate, while only 56 percent of councils concurred (Figure 1). Twice as many Councils (36%) as schools (18%) claimed that field capacity was inadequate and slightly more councils felt capacity was greatly inadequate.

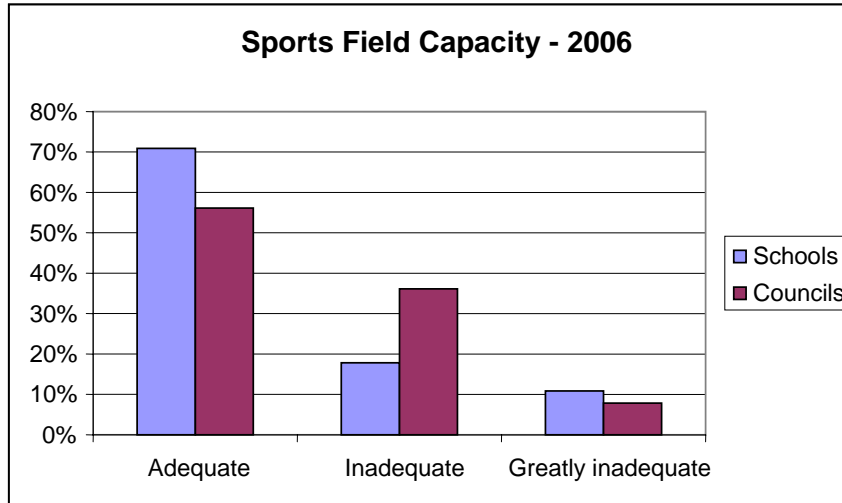


Figure 1. Current sports fields capacity for Schools and Councils, 2006.

Regarding quality of sports fields, roughly one-third (31%) of councils believed their fields were in very good condition compared to only 16 percent of schools (Figure 2). The two institutions were fairly even in identifying their fields as in “good” or “average” condition. However, substantially more schools (20%) indicated their fields were in poor condition than did councils (4%). In general, this may suggest that the top echelon of schools is in better shape financially than top-tier councils. Conversely, a much larger proportion of schools are likely to be severely under-funded with respect to sports field maintenance than are councils. As indicated in the listening sessions, this may be because physical education is a very low priority with schools compared to teacher salaries and maintaining adequate classroom facilities.

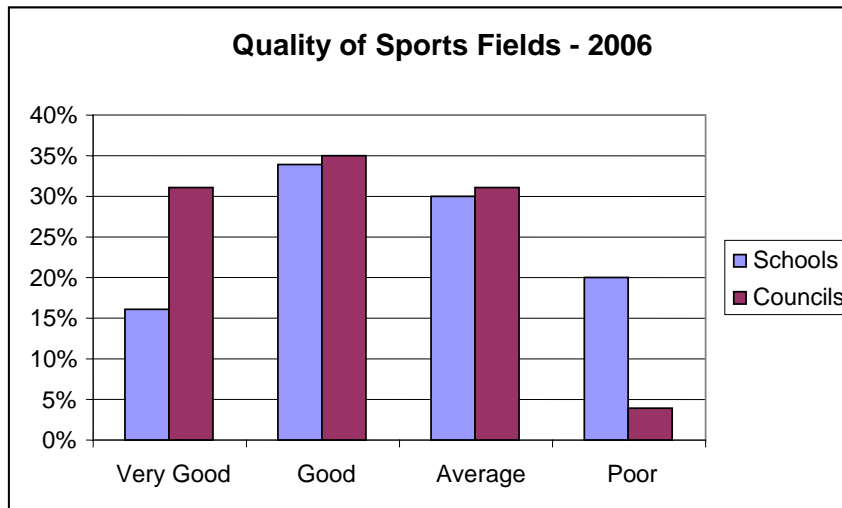


Figure 2. Current quality of sports fields for Schools and Councils, 2006.

A final question examined the expected future demand for sports turf resources (Figure 3). Compared to schools, councils were much more concerned about future growth. Nearly three-quarters (71%) of councils expected demand for sports fields to increase a lot or moderately compared to only 32 percent of schools. This is logical given that a large number of councils (44%) felt that current sports field capacity was either inadequate or greatly inadequate. Listening sessions indicated that a key concern of councils was having adequate space to expand sports field capacity. Larger councils were more constrained by available land whereas smaller councils were impacted by funds to purchase the resources. Finally, neither group significantly indicated they expect a decline in sports field use.

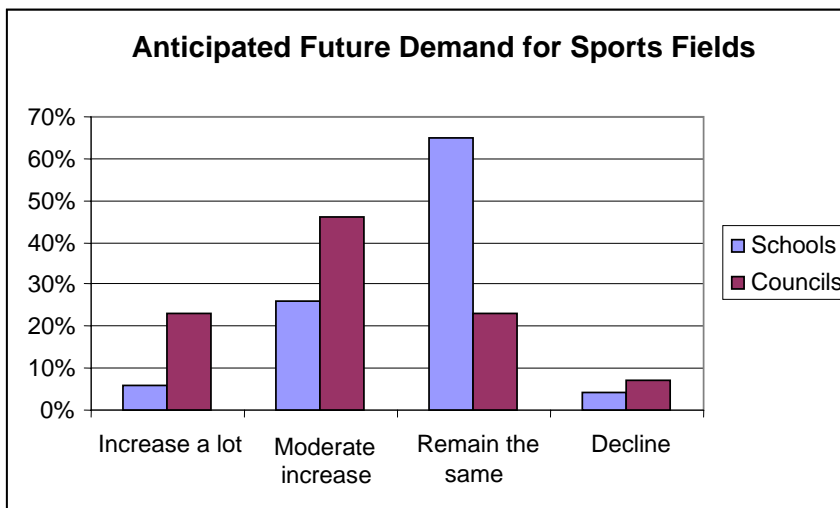


Figure 3. Anticipated future demand for sports fields capacity for Schools and Councils, 2006.

### Value of Assets

The total value of assets of an industry is a gross indicator of wealth and economic position within a region or country. In 2006, the New Zealand sports turf industry is estimated to have had nearly NZ\$33 billion in assets which included land, buildings, improvements and equipment. The distribution of these assets across industry sectors is shown in Figure 4. Schools owned the largest share (70%) within the industry, due primarily to the sheer numbers of public and private schools within the country. Councils were a significant second with 20 percent of total assets, with golf courses following a distant third (6%). The remaining three sectors constituted 4 percent of total assets.

Assets were grouped into one of three categories — land, capital improvements and buildings, and equipment. Overall, 44 percent of assets were comprised of land, 55 percent of improvements and buildings, and roughly 1 percent in equipment (Table 9). However, this distribution varied considerably by sports turf sector. For instance, land was naturally a large component of a golf club’s total resources (78%) as it was also for councils (73%). Schools, on the other hand owned, as a share of total assets, relatively little in land (32%) but a great deal (67%) in improvements and buildings.

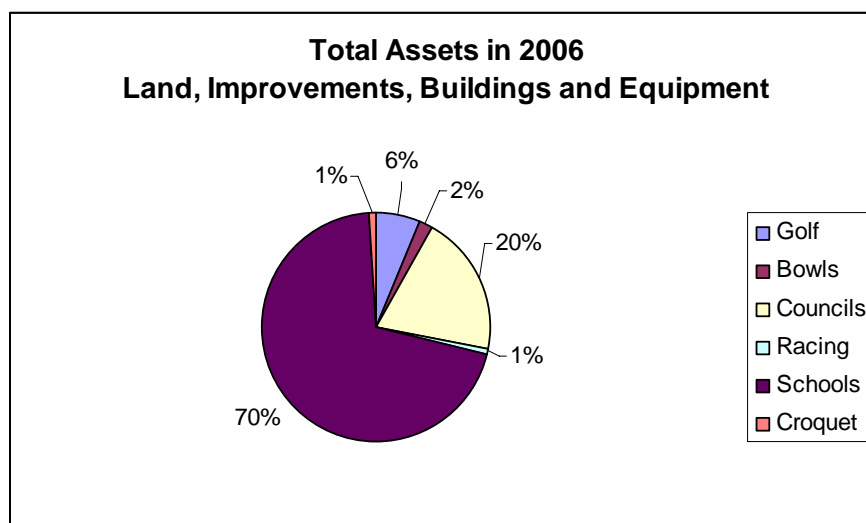


Figure 4. Total financial assets of the New Zealand sports turf industry in 2006.

Table 9. Value and percent share of assets by the New Zealand sports turf industry in 2006.

Asset	Value (Million NZ\$)	Venue						Total (M NZ\$)
		Golf	Bowls	Councils	Racing	Schools	Croquet	
Land	NZ Dollars (M\$)	1,498.82	334.91	4,995.25	135.87	7,418.86		14,383.72
	Percent Share	78%	57%	73%	39%	32%		44%
Improvements & Buildings	NZ Dollars (M\$)	302.85	236.27	1,811.30	207.74	15,766.03	10.32	18,334.50
	Percent Share	16%	40%	26%	59%	67%	n/a	55%
Equipment	NZ Dollars (M\$)	119.04	13.49	26.40	4.22	100.15	0.96	264.25
	Percent Share	6%	3%	1%	2%	1%	n/a	1%
Total Value of Assets	NZ Dollars (M\$)	1,920.71	584.66	6,832.95	347.83	23,285.04	11.27	32,982.47
	Percent Share	6%	2%	20%	1%	70%	<1%	100%

### Annual Operating Expenses

This study estimated that the sports turf industry spent NZ\$356.62 million in operating expenses in 2006 (Table 10). In terms of the share of total industry expenditures, schools (36%), golf clubs (35%), and councils (25%) accounted for the vast majority. However, perhaps of greater interest than the size of the industry budget or which sector spent more is the distribution of expenditures across budget categories. On average, 41 percent of total expenses were for wages and salaries, by far the largest single category (Figure 5). Money spent on contractor fees was the second largest expense category (18%), followed by capital expenses (13%), supplies (12%), repairs and maintenance (9%) and “other” expenses (7%).

