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Report to:

Sport New Zealand, NZRA and Skills Active

SPORT AND RECREATION SECTOR WORKFORCE TO 2026

Prepared by

Dr Ganesh Nana

Kel Sanderson

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Business and Economic Research Limited, BERL House, 108 The Terrace, PO Box 10277, Wellington 6143, New Zealand

T: 04 931 9200 F: 04 932 9202 info@berl.co.nz www.berl.co.nz

Foreword

We are pleased to present this report on the future outlook for the sport and recreation workforce in New Zealand until 2026. Commissioning such a report is a clear indication that the sport and recreation industry has reached a level of maturity- a coming of age!

Many of us have ended up in our roles by virtue of following our passions for our chosen pursuits and progressed into management, administration or coaching positions by chance rather than by design. The Value of Sport research published in 2011 clearly showed the enormous monetary contribution that our sector makes to the New Zealand economy and to the wellbeing of our society. Many of us have recognised that in order to sustain the sport and recreation industry, so that it can continue to offer this value and grow the contribution to New Zealand, we can no longer leave these career pathways to chance. Instead, we must predict trends and plan for our future. Ensuring the development of a skilled, competent and qualified workforce – paid or voluntary – is the most important component to ensure this success.

BERL has provided an excellent stocktake of the current paid roles within our industry, along with predictions for growth in those roles over the next 15 years. We acknowledge that further work is needed to understand the volunteer workforce. Based on their findings BERL has identified a range of issues that will be real challenges for our sectors in ensuring skilled staff are available to fill the roles we need to continue to offer our services to sport and recreation. The summary in this report clearly challenges us as an industry to first, acknowledge that a problem exists, and then to be proactive in responding - through workforce planning.

The fact that this report is a collaborative effort of three agencies that have come together around this perceived need is both exciting and a signal to how we need to work into the future. Cooperation and the sharing of knowledge are the best ways for us to use our combined resources to respond to the changing world we are in.

We invite you to read the findings in this report and consider what can be done locally, regionally and nationally to plan for a skilled and vibrant workforce to drive the sport and recreation industry forward in the coming years.

Peter Miskimmin	Grant Davidson	Andrew Leslie
CE Sport New Zealand	CE Skills Active	CE New Zealand Recreation Association

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1 Executive summary

This paper reports on a study on the workforce of the Sport and Recreation sector covering its current size and composition, issues, and influences impacting on its development, and projections for the workforce over the coming 5, 10 and 15 years. Consequences and findings arising from this study for the development of a sector workforce development plan are highlighted.

The purpose of this study is to provide the required data and information base, as well as an assessment of challenges and opportunities facing the sector, and so form the building blocks for a workforce development plan.

The Sport and Recreation sector is a complex sector, comprising a range of public, private, and not-for-profit organisations that provide goods, services, infrastructure, funding, and/or training. This complexity is mirrored in its workforce, with people being employed over a diverse range of occupations.

In particular, almost 62,000 people were employed in the sector in 2010. Of this total, nearly 21,000 were in technical functions, such as coaches, or instructors; sportspeople; sports officials; and greenkeepers and turf growers. In addition, just under 5,200 were in manager functions, such as chief executive, managing director, corporate general manager, and sports centre manager. The largest group, though, were the 35,750 in support functions, including general clerks, general receptionists, commercial cleaners, and sales assistants.

The Sport and Recreation workforce is more male-dominated, relatively younger, slightly more qualified, and is skewed to those of European ethnicity, when compared with the total New Zealand workforce.

1.1 Issues and influences

The sector and its constituent workforce face a challenging future. The changing nature of demand for sport and recreation services, accompanied by ongoing technological developments, is set to feature amongst the challenges. Furthermore, ethnicity and age trends across New Zealand society will influence not only the composition of demand for Sport and Recreation services, but also potential new entrants to the sector's workforce.

Underlying these influences are funding considerations. These considerations could both constrain the sector's response to external factors and accelerate the need for changes towards a new funding model. These could well presage a move towards a more customer-facing, or business-like, model for sport and recreation organisations. Arguably, funding

constraints may force such a move, or organisations may proactively choose to move in such a direction.

Some of the influences and challenges facing the sector include:

- roles and functions of volunteers in the sector's activities
- competition for workforce from other sectors and from other countries
- clarifying and promoting workforce career paths within the sector
- structures within, and organisation of, the sector
- relationships between the sector and associated operators (e.g. tourism providers, as well as potential investment and service provider partners).

The overriding influence facing sectors in their development of a workforce for the coming decade (and beyond) remains intense competition for labour with the necessary capabilities and competencies. In the New Zealand context, the changing demographics (both ethnic and age) of the workforce are set to be accentuated by large migrant inflows and outflows. Competition for labour is likely to be more intense in the support and manager functions where skills and capabilities are readily transferable.