As a share of their total expense budget, golf courses spent the most on wages and salaries (53%), followed closely by race tracks (51%), schools (49%) and bowls (46%); croquet (17%) and councils (11%) spent the least. It should be noted that although bowling clubs and race tracks spent a large percentage of their budget on salaries, their budgets were actually quite small (1–3%) relative to the industry as a whole.

Table 10. Annual operating budget and expenses by New Zealand's sports turf industry, 2006.

	Venue						Total
	Golf	Bowls	Councils	Racing	Schools	Croquet	
<b>Annual Operating Budget and Expenses (Million NZ\$)</b>							
Total Annual Operating Budget &	125.84	9.67	88.38	3.76	128.52	0.45	356.62
Percent Share of Industry Total	35%	3%	25%	1%	36%	<1%	100%
Wages and salaries for staff	67.21	4.47	9.93	1.93	62.97	0.08	146.59
Turf contractor fees	3.69	1.17	46.58	0.52	11.18	0.26	63.41
Capital Expenses	9.93	1.08	25.19	0.21	11.10	0.05	47.56
Supplies	25.01	1.46	5.42	0.30	10.69	0.03	42.91
Repairs and maintenance	14.11	1.13	1.23	0.55	15.33	0.03	32.38
Other	5.88	0.36	0.03	0.24	17.25	0.00	23.78
<b>Annual Operating Budget &amp; Expenses (%)</b>							
Wages and salaries for staff	53.4%	46.2%	11.2%	51.4%	49.0%	17.5%	41.1%
Turf contractor fees	2.9%	12.1%	52.7%	13.9%	8.7%	58.1%	17.8%
Capital Expenses	7.9%	11.2%	28.5%	5.6%	8.6%	10.3%	13.3%
Supplies	19.9%	15.1%	6.1%	8.0%	8.3%	6.9%	12.0%
Repairs and maintenance	11.2%	11.7%	1.4%	14.6%	11.9%	7.1%	9.1%
Other	4.7%	3.7%	0.0%	6.5%	13.4%	0.0%	6.7%

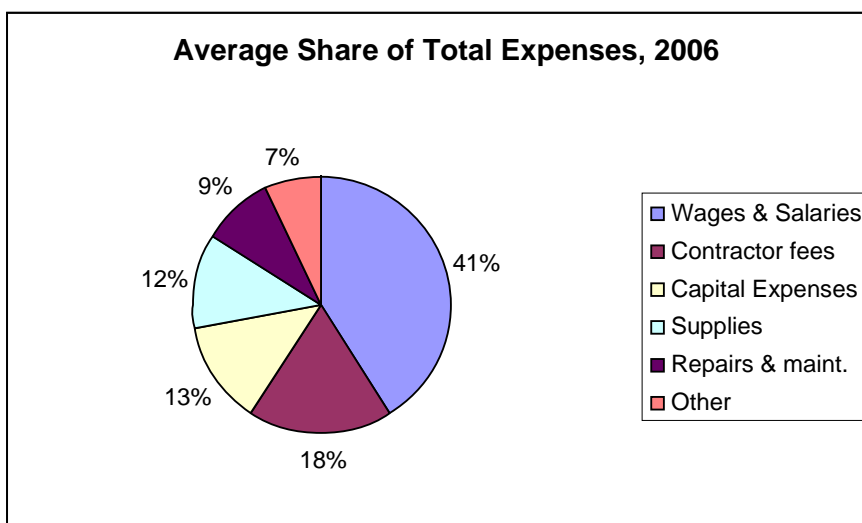


Figure 5. Average share of total expenses by firms in New Zealand's sports turf industry, 2006.

Councils (53%) and croquet clubs (58%) spent the largest share of their budget on turf contractor fees, which explains why they spent the least on wages and salaries. Golf courses (3%) and schools (9%) spent the least on turf contractor fees, preferring to do most of the work in-house. The types of contracting services that were used by the sports turf industry are shown in Figure 6.

On average only 13 percent of the total budget was directed towards capital expenditures which included primarily land improvements. Councils (28%) spent by far the most, bowls (11%) and croquet (10%) were in the middle, and golf (8%) and race tracks (6%) spent the least.

At nearly 20% of their total budget, expenditures on materials and supplies were greatest for golf courses and least for councils. Recall that councils also contracted out many turf-related projects that likely included supplies. Finally, repairs and maintenance expenditures varied from 1–11%, again the variation was probably attributable to contracting fees.

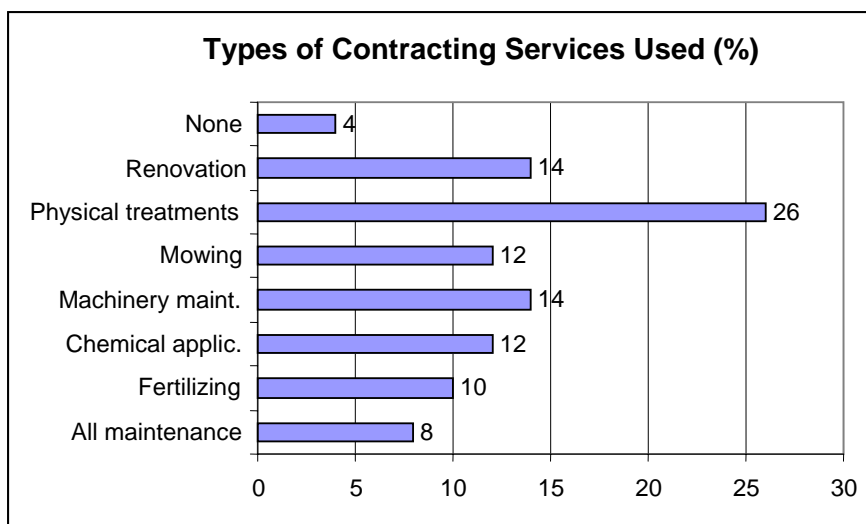


Figure 6. Types of contracting services used by the sports turf industry in 2006.

### Part 3. Labour Skills Assessment

A major objective of this project was to evaluate the current employment situation in the New Zealand sports turf industry, including the number of employees, a profile of worker demographics and wage and salary levels in 2006. Quantification of basic employee characteristics not only provides a benchmark at a particular point in time, but is necessary for addressing critical labour issues impacting the industry. These issues include current education levels in the sports turf industry, workforce adequacy, occupational skill shortages and staff turnover rates. This section addresses stages 3 and 4 of the TEC guidelines to the ITOs.

Nearly 24,000 people were employed in some capacity by the New Zealand sports turf industry in 2006 (Table 11). Of these, roughly one-third (34%) were full time, one-fourth part-time (24%) or volunteer (23%) and nearly one-fifth (19%) were contracted (Figure 7). For an industry as a whole, such employment diversity is surprising. Most industries in developed countries rely primarily on full-time workers, augmented by part-timers or contractors. Having such a large proportion of volunteer workers is atypical for most developed economies. Race tracks (45%) and schools (42%) relied the most on full-time workers while croquet (68%) and bowling clubs (59%) relied extensively on volunteers. A surprising amount (42%) of golf clubs also utilized volunteer workers.

Table 11. Number of employees working in the New Zealand sports turf industry in 2006.

Employment type	Number of Jobs and Percent of Total	Venue						Total
		Golf	Bowls	Councils	Racing	Schools	Croquet	
Full-time	Number	1,769	536	609	84	5,032	n/a	8,030
	Percent	(37%)	(13%)	(32%)	(45%)	(42%)		(34%)
Part-time	Number	496	558	1,260	57	3,224	111	5,707
	Percent	(10%)	(14%)	(56%)	(31%)	(27%)	(14%)	(24%)
Volunteer	Number	1,985	2,352	n/a	n/a	650	533	5,520
	Percent	(42%)	(59%)			(5%)	(68%)	(23%)
Contracted	Number	500	558	360	44	3,079	139	4,680
	Percent	(1%)	(14%)	(16%)	(24%)	(26%)	(18%)	(19%)
Total Number of Employees and Percent per Venue	Number	4,750	4,005	2,229	186	11,985	783	23,938
	Percent	(20%)	(17%)	(9%)	(<1%)	(50%)	(3%)	(100%)

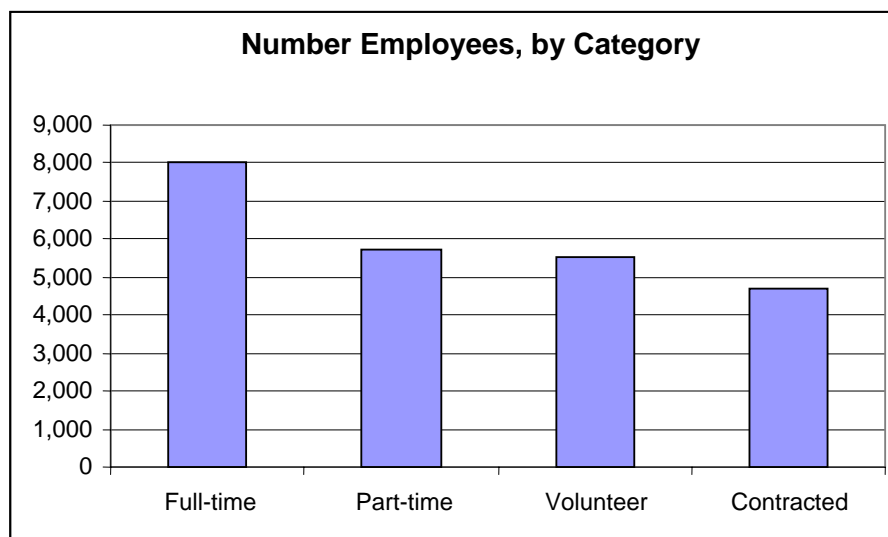


Figure 7. Number employees, by category in the NZ sports turf industry, 2006.