Remuneration within the not-for-profit sub-sectors of the Sport and Recreation sector may not be as competitive as elsewhere. However, the comparison with other not-for-profit sectors is more favourable. There are also other non-remuneration (or intrinsic) features attracting workers to the Sport and Recreation sector. The question remains though, as to how relevant these intrinsic features are for those with more transferable skills in the manager and support functions.

Explicit identification of career paths goes hand-in-hand with explicit descriptions of the abilities and competencies required in the various roles. In turn, this provides a link to the Targeted Review of Qualifications.

One component of the workforce challenges facing the sector is the use of volunteers. The pool of volunteers could dwindle as other sectors (e.g. health, care services) call for more assistance, although the increasing number of retirees could see more seeking voluntary opportunities.

The sector is well placed in terms of its existing structures and networks, which means that the sector is not starting from square one in terms of an ability to tackle sector-wide challenges.

Nevertheless, the Sport and Recreation sector is a complex facet of the New Zealand economy, with a diverse set of stakeholders – ranging from funders; goods producers; service deliverers; training establishments and organisations; infrastructure providers; in the private, public, and not-for-profit sectors. Forming a sector-wide response (should that be the sector's wish) to broad and potentially overwhelming challenges requires both a sense of cohesion and leadership.

1.2 Projections and potential requirements

Projections for employment to 2026 in the Sport and Recreation sector were generated using an economic model of the New Zealand economy. The modelling technique adopted conservative assumptions as to the short- to medium-term progress of the global and the New Zealand economy.

The business-as-usual (BAU) scenario sees modest growth over the immediate short term in line with constraints on government and domestic household consumption spending. This translates to a lower rate of job growth in the Sport and Recreation sector than that in the wider economy over the period to 2016. However, in line with the assumed recovery in the global economy, the medium- to longer-term period to 2026 sees employment in the sector close to the economy's overall average.

In particular, employment in the sector grows by more than 10,200, from approximately 62,000 in 2010 to just under 72,000 in 2026.

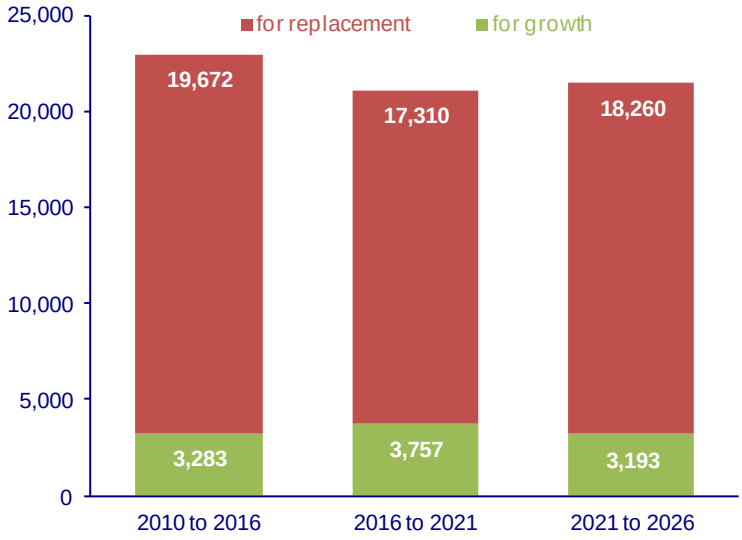
As is the case in 2010, the largest group of the sector's workforce over the BAU future horizon are in non-manager support functions. This group accounts for by far the majority of the increase in employment. This reflects the relative difficulty in transferring skills in such support positions in the sector. Conversely, the relatively lower growth in technical positions in the short term suggests that technical positions are relatively more 'discretionary' over the short term.

1.2.1 Potential workforce requirements

In addition to the increase in the sector's workforce resulting from the above growth, there is a need to replace staff that retire or otherwise exit the workforce of the sector. Assuming a moderate rate of exits (ranging from 3 percent per annum for many categories in the technical workforce to 7.5 percent per annum for some finance and other support functions) results in additional requirements in the BAU scenario as depicted in Figure 1.1.

The more than 10,200 increase noted above is depicted as the green-shaded areas in each of the bars. It is clear that the additional workforce required for growth in the BAU scenario is overwhelmed by the additional numbers required for replacement purposes.

Figure 1.1 Sport and Recreation sector additional BAU workforce requirements



For example, over the 2016 to 2021 period, total job numbers in the sector rise by nearly 3,760. However, over the same period, a further 17,300 people are required to replace those who exit the sector. Adopting an assumption of a lower rate of workforce exits from the sector reduces the 17,300 figure to just over 11,950. Despite this reduction in exits, requirements for replacement are still more than three times the requirements for growth.

1.2.2 An alternative scenario

An alternative scenario, which attempts to capture some proactive responses by sector organisations to external influences, was also generated. This alternative scenario explicitly incorporates:

- the impacts of new sports types and markets driven by sport demand changes from behaviour, participation, and demographic changes
- a shift towards a more business-like orientation by some organisations
- the development of new infrastructure investments focussed on Auckland and Christchurch.

This alternative scenario sees employment grow by nearly 11,000 from 2010 levels to reach over 72,700 in 2026. In this case, workforce requirements for growth over the 2016 to 2021 period total 4,000 people, with a further 17,400 required for replacements.

These results reinforce the dominating influence of replacement requirements when projecting workforce needs for the sector.

Our modelling also reinforces the importance of funding constraints. The BAU scenario assumes that public sector per-capita funding is maintained in real terms at current (2010) levels. Scenarios have been modelled where public sector funding for the sector is increased (or decreased) by the order of 2 percent or more compared with this BAU level. These scenarios show that the impacts of these public sector funding changes outweigh the impacts on the workforce of other market, demographic, or regional influences on the sector.

1.3 Workforce planning and next steps

- Any workforce plan should address how to maximise retaining the existing workforce, as well as attracting new people.
    - This need is reinforced by our findings about the overwhelming importance of replacements. While the sector has been relatively successful in past years in recruiting and retaining staff, a diverse and increasingly mobile labour force – along with heightened competition from a range of sources – will make this task even more challenging in years to come.
    - This could be eased where a sector-wide approach is taken – career paths can be mapped, exploiting the breadth of the sector and the opportunities inherent therein.

- A proactive strategic approach to the development of the Sport and Recreation sector workforce is needed; given the challenges, opportunities, and changes that lie ahead.
    - There are a myriad of challenges, including: the use of voluntary workers; the business environment; market demand; the role of the public sector; funding constraints and alternative funding sources; a diverse range of stakeholders; and the ethnic composition of the workforce; as well as the sheer quantum of replacements required.

- The range of challenges facing the Sport and Recreation sector could be seen as daunting.
    - Many, if not most, of these changes lie outside the control of the sector and its organisations.
    - The response of the sector to these influences will be central in determining the shape of the sector in the future. A reactive stance from individual organisations in the sector is an alternative to a proactive approach. But, this is likely to lead to ad hoc responses and leave the sector even more vulnerable to external pressures.

- There is potential for change not only in the nature and composition of the sector's workforce but also in the way in which the sector delivers its services and, perhaps, the services it delivers.
    - These changes are likely to be rapid. Their consequences, or the way the sector responds, could be imposed by external factors and/or they could be proactively managed by the sector.
- Nevertheless, the context is one of a growing sector, increasing in size in both employment and value to the broader economy.

1.3.1 Next steps

Consequently, next steps could comprise

- understanding the role of the volunteer workforce and its relationship to the paid workforce
- further engagement with the sector (including associated players, such as, for example, education, training, and tourism providers) to agree the role, scope, and responsibilities of individual organisations, as well as the sector, in the development and implementation of a workforce plan.

Above all, clear priorities and processes need to be agreed and pursued by the sector's leadership.

This will enable the sector to be better positioned to proactively respond to the ever-changing demands from New Zealand society for sport and recreation services.

2 Introduction

This report has been prepared by BERL for Sport New Zealand, Skills Active, and the New Zealand Recreation Association (NZRA).

2.1 Purpose of report

Firstly, this report records the size, functions, and characteristics of the current Sport and Recreation sector workforce. The report also integrates information from discussions and interviews with sector stakeholders on influences likely to shape the sector over the medium term.

Secondly, this report summarises the results of an economic modelling exercise projecting the size and composition of the sector's workforce over the coming 15 years.

The findings from this process will assist in the development of an informed, evidence-based draft workforce plan for the sector.

2.2 Context

The Sport and Recreation sector is made up a range of public, not-for-profit, and private organisations that work at a local, regional, and national level. In summary, Sport New Zealand is the national agency for Sport and Recreation and leads, enables, and invests in the country's single sport system (Sport New Zealand is the trading name of Sport and Recreation New Zealand). High Performance Sport New Zealand (HPSNZ) is a fully owned subsidiary of Sport New Zealand, responsible for supporting elite athletes and developing a network of world-class facilities. The New Zealand Olympic Committee is also responsible for supporting elite athletes at Olympic, Commonwealth, and Youth Games.