Across industry sectors, schools were the primary employer accounting for exactly half of total industry employment. This is not unexpected given the large population of schools compared to other sports turf sectors. Golf courses were second with 20 percent of the total, followed closely by bowling clubs (17%) and then councils (9%), croquet (3%) and race tracks (1%).

In terms of demographics, nearly all (93%) people employed by the New Zealand sports turf industry are male and most (86%) are white, with a small minority of Maori (8%) and Pacific Islanders (3%) (Figures 8 & 9, respectively). This high concentration of white males may be changing as many groups in the

listening sessions indicated they were looking to diversify employment. A repeated concern of participants in the listening sessions was the aging workforce of employees and the inability to attract or retain younger workers. This concern is confirmed with the chart shown in Figure 10. Nearly two-thirds of all workers in the sports turf industry are aged 46 or above, with 28 percent over 61 years of age. Only 11 percent were in the younger 22–30 range. Such a high concentration of older workers suggests that younger people are being drawn elsewhere for a variety of reasons, which will be discussed in upcoming sections.

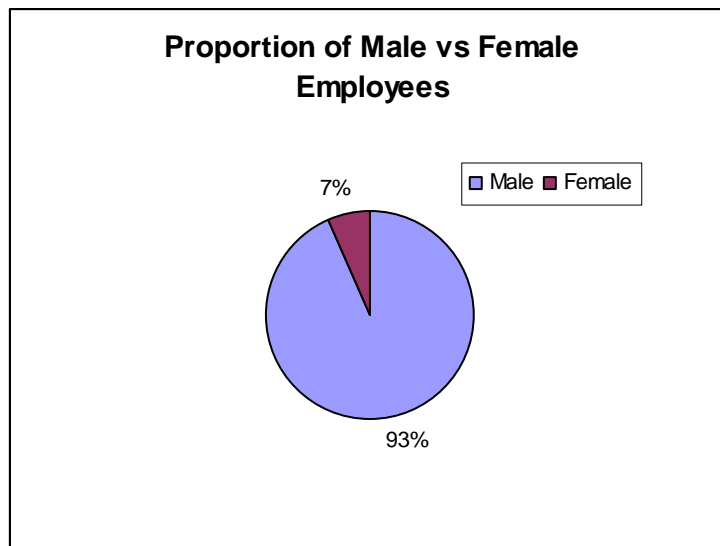


Figure 8. Share of male and female employees in the New Zealand sports turf industry, 2006

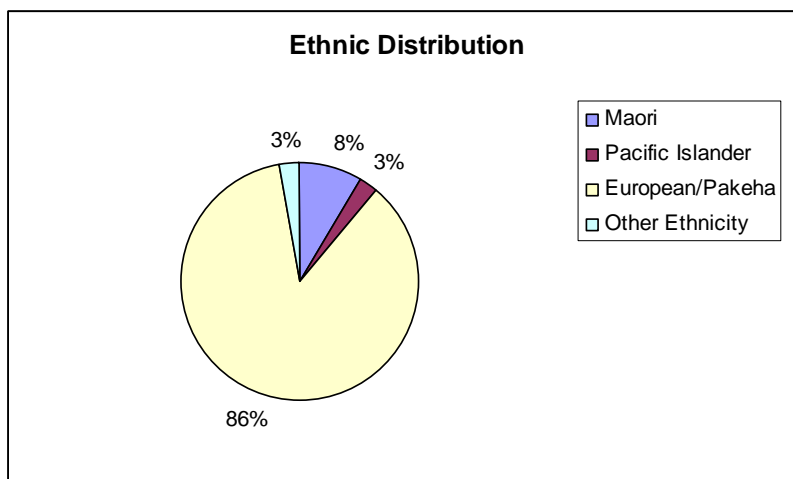


Figure 9. Ethnic distribution of employees in the NZ sports turf industry in 2006.

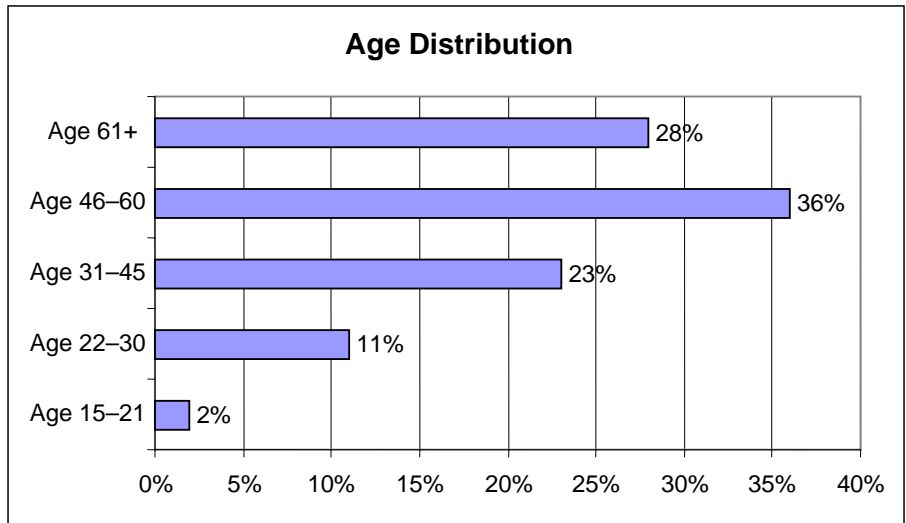


Figure 10. Age distribution of employees in the NZ sports turf industry, 2006.

### Employee Compensation

One would anticipate that perceived earning potential of a particular firm or industry relative to competing firms or industries would impact the quantity and quality of labour attracted to it. Over time, organizations compensating considerably less than their competition, would have difficulty attracting the skills needed to compete in a tight labour market. Results of listening sessions suggested that employee compensation in the New Zealand sports turf industry was a major factor influencing both the quality and availability of skilled and unskilled labour. Information in Figure 11 presents results of the distribution of wages for hourly workers. Over half (55%) of all workers received between \$10–\$15 an hour and another 20 percent received less than \$10 an hour. One-fifth of all workers made between \$16–\$20/hour and only 4 percent earned over \$20/hour. Regardless of the sector, listening session participants confirmed that competing industries, particularly construction and housing developers, paid considerably more making it difficult to for the sports turf sector to retain workers.

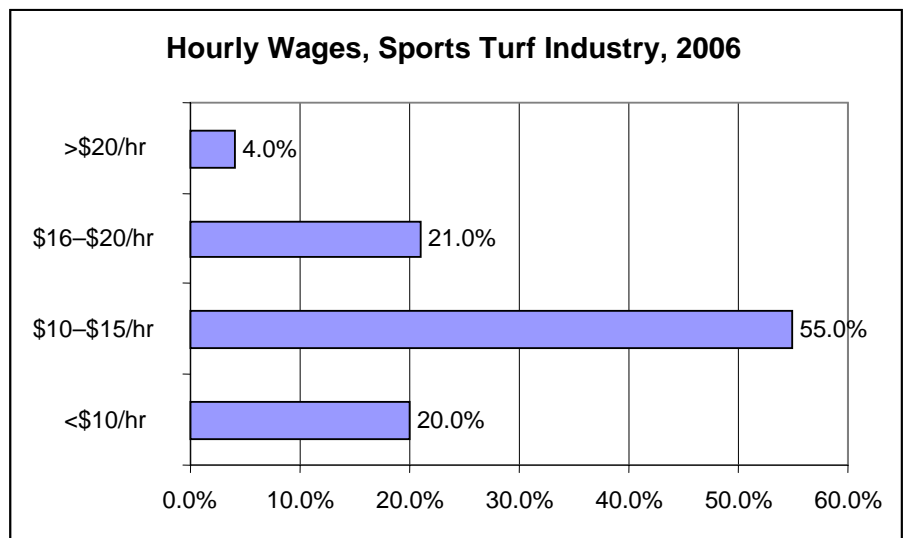


Figure 11. Compensation levels for hourly workers in the NZ sports turf industry, 2006.

Compensation rates for salaried workers in the sports turf industry are presented in Figure 12. Again, a similar picture emerges. Over one-third (35%) of salaried workers made less than \$20,000 and a full two-thirds made under \$40,000. Roughly a quarter of all workers earned in the \$40,000–\$60,000 range and only 10 percent made over \$60,000. Just over 1 percent earned in excess of \$80,000.

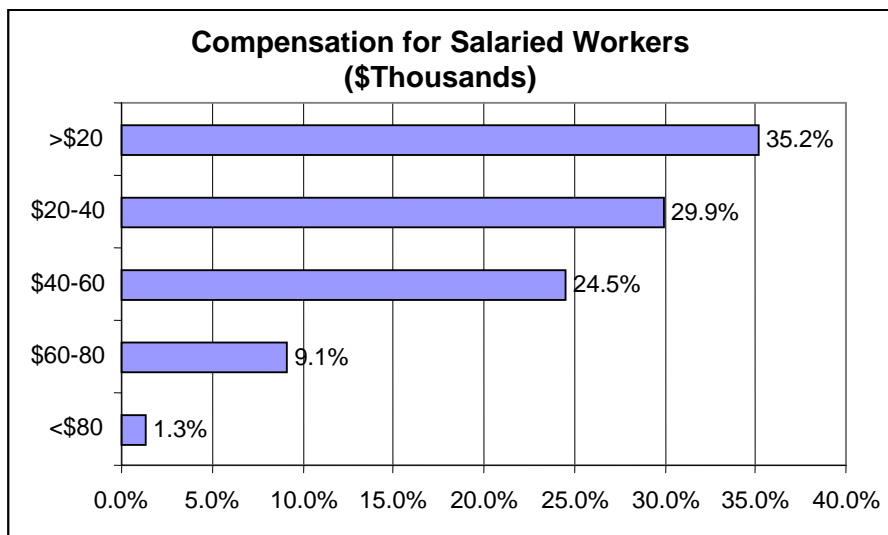


Figure 12. Compensation levels for salaried workers in the NZ sports turf industry, 2006.