Sport New Zealand and HPSNZ work in partnership with national sport organisations (NSOs), national recreation organisations (NROs), and regional sports trusts (RSTs) to achieve their strategic goals. The national organisations work with, and support, local councils and regional sport organisations (RSOs), whose role is to facilitate and enable Sport and Recreation systems and services. Local councils are also substantial investors in Sport and Recreation facilities and services, along with community and gaming trusts. Sport and recreation services are delivered to participants by clubs, communities, schools, event organisers, and Sport and Recreation facilities.

The New Zealand Recreation Association (NZRA) advocates for and promotes recreation in New Zealand. NZRA has established strong regional structures fostering professional growth and development through training programmes and networking. NZRA has over

1,400 individual members. Members own and/or operate Sport and Recreation facilities like swimming pools, playgrounds, skate parks, botanic gardens, sports fields, sport and events centres, recreation centres, open spaces, including parks and forests, national and regional parks, harbours, beaches, rivers, and lakes (for recreation use). Many members facilitate community recreation through the delivery of programmes and events.

As well as the public and not-for-profit sectors, the private sector plays a key role in developing and delivering Sport and Recreation opportunities.

Industry Training Organisations (ITOs) are the entities in New Zealand who are mandated by legislation to set skills standards and qualifications for various industries. They also arrange training and assessment of National Qualifications for those in employment, or volunteers in employment like situations, in those industries. Skills Active is the ITO for the sport, fitness and recreation sectors. The Primary ITO has coverage for the Sports Turf Industry formerly managed by the Sports Turf ITO. The role of ITOs is to help ensure that the workforce in any industry has pathways for upskilling and qualifying workers to raise the productivity for businesses and organisations in New Zealand.

2.3 Report structure and limitations

This report is structured as follows.

An outline summary of the current workforce in the Sport and Recreation sector, along with an overview of influences likely to shape the sector, is provided in section 3. More detailed data on the current workforce and discussion of influences and challenges is contained in a separate report *New Zealand Sport and Recreation Sector Workforce Estimates – A Situation Analysis*.

Projections of the sector's workforce for a business-as-usual (BAU) scenario to 2026 are presented in section 4, with figures for an alternative scenario provided in section 5. Further details of the modelling exercise, along with results for a range of additional scenarios, are provided in a separate technical appendix.

Leading on from this analysis, section 6 distils a framework with a view to the next steps in the development of a Workforce Plan for the sector.

2.3.1 Limitations of data and analysis

The 2006 Census (the latest census data available) provides a rich and detailed source of data to identify people working in the Sport and Recreation sector.[1] Despite the richness and comprehensiveness of this data, there are several limitations.

- The census records employment at only one point of the year (i.e. March), so does not capture seasonal employment information.
- The census only asks for information about the job that people worked most hours in. This means that people who work part-time and have more than one job record only one of those jobs.
- Using census data assumes that individuals have correctly described their employment function and activity in their completed census survey form. Errors arise if the individual has completed the form incorrectly or their response was incomplete or unclear.
- The lack of census information more recent than 2006 is a clear limitation for our analysis. We have used other data sources and methods to estimate more up-to-date information, but a more recent census dataset would have been preferable.

Difficulties in precisely defining the sector in terms of the industries and occupations included in Sport and Recreation also result in limitations to the research. The industry and occupation categories included within the sector were chosen by BERL in consultation with Sport New Zealand, Skills Active, and NZRA. However, these categories are limited by the distinctions and levels of disaggregation available within the official industry and occupation classifications adopted by Statistics New Zealand.

Given the nature of this process and the data available, the information at the detailed sub-sector level is less accurate than that at the broader headline level. Consequently, the figures presented in this report are better interpreted as estimates, as opposed to precise counts.

We are aware of other data sources providing information on some components of the sector. For example, in Skills Active's Sector Strategic Training Plan 2011–2015, there is a sector profile on the New Zealand Snow Sports Industry showing the number of people that work in ski areas and snow sport retail shops, the occupations these people hold, and characteristics such as gender, qualifications, and ethnicity. Although current, it would be a large task to update the census data using this type of information. Moreover, not all