Wage and salary variations across industry sectors are presented in Table 12. For salaried workers on the high-end of the earnings scale, golf, bowls and councils were the only sectors to pay above \$80,000, and these accounted for a modest 1–2% of workers. Twenty percent of racing clubs paid in the \$60,000–\$70,000 range, 9 percent of councils and 4 percent of golf courses. Roughly half of salaried employees for golf, councils and schools were in the mid-salary range (\$40,000–\$60,000).

Table 12. Employee compensation for salaried and hourly workers in the NZ sports turf industry, 2006.

Income Levels	Golf	Bowls	Councils	Racing	Schools	Croquet	Total
	Percent of Employment						
<b>Annual Wage Employees</b>							
Salary more than \$80,000	1.8%	1.1%	1.1%	0.0%	0.0%	0.0%	1.3%
Salary \$70,000–\$79,999	3.0%	0.0%	9.1%	0.0%	2.1%	0.0%	3.4%
Salary \$60,000–\$69,999	4.2%	0.0%	9.1%	20.0%	6.4%	0.0%	5.7%
Salary \$50,000–\$59,999	9.6%	0.0%	14.8%	0.0%	0.0%	0.0%	8.0%
Salary \$40,000–\$49,999	20.4%	1.1%	22.7%	0.0%	14.9%	0.0%	16.5%
Salary \$30,000–\$39,999	21.6%	4.3%	29.5%	30.0%	29.8%	0.0%	20.0%
Salary \$20,000–\$29,999	10.2%	2.2%	13.6%	30.0%	21.3%	0.0%	9.9%
Salary \$10,000–\$19,999	2.4%	3.2%	0.0%	20.0%	6.4%	0.0%	2.7%
Salary less than \$10,000	26.9%	88.2%	0.0%	0.0%	19.1%	100.0%	32.5%
(including volunteers)							
<b>Hourly Wage Employees</b>							
Wages less than \$10/hour	21.9%	75.7%	0.0%	0.0%	3.0%	66.7%	19.9%
Wages \$10–\$15/hour	62.6%	16.2%	59.9%	83.3%	65.2%	16.7%	55.0%
Wages \$16–\$20/hour	12.3%	5.4%	37.0%	6.7%	22.7%	8.3%	20.6%
Wages more than \$20/hr	3.2%	2.7%	3.1%	10.0%	9.1%	8.3%	4.5%

Interestingly, bowling clubs, race tracks and croquet clubs had no workers in the mid-salary range. At the low end of the scale (less than \$30,000) race tracks (50%) and schools (28%) dominated.

For hourly workers, racetracks (10%) and schools (9%) paid the largest percentage of people at the upper-end of the scale (over \$20/hour). Bowling clubs (75%) and croquet clubs (67%) were highly significant at the low end. Golf was also somewhat prominent at 22 percent. Finally, croquet clubs (100%) and bowling clubs (88%) dominated in the utilization of volunteers, and/or those earning less than \$10,000 annually. Again, a fairly substantial percentage (27%) of golf courses also utilizes volunteers.

### Workforce Characteristics

From both an employee and an employer perspective, educational qualifications are a fundamental consideration. An employer strives to ensure that the person hired has the skills necessary to do the job well, has the capacity for additional training as the organization grows or diversifies, and has the enthusiasm and discipline to carry out the job in a professional manner. Typically employees are a firm's most valued and expensive resource. Similarly, an employee is looking for an organization that needs his or her skills, will provide a salary and benefits commensurate with those skills, and has the capacity to offer career advancement as the employee matures and takes on more responsibilities. At its best, an employer-employee relationship should be symbiotic, with each benefiting with the others contributions.

The educational qualifications of employees of organizations interviewed in this survey are presented in Table 13. Two observations are noteworthy: 1) the diversity of qualifications is quite significant and 2) a surprising share (53%) of employees lacks appropriate formal training — in other words, are essentially unskilled. An obvious question is why? Is there a dearth of qualified people in the labour market? Is the sports turf industry unable to attract sufficient numbers of qualified people in spite of an adequate labour market? Or is there some other reason?

Table 13. Educational qualifications of employees in NZ sports turf industry, 2006.

<b>Educational Qualification</b>	<b>Percent Share</b>
Trade Certificate in Golf Course or Sports Fields	7.2%
Certificate in Sports Turf Management (Level 4)	10.2%
National Certificate in Sports Turf (Level 3)	7.7%
National Certificate in Amenity Turf Maintenance (Level 3)	2.4%
Trade Certificate or National Certification in Amenity Horticulture	3.0%
Diploma in Turf Culture	4.0%
University Degree/Diploma (Turf/Horticulture/Agriculture)	2.0%
Overseas Turf Qualification	1.7%
Other Turf Qualification	2.4%
Qualified in unrelated field	6.8%
Unqualified	52.6%
<b>Total</b>	<b>100%</b>

To address this question, respondents were asked if, in general, the work force was adequate to meet current labour needs (Table 14). Three quarters (74.2%) of respondents indicated it was sufficient and one quarter (25.8%) claimed it was not. By any standards, one-of-four organizations facing hiring difficulties is a substantial number, not just for those being impacted, but for the industry as a whole.

Table 14. Adequacy of the work force in the New Zealand sports turf industry, 2006.

<b>Response</b>	<b>Golf</b>	<b>Bowls</b>	<b>Councils</b>	<b>Racing</b>	<b>Schools</b>	<b>Croquet</b>	<b>Total</b>
Yes	65.5%	84.1%	59.3%	58.3%	78.6%	66.7%	74.2%
No	34.5%	15.9%	40.7%	41.7%	21.4%	33.3%	25.8%

A useful analogy might be a manufacturing firm operating at 75 percent capacity, far below a more desirable 85%–90% at which profitable firms would operate. Moreover, labour deficiencies are more acute for some sporting venues than others. Those facing the greatest shortages were race tracks (42%) and councils (41%), followed closely by golf courses (35%) and croquet (33%). These numbers are unacceptably large for organizations competing with other industries over the long term.

To adequately address labour shortages, it is helpful to identify which specific skill areas are lacking. From the listening sessions, four major ones were identified. Survey respondents were asked to rank them on a three-tiered scale (Table 15). Based on these results, the most important need (42 percent) was “unqualified staff with no certification”. An additional 40 percent of respondents felt that they were “needed”. Interestingly, following a close second, 41 percent of respondents stated that “qualified technical staff with Level 4 or higher certification” was “greatly needed”. The third ranked skill area (24%) was “qualified managers with business and technical training”. Finally, over one-fifth (21%) affirmed that “qualified staff with Level 3 certification were needed”. Perhaps more importantly, an additional 64 percent felt this class of worker was “needed”. Opinions on these rankings varied by sector, but there were too few responses across the six sectors to allow a viable comparison. However, results for golf courses were consistent with the above rankings.

Table 15. Critical labour shortages in the New Zealand sports turf industry, 2006.

<b>Labour Skill Area</b>	<b>Percent Share</b>
Qualified managers with business and technical training	
Least Needed	62.2%
Needed	13.5%
Greatly Needed	24.3%
Qualified technical staff with Level 4 or higher certification	
Least Needed	32.4%
Needed	27.0%
Greatly Needed	40.5%
Qualified staff with Level 3 certification	
Least Needed	14.3%
Needed	64.3%
Greatly Needed	21.4%
Unqualified staff with no certification	
Least Needed	17.3%
Needed	40.4%
Greatly Needed	42.3%

In the open-ended portion of the survey, numerous respondents cited business management and administrative training. Additional recommendations include mechanical skills and mower operation, communication and public relation skills for managers, and human resource management.

Responses to why there are labour (and skill) shortages in the sports turf industry are addressed in Table 16. By far the most significant reason (66%) was “low wages and salaries relative to other industries”. An additional 20 percent felt it was “somewhat important”. The second most important reason (39%) was a “lack of advertising and promotion by the industry”, which was followed closely (38%) by “a perception that sports turf lacks career advancement”. Clearly there is a link between advertising and promotion and the perception that it is not a good career choice. At the same time, both of these would also be linked closely with poor pay. A “general tight labour supply” was considered the least important of the reasons provided. Of the roughly twenty open-ended responses, all were consistent with the four presented in Table 16 (i.e., there were no new reasons).

Table 16. Reasons for labour shortages in New Zealand sports turf industry, 2006.

<b>Reason for Labour Shortage</b>	<b>Percent Share</b>
General tight labour supply	
Least Important	27.1
Somewhat Important	43.2
Most Important	29.7
Low wages and salaries relative to other industries	
Least Important	14.6
Somewhat Important	19.5
Most Important	65.9
Perception that sports turf lacks career advancement	
Least Important	25
Somewhat Important	37.5
Most Important	37.5
Lack of advertising and promotion by the industry	
Least Important	30.8
Somewhat Important	30.8
Most Important	38.5

Finally, staff turnover rates are an indication of an employee’s satisfaction with his or her job (Table 17). Interestingly, relatively few (roughly 5%) of either qualified (higher level) or unqualified (lower level) staff left before one year. Moreover, over half in each category stayed longer than five years. Nearly a quarter in each group remained with their organization for longer than 10 years. This suggests two distinct possibilities: 1) Either those who begin working for the sports turf industry ultimately find it satisfying or rewarding, in spite of relatively low pay, or 2) once employed by a firm within the sports turf industry, few options exist outside the organization. Both of these reasons were mentioned frequently during the listening sessions. The first suggests a positive job satisfaction from the outdoor lifestyle and the second a lack of external (horizontal) mobility due to a tight labour market and/or a lack of adequate employee training in a specific area. A third problem area often cited was a lack of (vertical) career advancement within an organization once hired.

Table 17. Average staff tenure for employees in the New Zealand sports turf industry, 2006.