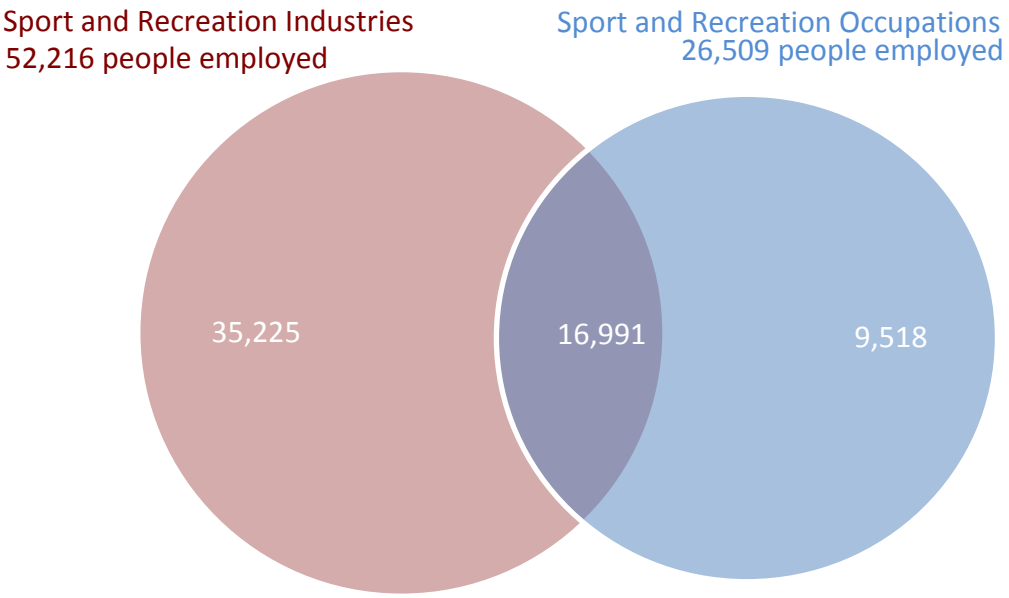
[1] The 2006 Census form (Individual form) can be accessed here: http://www.stats.govt.nz/Census/about-2006-census/2006-census-questionnaires.aspx

industries within the sector have up-to-date, detailed information on their employment and so the figures could not be adjusted through such a method.

3 The situation now

An estimated 61,734 people were employed in the Sport and Recreation sector in 2010. Figure 3.1 illustrates the number of people employed in Sport and Recreation industries and the number of people employed in Sport and Recreation occupations.[2]

Figure 3.1 Employment in Sport and Recreation, 2010



Total employed in Sport and Recreation = 61,734

Note numbers may not add precisely to totals stated due to rounding

Illustrative figure only
Not drawn to scale

- 52,216 people were employed in Sport and Recreation industries in 2010.[3] These industries include sports and physical recreation venues; grounds and facilities operation; sports and physical recreation clubs; and sports professionals.
- 26,509 people were employed in Sport and Recreation occupations in 2010. The largest occupations were greenkeeper, fitness instructor, and sports coach or instructor.

[2] 'Industries' refer to (and describe) the organisation or business that a person is employed in; while 'occupations' refer to (and describe) the type of job (role or function) a person is employed in. For example, a coach of a netball team would be described as being employed in the 'sports' industry, with 'netball team coach' being their occupation.

[3] Throughout this report, all figures for 2010 (including the note 'BERL estimate') have been derived by BERL based in the main on Statistics New Zealand 2006 Census data updated using a variety of sources, including Business Demographic Survey data and industry stakeholder interviews. Numbers in tables and figures may not add precisely to the totals stated due to rounding.

- Within the 52,216 people employed in Sport and Recreation industries, 35,225 people were employed in occupations not identified as Sport and Recreation occupations. The largest of these occupations were general clerks, receptionists, and commercial cleaners.

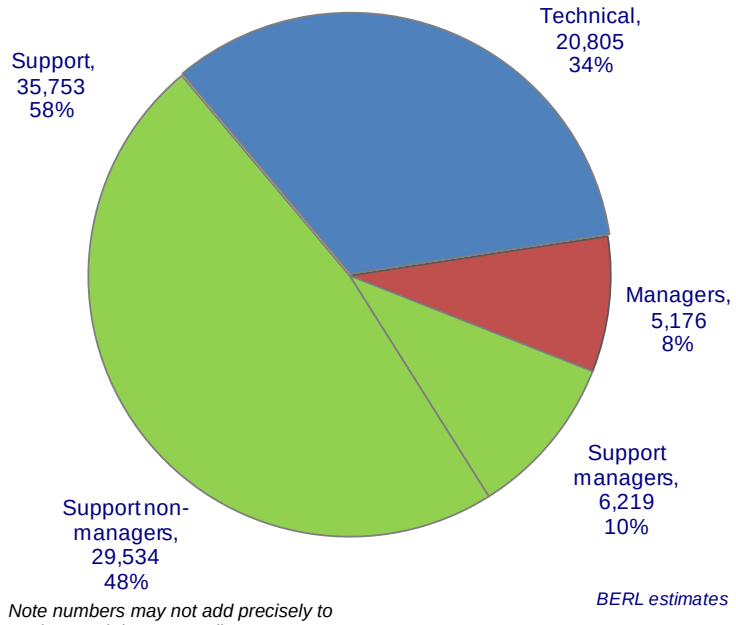
- Within the 26,509 people employed in Sport and Recreation occupations, 9,518 people were employed in industries not identified as Sport and Recreation industries. The largest industry in this group was the education industry.