Type of Staff and Turnover Rate	Percent
Qualified	
Less than 1 year	4.0%
1–3 years	15.6%
3–5 years	22.4%
5–10 years	32.7%
longer than 10 years	25.2%
Unqualified	
Less than 1 year	6.5%
1–3 years	21.9%
3–5 years	19.5%
5–10 years	29.6%
longer than 10 years	22.5%

#### Part 4. Industry Training Needs <sup>3</sup>

As noted previously, not only were there perceived skilled and unskilled labour shortages, but there were also shortages in specific areas. Identifying specific skill shortages has important training implications for an industry. However, training programs designed and developed by training providers are pointless without sufficient industry support. One useful measure of support is the level of annual financial investment by an organization. Figure 13 shows results of annual investments in off-job training by organizations in the sports turf industry. As is quite evident, over half (44%) of all firms interviewed invested less than \$500 in training annually. An additional 12 percent invested between \$500 and \$1,000. In other words, over two-thirds of respondents invested under \$1,000 annually in formal training for their employees. Roughly 20 percent invested over \$2,500 annually. Some sports turf sectors invested more than others, but there was not sufficient responses across sectors to adequately determine differences.

In addition to current training needs, respondents were asked about training needs five years into the future (Table 18). For the “greatly needed” plus “needed” categories, the largest percentage (81%) chose unqualified (general purpose) staff. This percentage was about the same as the “current needs” assessment. Aside from unqualified staff, 72 percent of respondents indicated qualified staff with level 3 education, followed by technical staff with level 4 or higher education (56%). Although it was ranked lowest (but at 45% only marginally) many indicated qualified managers with business and technical training were “greatly needed” or “needed”. Note also that some variation exists across sectors. Perhaps the most notable is that both Councils and Race Clubs gave significantly greater emphasis to business and technical training than did other sectors. [Note that in Tables 18–20, the number of respondents (N) is given for each sector. This is provided so that the reader can distinguish between the more reliable higher numbers of observations (e.g., golf, bowls and schools) compared to the less reliable lower numbers (i.e. racing and croquet)].

<sup>3</sup> This section addresses stage 5 of the TEC guidelines to the ITOs.

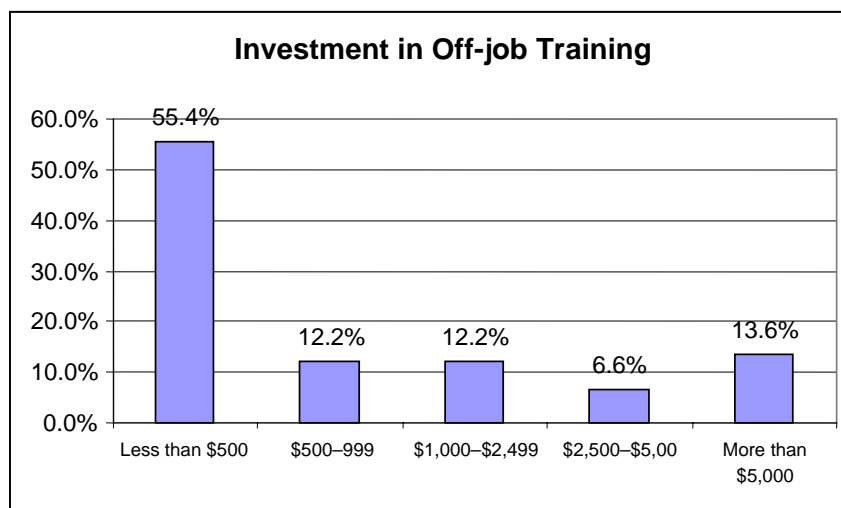


Figure 13. Employer annual investment in off-job training in NZ sports turf industry, 2006.

Table 18. Occupational needs for the New Zealand sports turf industry in the next 5 years.

Occupational Need	Golf	Bowls	Councils	Racing	Schools	Croquet	Total
	N=37	N=30	N=18	N=7	N=31	N=5	N=128
	Percent						
Qualified managers with business and technical training							
Least Needed	59.5	80.0	16.7	28.6	61.5	66.7	54.3
Needed	27.0	13.3	27.8	28.6	30.8	0.0	26.4
Greatly Needed	13.5	6.7	55.6	42.9	7.7	33.3	19.3
Qualified technical staff with Level 4 or higher certification							
Least Needed	31.0	74.1	9.5	25.0	71.4	66.7	43.7
Needed	38.1	25.9	61.9	50.0	23.8	33.3	34.1
Greatly Needed	31.0	0.0	28.6	25.0	4.8	0.0	22.2
Qualified staff with Level 3 certification							
Least Needed	28.6	21.4	13.6	25.0	39.3	33.3	28.3
Needed	50.0	52.4	63.6	50.0	50.0	33.3	51.6
Greatly Needed	21.4	26.2	22.7	25.0	10.7	33.3	20.1
Unqualified (general purpose) staff with no certification							
Least Needed	14.9	13.6	36.8	33.3	19.4	20.0	19.3
Needed	57.4	59.1	36.8	50.0	51.6	60.0	55.0
Greatly Needed	27.7	27.3	26.3	16.7	29.0	20.0	25.7

The quality of current training programs is also important. If industry clients believe that programs offered are not relevant, or that they are poorly taught, training commitment could be adversely affected. Results of five major training issues identified in the listening sessions are presented in Table 19. In general — for “relevancy of programs” (items 1 & 2) and “training quality” (item 3) — golf courses, bowling clubs and councils ranked training consistently high (very good or good). Conversely, racing clubs and schools ranked them low (average or poor) in terms of relevancy. A similar assessment materialized for communication between training providers and industry clients — golf, bowls and councils were generally pleased with communication, racing and schools were not. Finally, the same

trend surfaced with regard to industry financial commitment to training. Interestingly, race tracks and schools indicated they do an average or poor job at training their personnel. So the question arises, would training commitment improve if clients believed training courses were more relevant, of higher quality, and better communication existed between them and training providers? Or are they satisfied with hiring unqualified people and have little interest in training their employees? This latter position appeared to predominate during the listening sessions. [Note that croquet as a sector had too few responses (N=3) to make an accurate industry assessment.]

Table 19. Training quality issues for the New Zealand sports turf industry in 2006.

Training Issue	Golf	Bowls	Councils	Racing	Schools	Croquet	Total
	N=44	N=44	N=24	N=8	N=22	N=3	N=151
Percent							
1. Match between training programs offered and industry demand for specific occupational skills							
Very Good	18.2	22.9	25.0	0.0	5.9	0.0	18.1
Good	56.8	54.3	58.3	14.3	35.3	100.0	51.4
Average	22.7	17.1	12.5	85.7	47.1	0.0	25.0
Poor	2.3	5.7	4.2	0.0	11.8	0.0	5.6
2. Match between skills taught and your own operational needs							
Very Good	26.7	23.8	13.6	0.0	0.0	0.0	15.8
Good	51.1	59.5	45.5	37.5	31.8	66.7	50.6
Average	17.8	14.3	36.4	50.0	59.1	0.0	28.5
Poor	4.4	2.4	4.5	12.5	9.1	33.3	5.1
3. Overall quality of training programs							
Very Good	22.7	29.3	8.7	0.0	6.3	0.0	18.4
Good	54.5	58.5	78.3	20.0	56.3	100.0	59.9
Average	18.2	9.8	13.0	40.0	37.5	0.0	18.4
Poor	4.5	2.4	0.0	40.0	0.0	0.0	3.4
4. Communication between your sector and training providers							
Very Good	18.2	27.3	13.0	0.0	10.0	0.0	16.7
Good	40.9	40.9	47.8	28.6	20.0	50.0	37.8
Average	25.0	18.2	34.8	28.6	40.0	0.0	28.2
Poor	15.9	13.6	4.3	42.9	30.0	50.0	17.3
5. Financial commitment to training by venues in your sector							
Very Good	12.2	20.6	17.4	0.0	6.3	0.0	12.2
Good	36.6	47.1	39.1	28.6	12.5	0.0	35.3
Average	41.5	14.7	39.1	14.3	56.3	50.0	36.0
Poor	9.8	17.3	4.3	57.1	25.0	50.0	16.5

Questions on “barriers for an employee to engage in training” are presented in Table 20. The sixth item (no clear link between training and career advancement) was identified as “very important” by 28 percent of respondents overall. Moreover, half of racetracks and 40 percent of schools identified this as the number one problem. Between 60–80 percent of all sectors indicated it was either important or very important.

“Lack of support” from the company or institution was identified by 26 percent of respondents as “very important,” making it the second ranked training barrier. Some sectors ranked it considerably higher — racing (57%), schools (37%) and councils (32%).

Table 20. Barriers to employee training in the New Zealand sports turf industry in 2006.

Training Issue	Golf	Bowls	Councils	Racing	Schools	Croquet	Total
	N=47	N=40	N=23	N=6	N=31	N=1	N=147
Percent							
1. Insufficient financial reward for the employee							
Not Important	11.4%	12.5%	14.3%	0.0%	22.6%	n/a	15.5%
Slightly Important	13.6%	7.5%	19.0%	42.9%	9.7%	n/a	16.8%
Important	50.0%	50.0%	52.4%	14.3%	38.7%	n/a	44.1%
Very Important	25.0%	30.0%	14.3%	42.9%	29.0%	n/a	23.6%
2. Prohibitive expense							
Not Important	13.0%	15.8%	14.3%	16.7%	10.0%	n/a	14.0%
Slightly Important	23.9%	21.1%	42.9%	16.7%	16.7%	n/a	25.5%
Important	52.2%	39.5%	28.6%	33.3%	40.0%	n/a	40.8%
Very Important	10.9%	23.7%	14.3%	33.3%	33.3%	n/a	19.7%
3. Length of time involved in training							
Not Important	33.3%	17.5%	13.0%	0.0%	9.7%	n/a	17.9%
Slightly Important	24.4%	22.5%	26.1%	40.0%	22.6%	n/a	25.3%
Important	26.7%	42.5%	47.8%	40.0%	51.6%	n/a	39.5%
Very Important	15.6%	17.5%	13.0%	20.0%	16.1%	n/a	17.3%
4. Lack of support from the company or institution							
Not Important	32.6%	21.9%	18.2%	14.3%	13.3%	n/a	21.3%
Slightly Important	28.3%	21.9%	18.2%	14.3%	3.3%	n/a	20.6%
Important	21.7%	37.5%	31.8%	14.3%	46.7%	n/a	32.3%
Very Important	17.4%	18.8%	31.8%	57.1%	36.7%	n/a	25.8%
5. Travel away from home associated with block courses							
Not Important	29.8%	12.5%	30.4%	16.7%	9.7%	n/a	19.5%
Slightly Important	27.7%	17.5%	17.4%	33.3%	9.7%	n/a	20.7%
Important	23.4%	50.0%	34.8%	16.7%	54.8%	n/a	37.8%
Very Important	19.1%	20.0%	17.4%	33.3%	25.8%	n/a	22.0%
6. No clear link between training and career advancement							
Not Important	13.6%	20.6%	0.0%	0.0%	16.7%	n/a	11.8%
Slightly Important	25.0%	17.6%	38.1%	37.5%	6.7%	n/a	23.5%
Important	40.9%	35.3%	33.3%	12.5%	36.7%	n/a	36.6%
Very Important	20.5%	26.5%	28.6%	50.0%	40.0%	n/a	28.1%

One-fourth (24%) of respondents cited “insufficient financial reward” as “very important,” making it the third ranked training issue. Again, racing (43%), bowls (30%) and schools (29%) regarded it as a more severe problem for their industry.

“Travel away from home” was a fourth-ranked issue with 22 percent of respondents identifying it as “very important”. Roughly half of bowls and schools indicated it was an “important” problem, as did 35 percent of councils. “Prohibitive expense” was a fifth ranked problem overall, followed lastly by “length of time involved in training”.

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APPENDIX A



New Zealand Turf Industry Survey and Future Skills Analysis Project

The results of this survey will be used for assessment of the current labor force situation and training needs for the turf industries. This survey is voluntary and respondents are not required to answer any questions that they do not wish to. There is no compensation provided. Thank you very much for participating.

Industry/Organisation/Venue Information

1. Are you an owner/manager of a venue/organisation or do you contract to one or more venues?

- Owner/manager
Contractor (if contractor, skip to question 11 on page 3)

2. What is the approximate total area of your venue/district in either hectares (ha) or square meters (m^2)? (including all turf, gardens, buildings, roadways, etc.)

ha \_\_\_\_\_
m^2 \_\_\_\_\_

3. What is the approximate total area (in hectares or square meters) of maintained turf at your venue/district? (include ALL active and passive turf areas)

ha \_\_\_\_\_
m^2 \_\_\_\_\_

4. What is the approximate area (in hectares or square meters) of synthetic turf at your venue/district?

ha \_\_\_\_\_
m^2 \_\_\_\_\_

5. How many of each of the following sports playing areas are at your venue? (Councils, please disregard facilities leased & maintained independently by clubs, e.g. bowling greens.)

Table with 2 columns of sports playing areas and their respective counts. Items include Bowling greens (synthetic/natural), Croquet lawns, Golf holes, Horse racing & training tracks, Natural turf cricket blocks, Synthetic cricket strips, Synthetic hockey fields, Tennis court complexes, and Winter sports fields.

**6. Property value: Approximate registered valuation of your venue:**

Land value \$ \_\_\_\_\_  
Improvements (e.g. buildings) \$ \_\_\_\_\_  
Capital value (total) \$ \_\_\_\_\_

**7. Equipment value: Approximate market value of all major turf-related equipment:**

\$ \_\_\_\_\_

**8. Annual Operating Budget: What is the annual turf maintenance budget for your venue/district/organisation? (include both sports & amenity turf. Include all categories in Question 9.)**

\$ \_\_\_\_\_

**9. If you have details of expenditures, please indicate the percent of total for each of the following categories (percent total must = 100):**

\_\_\_\_\_ Wages and salaries for staff  
\_\_\_\_\_ Turf contractor fees  
\_\_\_\_\_ Capital expenditures (e.g. drainage, course improvement)  
\_\_\_\_\_ Supplies (i.e. fuel, oil, fertilizer, chemicals, seed, soil, etc.)  
\_\_\_\_\_ Repairs and maintenance (buildings and equipment)  
\_\_\_\_\_ Other  
100% Total

**10. Which turf maintenance operations at your venue are largely or entirely performed by specialist contractors? (Tick all that apply)**

\_\_\_\_\_ All turf maintenance  
\_\_\_\_\_ Fertilizing  
\_\_\_\_\_ Agrichemical applications  
\_\_\_\_\_ Machinery maintenance  
\_\_\_\_\_ Mowing  
\_\_\_\_\_ Physical treatments (e.g. verti-drain)  
\_\_\_\_\_ Renovation  
\_\_\_\_\_ None  
\_\_\_\_\_ Other (please specify): \_\_\_\_\_

**11. How many turf management staff are employed at your organisation?**

Full time (with employment agreement) \_\_\_\_\_  
Part time (with employment agreement) \_\_\_\_\_  
Volunteer (without employment agreement) \_\_\_\_\_  
Contracted staff \_\_\_\_\_

**12. Of the total turf management staff, how many are:**

Male \_\_\_\_\_  
Female \_\_\_\_\_

**13. Of the total turf management staff, how many are in each age range?**

15–21 \_\_\_\_\_  
22–30 \_\_\_\_\_  
31–45 \_\_\_\_\_  
46–60 \_\_\_\_\_  
61+ \_\_\_\_\_

**14. Of the total turf management staff, how many are:**

Maori \_\_\_\_\_  
Pacific Islander \_\_\_\_\_  
European/Pakeha \_\_\_\_\_  
Other \_\_\_\_\_ (Please specify) \_\_\_\_\_  
Other \_\_\_\_\_ (Please specify) \_\_\_\_\_

**15. Of the total turf management staff, how many hold each of the following turf qualifications?**

Trade Certificate in Golf course or Sportsfields \_\_\_\_\_  
National Certificate in Sports Turf Management (Level 4) \_\_\_\_\_  
National Certificate in Sports Turf (Level 3) \_\_\_\_\_  
National Certificate in Amenity Turf Maintenance (Level 3) \_\_\_\_\_  
Trade Cert/National Cert in Amenity Horticulture \_\_\_\_\_  
Diploma in Turf Culture \_\_\_\_\_  
University Degree/Diploma (Turf/Hort/Ag) \_\_\_\_\_  
Overseas Turf Qualification \_\_\_\_\_  
Other Turf Qualification \_\_\_\_\_  
Qualified in unrelated field \_\_\_\_\_  
Unqualified \_\_\_\_\_

**16. How many qualified staff (those with training certification) at your venue fall within each salary range?**

more than \$80,000 \_\_\_\_\_  
 \$70,000–\$79,999 \_\_\_\_\_  
 \$60,000–\$69,999 \_\_\_\_\_  
 \$50,000–\$59,999 \_\_\_\_\_  
 \$40,000–\$49,999 \_\_\_\_\_  
 \$30,000–\$39,999 \_\_\_\_\_  
 \$20,000–\$29,999 \_\_\_\_\_  
 \$10,000–\$19,999 \_\_\_\_\_  
 less than \$10,000 (including volunteers) \_\_\_\_\_

**17. How many unqualified staff (those without training certification) at your venue fall within each wage range?**

less than \$10/hour \_\_\_\_\_  
 \$10–\$15/hour \_\_\_\_\_  
 \$16–\$20/hour \_\_\_\_\_  
 more than \$20/hour \_\_\_\_\_

**18. Staff turnover: Once hired, typically how soon do staff leave?**

	Within 6 months	6–12 months	1–3 years	3–5 years	5–10 years	Longer than 10 years
Qualified (those with training certification)	_____	_____	_____	_____	_____	_____
Unqualified (those without training certification)	_____	_____	_____	_____	_____	_____

**19. Is your work force adequate to meet your current labour needs?**

Yes \_\_\_\_\_ (if yes, skip to question 24, page 5)  
 No \_\_\_\_\_

**20. Where are your most critical labour shortages? (Rank importance. Please rank only once per row.)**

	Least needed	Needed	Greatly needed	Don't know
Qualified managers with business and technical training	_____	_____	_____	_____
Qualified technical staff with Level 4 or higher certification	_____	_____	_____	_____
Qualified staff with Level 3 certification	_____	_____	_____	_____
Unqualified (general purpose) staff with no certification	_____	_____	_____	_____
Other (please specify on the line below)	_____	_____	_____	_____

21. \_\_\_\_\_

**22. Why are there labour shortages? (Rank importance. Please rank only once per row.)**

	Least important	Somewhat important	Most important	Don't know
General tight labour supply	_____	_____	_____	_____
Low wages and salaries relative to other industries	_____	_____	_____	_____
Perception that sports turf lacks career advancement	_____	_____	_____	_____
Lack of advertising and promotion by the industry	_____	_____	_____	_____
Other reasons (Please specify on the line below)	_____	_____	_____	_____
23. _____				

**24. In 5 years, what will be your greatest occupational needs? (Rank importance. Please rank only once per row.)**

	Least needed	Needed	Greatly needed	Don't know
Qualified managers with business and technical training	_____	_____	_____	_____
Qualified technical staff with Level 4 or higher certification	_____	_____	_____	_____
Qualified staff with Level 3 certification	_____	_____	_____	_____
Unqualified (general purpose) staff with no certification	_____	_____	_____	_____
Other (please specify on the line below)	_____	_____	_____	_____
25. _____				

**26. How do you think the size of your workforce will change over the next 5 years?**

\_\_\_\_\_ Less staff      \_\_\_\_\_ More staff      \_\_\_\_\_ No change

**27. Please rate the following:**

	Very good	Good	Average	Poor	Don't know
Match between availability of training programs offered and industry demand for specific occupational skills	_____	_____	_____	_____	_____
Match between skills taught and your own operational needs	_____	_____	_____	_____	_____
Overall quality of training programs	_____	_____	_____	_____	_____
Communication between your sector and training providers	_____	_____	_____	_____	_____
Financial commitment to training by venues in your sector	_____	_____	_____	_____	_____