- The overlap shows 16,991 people employed in Sport and Recreation industries and Sport and Recreation occupations.

3.1 Composition of workforce

Grouping the workforce by functions, rather than industries or occupations, leads to a different perspective. In particular, Figure 3.2 illustrates the estimated 2010 Sport and Recreation workforce as: 20,805 in technical functions, 5,176 in manager functions, and 35,753 in support functions.

Figure 3.2 Employment in Sport and Recreation, by function, 2010



Note numbers may not add precisely to totals stated due to rounding

3.1.1 Technical workforce

- The technical workforce of the Sport and Recreation sector can be grouped into key areas of employment. These include instructors or coaches; guides; sportspeople; sports

officials; greenkeepers and turf growers; boat building, repairs, and sail making; and 'other' roles.

The largest area of employment in the technical workforce in 2010 was people employed as instructors or coaches. People employed in this area of the technical workforce provide coaching or instruction across a wide range of activities, such as dancing, diving, horse riding, gymnastics, snow sports, swimming, and tennis. Of the 8,785 people employed in this area, 2,890 people were employed as fitness instructors and 2,109 were employed as 'other' sports coaches or instructors.

'Other' is also a large area of employment in the technical workforce, with 4,902 people across a wide range of occupations. This area includes lifeguards, (1,412 people employed in this occupation in 2010), physiotherapists (1,521), horse breeders (459), and recreation coordinators (340).

Greenkeepers and turf growers are the third largest area of employment in the technical workforce, employing 3,963 people.

3.1.2 Manager workforce

- People employed in the manager workforce are in occupations that plan, organise, direct, or control an organisation at a managerial level.

The manager function comprises a small proportion (8 percent) of the Sport and Recreation sector's total workforce. The principal occupations are chief executive, general manager, and sports administrator, each totalling more than 1,000 individuals. The conference and event organiser occupation is next largest, at just under 1,000 people.

3.1.3 Support workforce

- The largest occupations within the support workforce are general clerks, receptionists, commercial cleaners, and personal assistants. Other occupations include, for example, ticket sellers, dietitians, and photographers.

Those in support functions comprise the majority (58 percent) of the Sport and Recreation sector's total workforce. However, these support functions are many and varied, and the people in these functions possess disparate characteristics.

Most of the support functions are occupations that are not specific to Sport and Recreation. In 2010, 34,899 people were employed in these occupations, and the five largest

occupations were general clerks, general receptionists, commercial cleaners, sales representatives n.e.c.,[4] and general sales assistants. The top 40 largest occupations in the non sport-specific workforce employed 18,257 people. A further 16,641 people were employed in non sport-specific support occupations across 593 different categories.

Some support functions are occupations that are more specific to Sport and Recreation. In 2010, 854 people were employed in these occupations and the five largest occupations were ticket sellers, massage therapists, dietitians, technicians and trades workers such as kayak or surfboard makers, and sports photographers.

3.2 Demographics of the workforce

The Sport and Recreation workforce is more male-dominated, relatively younger, and slightly more qualified than the total New Zealand workforce.

- 55 percent of the Sport and Recreation workforce is male; 52 percent of the total New Zealand workforce is male.
- 30 percent of the sector's workforce is between 45 and 64 years old; 37 percent of the total New Zealand workforce is in this age group. 20 percent of the sector's workforce is between 15 and 24 years old; 16 percent of the total New Zealand workforce is in this age group.
- 52 percent of the sector's workforce has a Level 1 to 4 qualification as their highest qualification, while 36 percent has qualifications at Level 5 and above. The figures for the total New Zealand workforce are, respectively, 49 percent and 33 percent.

Observations from the 2006 Census data suggest 73 percent of the 2006 Sport and Recreation workforce said they were of European ethnicity, 14 percent reported New Zealander ethnicity, and 8 percent Māori ethnicity.[5] The proportions for the total New Zealand workforce were, respectively, 69 percent, 13 percent and 11 percent.

3.2.1 Technical workforce demographics

The technical workforce is predominantly male, having a higher percentage of males than the total Sport and Recreation workforce. In addition, this workforce is noticeably younger than the total Sport and Recreation workforce, bearing in mind that the sector's workforce is, in turn, relatively younger than New Zealand's overall workforce. The technical workforce is also dominated by people who have Level 1 to 4 qualifications as their highest qualification.