**28. What other skills need to be taught for now and/or in the future? (Please specify)**

**29. What needs to be done to improve the quality of training programs? (Please specify)**

**30. How much does your organisation invest annually in off-job qualification-based training?**

- Less than \$500
- \$500–\$999
- \$1,000–\$2,499
- \$2,500–\$5,000
- More than \$5,000

**31. Please answer the following:**

	Yes	No	Don't know
Do you think training programs should include written exams?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Should the length of block courses be increased?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Would you be willing to pay more for longer block courses?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Would you be willing to release staff so they could attend longer block courses?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Should training providers make use of electronic delivery?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**32. What are the barriers to engagement in training? (Rank importance. Please rank only once per row.)**

	Not important	Slightly important	Important	Very important	Don't know
Insufficient financial reward for the employee	_____	_____	_____	_____	_____
Prohibitive expense	_____	_____	_____	_____	_____
Length of time involved in training	_____	_____	_____	_____	_____
Lack of support from the company or institution	_____	_____	_____	_____	_____
Travel (away from home) associated with block courses	_____	_____	_____	_____	_____
No clear link between training and career advancement	_____	_____	_____	_____	_____
Other (please specify on the line below)	_____	_____	_____	_____	_____

**33.** \_\_\_\_\_

**34. Where is your venue/organisation located? (Tick all that apply)**

- \_\_\_\_\_ Northland
- \_\_\_\_\_ Auckland
- \_\_\_\_\_ Waikato
- \_\_\_\_\_ Bay of Plenty
- \_\_\_\_\_ Taranaki/Wanganui/Manawatu
- \_\_\_\_\_ Hawkes Bay/East Coast
- \_\_\_\_\_ Wellington/Wairarapa
- \_\_\_\_\_ Nelson/Marlborough/West Coast
- \_\_\_\_\_ Canterbury
- \_\_\_\_\_ Otago/Southland

**35. Which of the following sectors do you primarily associate with or provide services for? (Choose only one)**

- \_\_\_\_\_ Golf      \_\_\_\_\_ Bowls      \_\_\_\_\_ Council (proceed to question 46, page 10)
- \_\_\_\_\_ Racing      \_\_\_\_\_ Cricket      \_\_\_\_\_ Schools (proceed to question 41, page 9)
- \_\_\_\_\_ Croquet      \_\_\_\_\_ Lawncare      \_\_\_\_\_ Other (please specify below)

**36.** \_\_\_\_\_

**All others besides Councils and Schools, please proceed to question 37.**

**37. What percent share of business in your venue comes from International vs NZ clients?**

\_\_\_\_\_ % International clients

\_\_\_\_\_ % New Zealand clients

**38. What are the growth expectations for your sector over the next 5 years?**

\_\_\_\_\_ Strong growth

\_\_\_\_\_ Moderate growth

\_\_\_\_\_ Static growth

\_\_\_\_\_ Negative growth

**39. Identify obstacles to growth for your sector.**

	Least important	Important	Most important	Don't know
Lack of time for people to play sports	_____	_____	_____	_____
Competition from sporting and non-sporting activities	_____	_____	_____	_____
Financial cost associated with playing sports	_____	_____	_____	_____
Small population	_____	_____	_____	_____
Aging population	_____	_____	_____	_____
Growth rate of NZ economy	_____	_____	_____	_____
Other obstacles (Please specify on the line below)	_____	_____	_____	_____

40. \_\_\_\_\_

You are finished! Thank you very much for your participation.

**To avoid the risk of duplication of results, please provide the name and location of your organisation. All information will be kept strictly confidential by staff analyzing the results at the University of Florida. Thank you again.**

**41. How would you characterize your school's student enrollment compared to sports field capacity?**

- Sports field capacity exceeds student use (i.e. spare capacity is available)
- Sports field capacity is adequate
- Student population moderately exceeds sports field capacity
- Student population greatly exceeds sports field capacity

**42. Overall, how would you rate the quality of your sports field facilities?**

- Very good
- Good
- Average
- Poor

**43. In addition to students, to what extent do outside groups (e.g. councils, sports clubs, etc.) use the school's sports fields?**

- Weekly
- Fortnightly
- Monthly
- Seldom or never

**44. In the next 5 years, do you anticipate use of the school's sports fields by outside groups to:**

- Increase a lot
- Increase moderately
- Remain the same
- Decline

**45. What are student enrollment expectations for your school in the next 5 years?**

- Large growth
- Moderate growth
- No growth
- Negative growth

You are finished! Thank you very much for your participation.

**To avoid the risk of duplication of results, please provide the name and location of your organisation. All information will be kept strictly confidential by staff analyzing the results at the University of Florida. Thank you again.**

**46. How would you characterize your council's provision of sports fields for the customers that use them?**

- Sports field capacity is adequate
- Customer demand moderately exceeds sports field capacity
- Customer demand greatly exceeds sports field capacity

**47. Overall, how would you rate the quality of your sports fields in relation to your customer needs?**

- Very good
- Good
- Average
- Poor

**48. In the next 5 years, do you anticipate the demand for the council's sports fields by customers to:**

- Increase a lot
- Increase moderately
- Remain the same
- Decline

You are finished! Thank you very much for your participation.

**To avoid the risk of duplication of results, please provide the name and location of your organisation. All information will be kept strictly confidential by staff analyzing the results at the University of Florida. Thank you again.**

**APPENDIX B**  
**Listening Session Summaries**

**1. Golf Club Managers & Superintendents**

**A. Demand for Sports Turf Amenities**

- Domestic customers comprise 75% of the market, international 25%. One new resort course built each year. Rounds played in 2005 — 6.5 million. Members — 130,000.
- Promising future. Last NZ Open co-sponsored with Europeans and 27 countries participated. The tournament received 500 hours of TV time over 4 days.
- Customers are club members, corporations and business partners.
- Competition — all other activities that consume peoples free time.
- Industry adapting too slowly to changing attitudes — youth want a shorter game and more casual dress; women are increasingly interested but not being adequately catered to.
- Rising course expectations with flat or falling budgets.
- Not acquiring lucrative markets — 50+ age bracket with discretionary income.
- Need to target more junior clients, including international schools.
- Some hotels offering golf packages, which encourages people to stay longer.
- Obstacles to growth include:
  - Lack of communication between national leaders and local clubs.
  - Buddy system promoting people without business or leadership qualifications.
  - Too few clubs run like a business.
  - Competition between family time and work time.
  - Too many clubs with too few members.
  - Clubs that reduce fees to attract new customers.

**B. Labour Skills Assessment**

- Course: Superintendent, assistant super, unskilled labour, part-timers, and apprentices.
- Administration: Club manager, office staff, pro-shop contractors and caterers.
- Demographics — 5 ethnic groups with age ranging from 21–75.
- Labour force not adequate — need more qualified staff, but can't afford it.
- Too many superintendents lacking both technical and management skills.
- Poor pay with few career advancement opportunities.
- Shortage of green keepers — siphoned off to higher paying industries.
- Turf jobs not perceived as professional occupations.
- Inter-club competition — members are owners so keep fees and wages low.
- In future will need:
  - More groundskeepers with level 3 training.
  - Improved technical skills for club managers.
  - Improved business skills for superintendents.
  - More specialists in construction, irrigation, machinery and spray technicians.

**C. Industry Training Issues**

- Training providers losing qualified staff. A succession plan is needed.
- Sports Turf Institute needs better business leadership and direction.
- Green keeper training standards lowered — practical emphasized over theoretical.
- Current training system is adequate. Level 4 provides basic qualifications, but on-job experience still necessary.

- Current on-job moderation systems open for personal bias and subjectivity.
- Exam process is acceptable. More training needed in business management, computers, human resources and accounting.
- Superintendent and club manager communication poor. Conflict occurs from failure to understand each other's responsibilities.
- Communication between training providers and golf industry good.
- Every club knows the ITO, but smaller clubs can't afford training.

## **2. Bowling Clubs**

### **A. Demand for Sports Turf Amenities**

- Interest in bowls began declining 15 years ago.
  - People are too busy & the game takes too long.
  - Perceived as a very slow, old persons game.
  - Most players are over 60 years old.
  - New members not being recruited.
- Recent resurgence — 17 year old won national championship.
- Demand for bowls will continue to decline in future.
- Competition — all other sporting and non-sporting activities
- Most club income is from gaming machine trust grants.

### **B. Labour Skills Assessment**

- Clubs have green keepers, green superintendents and executive committee.
- Volunteers are male, Caucasian and 65+ years of age.
- Few full-time green keepers — most use volunteers or contractors.
- Clubs with full-time positions do not qualify for gaming funds.
- Pay for full-time green keepers very low.
- Lack of qualified staff to meet current needs.
- Use of contractors growing, but lack time to maintain quality.
- Future trends:
  - Number of clubs should decline & membership increase.
  - Contractors will continue to take over greens maintenance.

### **C. Industry Training Issues**

- Level 3 green keeper courses successful — covers theory and practical.
- On-job training inadequate — clubs lack qualified people to provide training.
- Most employees unskilled with no green keeping training.
- Institute
  - Teaches technical & theoretical, not enough practical.
  - Offers advice during field days and bi-annual visits.
  - Most clubs lack funds to pay for additional visits.
  - Apportions time based on funds received from Bowls NZ.
  - Has lost good staff due to low salaries.
- Bowls NZ and clubs must begin paying Institute for services.
- Communication between Institute and Bowls is very good.

- Strategic meeting with NZSTI needed to address training issues.
  - On-job training
    - Currently ineffective with no assessment.
    - Must have measurable standards enforced.
    - Desirable if funding available.
  - Substantial down-time with on-job bowls training.
  - Condense training periods, or combine several sessions into one.