[4] Not elsewhere classified.

[5] Note that people can identify with more than one ethnicity when answering this question in the census.

Within the technical workforce, the main exceptions to these observations are physiotherapists and fitness instructors, which are predominantly female occupations. Physiotherapists are also the exception in that there is a significantly large proportion with Level 7 or higher qualifications. Greenkeepers are also relatively older than the rest of the technical workforce.

3.2.2 Manager workforce demographics

Those employed in manager functions are predominantly male and are relatively older than the total Sport and Recreation workforce. A larger proportion (than the overall sector's workforce) of the manager workforce possess Level 5 to 7 qualifications, and higher.

However, an exception to this generalisation for managers is the occupation of chief executive. Sport and Recreation sector chief executives are much older than the total Sport and Recreation manager workforce. In addition, the proportion of Sport and Recreation sector chief executives with no qualifications is larger than for the Sport and Recreation manager workforce.

3.2.3 Support workforce demographics

The overall support workforce has age and qualification profiles that are similar to those for the total sector's workforce. The proportion of 52 percent male in these support functions is similar to the proportion for the total New Zealand workforce, but is below the 55 percent average for the Sport and Recreation sector. However, females outnumber males in each of the top five occupations[6] in the support workforce.

3.3 Regional dimension

Using 2006 Census information, Figure 3.3 illustrates the regional breakdown of the three functions of the Sport and Recreation workforce. As a comparator we have also included the New Zealand average in this figure.

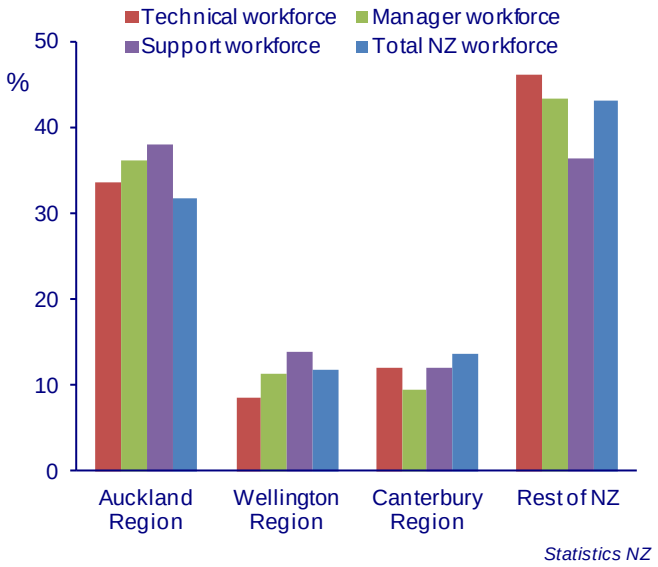
A third of the Sport and Recreation workforce worked in the Auckland region, with 38 percent of the support workforce employed in this region. A similar pattern is observed in the Wellington region, with more people employed in the support workforce and relatively fewer technical workers.

In the Canterbury region, employment is evenly distributed between the support and technical workforce, with relatively fewer people employed in the manager workforce.

[6] Refer section 3.1.3.

Outside these three regions, the Sport and Recreation workforce consists of relatively more technical workers, and relatively fewer support workers.

Figure 3.3 Sport and Recreation workforce, by region, 2006



Statistics NZ

3.4 Influences

A comprehensive coverage of all the likely influences facing the Sport and Recreation sector is well beyond the scope of this project. However, capturing the critical and primary influences was necessary to inform the subsequent modelling exercise. In particular, assumptions to generate scenarios for the development of the Sport and Recreation sector required an informed identification and assessment of critical influences.

Indeed, there were consistent themes arising from the many views and issues raised during discussions with sector stakeholders and in responses to an online survey. These themes and other influences identified by the project team are outlined below.

- Funding and operations environment

Issues associated with funding, the ability to raise funds, and securing new sources of funds are all expected to heighten the pressures facing organisations in the sector. The need to understand and adapt organisations' business and operations models to the expected economic environment was seen as critical.

- Government, regulation, and legislation

Influences from government – both central and local – formed another group of themes. Included in the term 'government' are influences in addition to regulation and legislation.

The largest influence noted here arose from potential changes to local government functions. In particular, aspects of funding, as well as the provision of facilities and the broader role of government in Sport and Recreation activities, arose as expected influences. Further influences related to the health and safety environment also arose, with many discussants expecting safety and compliance regulations for sport and physical recreation activities to become increasingly stringent.