### **3. Sports Fields, Councils, Contractors**

#### **A. Demand for Sports Turf Amenities**

- Stadiums – 60/40 international/domestic teams.
- Councils
  - Customers – sporting associations and leagues.
  - Competitors – other councils, other leisure activities.
- Contractors
  - Customers – council sports fields, schools and bowling clubs.
  - Contractor competitors – other contractors; councils doing own maintenance.
- Future Expectations:
  - Develop more sports fields and raise quality.
  - Convert more property to green space/sports fields.
  - Demand growing but declining as share of population.
  - Population aging and youth engaging in other activities.
- Growth obstacles for contractors:
  - Low funding from Councils.
  - Lack of user fees in certain areas.
  - Short term contracts — difficult to maintain staff.
  - Low tender approach vs. quality service.
  - Councils keeping turf maintenance in-house.
- Growth obstacles for councils:
  - Locating new sports turf fields, esp. in large cities.
  - Reduced physical activity of citizens.
  - Rising maintenance costs yet reduced budgets.
  - Lack of new land in large cities.
- Both Councils and Contractors:
  - Low salary and wages.
  - Low profile of industry as career/investment opportunity.
  - Generation Y shuns labour yet wants high pay.
  - Industry fails to pool resources & achieve common objectives.

#### **B. Labour Skills Assessment**

- Asset managers, turf managers, grounds keepers.
- Most are full time, some part time.
- Higher turnover with lower skilled jobs and larger cities.
- Exceptions are City Parks with good pay, retirement and training.
- Low turnover in remote areas but hard to replace people that leave.
- Few women but trends improving.
- Labor force becoming more ethnically diverse.

- Labour Shortages (Current & Future):
  - Asset managers are good but lack technical skills.
  - Need people with technical, management and communication skills.
  - Shortage of qualified staff due to low pay, unemployment, and contract values.
  - Have not advertised & promoted job opportunities.
  - Should promote internally rather than externally.
  - Need to do better at assessing employee potential.

### **C. Industry Training Issues**

- Training is expensive but necessary.
- Councils and contractors pay for training, but employee commitment essential.
- Training standards are too low (“everyone” passes).
- Difficult to find out trainee progress.
- Must supplement graduates with additional in-house training.
- Current evaluation system not objective with “peers assessing peers”.
- Need assessors independent of the ITO.
- Resolve fact that ITO training expectations differ from industry.
- Some resistance by apprentices to attend training in Palmerston North.
- Communication between contractors and training providers not good.
- Regular meetings needed to discuss mutual issues:
  - What are we doing?
  - Where are we going?
  - Where should we be going?
  - How do we get there?

## **4. Racing Clubs**

### **A. Demand for Sports Turf Amenities**

- Business centres on NZ clients — 20–25% comes from Australia and Asia.
- Past five years — decline in horse numbers, field numbers and owners.
- Next five — a third of clubs will close or amalgamate.
- Industry reorganized into regional authorities to address funds and club closures.
- Larger clubs may partner with councils; smaller ones with sports clubs.
- Volunteers help clubs survive, but those days are ending.
- Management changed from volunteers to business men eager for a profit.
- Income — betting, corporate sponsors, gate fees, food & beverage, in that order.
- Government allotted \$30 million/year over next five years.
  - Many concerned over how funds will be used.
  - Funds are for betting to help owners earn more.
  - Managers struggle to acquire equipment and pay wages.
- Clubs should diversify income and not rely solely on racing.
- Competitors — busy families and clubs failing to attract customers.
- Customers — average kiwi; then corporate clients; owners, trainers, and jockeys.
- Obstacles to growth:
  - Lack of qualified staff and earnings to pay decent wages.
  - Too many clubs with too few resources.

## **B. Labour Skills Assessment**

- Large clubs: CEO, course manager, maintenance workers. Most unskilled and 40+ years.
- Small clubs rely on unskilled workers and volunteers.
- Shortage of qualified and unqualified staff.
- Big clubs turning to contractors, small ones can't afford to.
- CEO's may manage several clubs, but track managers run the operation.
- High youth turnover. Older people more reliable but struggle in bad weather.
- Essential low-paid workers fired rather than reduce CEO's salary.
- Need greater professionalism and better reward staff contributions.

## **C. Industry Training Issues**

- Training in race course turf management excellent.
- Breadth of training useful for jobs outside racing sector.
- Too much red tape, too many trainers and too few trainees.
- Staggered, flexible training to accommodate different schedules.
- Expose trainees to broader range of tracks, in different areas and conditions.
- CEOs lack technical knowledge of course, can lead to poor decisions.
- Major training barrier — people not compensated financially.
- Industry committed to training. Funds directed at training first.

## **5. Schools & Lawncare Contractors**

### **A. Demand for Sports Turf Amenities**

- Schools:
  - Past five years, increased demand for all sports turf activities.
  - Next five — demand for facilities will grow from within and without. Schools will struggle financially.
- Contractors
  - Past 5 years — tremendous growth. Anticipate large increase next five.
  - Customers — landlords, rental property; two income families.
  - Competitors not an issue since labour is in short supply.
  - Obstacles to growth — training employees properly. Educating the public that contractors can do the job better and cheaper than themselves.
  - Obstacles to growth — people who can afford the investment and will work hard.

### **B. Labour Skills Assessment**

- Schools
  - Grounds staff skills vary. Many lack training, but have superb experience.
  - Workers getting older and no younger people coming in.
  - Schools need more qualified workers, better pay and benefits.
  - Volunteers not allowed to work because of Health and Safety issues.
  - Grounds men job mobility constrained horizontally and vertically.
  - Our school has moved to contractors — staffs are young and include 2 women.
  - Poor pay results in high staff turnover.
  - Would prefer contractors but have multi-purpose needs.
- Contractors
  - Quality control managed through intensive two-week course and spot checks. Additional training with Polytechnic and Horticultural Society courses.

- Most have skills unrelated to lawns and gardens. Most are full-time with an average age of 42, generally male with the majority Kiwis or Australians.
- Workforce is not adequate. Staff turnover high initially because the work is hard. If they survive for 12 months we expect them to stay.
- Basic business skills desperately needed — technical skills less important.
- Disagree — growing need for technical competency; health & safety are paramount.

### **C. Industry Training Issues**

- Schools
  - School boards rarely approve training for grounds men.
  - Certification does not translate to better pay.
  - Classroom investment is important, but not physical education.
  - Good communication — aware of Institute training; have used it and would again.
- Contractors
  - No current participants in Institute training.
  - Would like two-part module on technical information and business application.
  - No barriers if trainee can see a tangible benefit (\$) to certification.
  - Grounds men need recognition. Certification from the ITO would provide credibility. Political recognition also important.
  - Quality control — too much time spent monitoring employees' work.

## **6. Training Providers**

### **A. Demand for Sports Turf Amenities**

- Open Polytechnic (OP)
  - Past five years — decline from 2 full-time faculty to one part-time. Block courses eliminated, teaching limited to off-job assessment.
  - Future prospects not good — ITO has limited funds and OP perceived as expensive.
  - ITO is our only customer, which is risky if it redirects business.
- Industry Training Organization (ITO)
  - Sports Turf ITO not a training provider; organises courses and contracts training.
  - Future prospects — NZ growth will be small but stable. International market has major potential if it becomes an Institute objective.
  - Institute responsible for delivering courses and on-job training appraisals. But many organizations have no assessment support due to limited funds.
  - Major customers are golf courses, contractors, bowling clubs and schools.
  - Major competitors are other primary training groups.
- Otago Polytechnic (Otago)
  - Otago averages training 15 students over a two-year programme.
  - The next 5 years? Hope to double student numbers, but that may not happen.
  - Major customers are school leavers and re-trainers.
- Obstacles to Growth:
  - OP: First, market saturation because of its small size. Second, low employee wages. Third, time & distance to Palmerston North for training. Fourth, trainee assessment when qualified managers not available. Outside assessors then brought in, which takes time and is expensive.
  - Otago: Job market and pay rates. Superintendents leave from stress, lack of staff and budgets, better offers elsewhere and lack of recognition as a credible profession.

- Sports Turf Institute (STI): Councils under pressure to reduce budgets while funding competing services. As a result, contractors bid competitively for jobs which reduces service quality and limits funds contractors have for training.
- Threat to Training Providers:
  - OP: Salaries less than cost of living, so good people leave. Replacements hard to find since ITO wants people with turf & educational qualifications.
  - ITO: The risk of losing qualified ITO staff.
  - Otago: A teacher/student ratio falling below minimum of 1:10, which it has.

## **B. Labour Skills Assessment**

- ITO: Need improved management skills and more workers up-skilled. Promote training both internally (industry channels) and externally (to outsiders).
- STI: More ethnic diversity, much older workforce, few young replacements.
- Otago: Smaller organizations reluctant to train. Don't understand unit standards and concerned about on-job assessment. ITO needs to explain the system better.
- Future:
  - STI: Skill gaps filled by overseas people, fewer golf courses and superintendents. Growing disparity between higher-end clubs and smaller ones with little to offer young employees.
  - Otago: Increased labour demand with tight supply. More ethnically diverse labour.
  - STI: More women in asset management and supervising contractors.

## **C. Industry Training Issues**

- STI: Unit standard subjects not linked. Students lack understanding how skills are linked. More business courses. Improved ability to differentiate quality among graduates. Mentoring programs in business to enhance problem solving tools.
- ITO: Fill training gaps in human resources, management and budgeting.
- OP: Differentiate training potential of students prior to acceptance. Besides golf, greater commitment to training by other sectors.
- STI: Urban areas committed to training, but not rural, probably due to affordability. Message on value of training not communicated adequately.
- Barriers to engage in training:
  - ITO: Many poor quality students enter turf programs as last resort. Enormous resources invested in getting students to completion.
  - OP: Completion issue is huge because it determines what is taught. Now receive government funds regardless if student finishes — about 25% do not. In future, funding may be contingent on completion. Improved screening by ITO and linking reimbursement to completion.
  - Otago: Too much emphasis on 2-year program; not enough on practical application.
  - ITO: Training helps retain staff if compensated financially; industry does not invest adequately in off-job qualification-based training.