- Salary and career development

Comments about salary and career development referred to the need to compete with other sectors and other countries for people with the required skills and capabilities. Stakeholders were not optimistic about being able to compete successfully here, consistent with their concerns mentioned earlier about securing funds in general. It was noted, though, that salaries were relatively competitive when comparing those in not-for-profit Sport and Recreation organisations with non-sport not-for-profit organisations. BERL also notes that workforce turnover did not arise as a pressing issue. This may reflect the intrinsic motivation to 'work in the Sport and Recreation sector' that some interviewees mentioned.

- Demographic and behaviour changes

Various demographic and consumer behaviour changes were noted in our interviews and discussions. Some in the sector were concerned about potentially declining sport participation rates. The drift towards individual sport and away from team or organised sport was also noted as likely to have an impact on the composition of the workforce in the future. The changing age profile of the population is also a potential influence on consumer demand for Sport and Recreation sector services and products. The age dimension will also have implications on workforce supply. However, the influence of age did not feature prominently during discussions.

- Global labour mobility and ethnicity

We expect the increased global mobility of labour to see the available New Zealand workforce diversify. This will arise as a result of the growing number and proportion of people migrating (both inwards and outwards). The balance in the migration flows in the Sport and Recreation sector-specific skills and capabilities required is, we would argue, likely to be an important factor in shaping the future of the sector.

In particular, the growing attractiveness of employment opportunities in Australia will increase the mobility of labour (and families) across the Tasman. More so-called 'commuter'

employment is possible, as the ease, frequency, and cost of trans-Tasman travel becomes more favourable to repeated visits.

Furthermore, the proportion of people of Asian and Pacific ethnicity in the New Zealand workforce will inevitably increase. In addition, the demographics of the Māori population will also lead to an increase in the proportion of Māori in the workforce. The extent to which this increased diversity will be reflected in the Sport and Recreation workforce of the future remains unclear. The implications of this composition for workforce recruitment, retention, and training will no doubt be discussed in the drafting of the Workforce Plan.

- The regional dimension

The regional dimension was not covered during discussions as this study focuses on the sector as a whole. Nevertheless, the regional dimension will need to be considered during the development of the draft Workforce Plan. We would argue that, over the next 10 years (at least), the regional dimension of the New Zealand labour market will be dominated by activity surrounding the reconstruction efforts in Christchurch. In addition, continuing population growth in Auckland, along with additional physical investment (e.g. transport and facilities infrastructure), is likely to significantly influence the regional dimension of the New Zealand labour market.

- Technological and other developments

Global developments in Sport and Recreation are many and varied. For example, the influence of technology is increasing opportunities to transmit and display sports to a wide audience. This potentially increases the consumer market, as well as participation. Furthermore, these opportunities are becoming increasingly available to a wide range of sports – including those with limited appeal or market for 'mainstream' media coverage.

Associated opportunities (e.g. sponsorship) are also set to influence the nature of Sport and Recreation in the future. These influences will change Sport and Recreation activities both from a consumer's perspective (watching and/or active participation) and from the perspective of organisations providing and/or promoting the goods and services.

4 The business as usual scenario to 2026

4.1 Modelling method

A computable general equilibrium (CGE) model of the New Zealand economy is used to generate scenarios of 2026 which, in turn, are used to assess potential workforce requirements of the Sport and Recreation sector. A CGE model is a standard and widely used tool to investigate the impacts of economic shocks or events, or to measure the contribution of sectors or industries to the wider economy.

The model is a representation of an economy, capturing the inter-relationships within industries, between production and consumption activities, as well as their combined resource requirements. The model depicts the 'production' or 'real' side of an economy, where production includes the provision of goods and services sought by consumers. More detail on the workings of this model is presented in the appendix.

The BERL CGE model includes 53 industries, 40 types of labour and 25 types of exports. The model is used to simulate the effect of a range of comparative scenarios. The scenarios are caused by different assumptions about the economic environment or influences, such as productivity, government policy, world prices, and/or world demand.

Broadly speaking, two components drive any modelling exercise, namely:

- a starting point, which depicts the current situation of the economy and its various sectors
- assumptions about the future, which determine future pictures of this economy.

In this project, 2010 data on the New Zealand economy, along with information on the Sport and Recreation sector's current workforce and its composition as described in the Situation Analysis, form the basis of the starting point for the modelling exercise.

Assumptions about the future are derived from the discussion on influences shaping the future of the sector, also discussed in the Situation Analysis.

From these two components, the model is used to generate:

- a future picture for the New Zealand economy under a set of *business-as-usual* (BAU) assumptions
- future scenario alternatives to the BAU, by adopting alternative assumptions.

4.1.1 Assumptions

There is a set of factors that the CGE model is not able to determine through its processes, and these need to be imposed (or introduced) by the modeller. These are what we term assumptions. The set of factors can be grouped as follows:

- world demand and world prices
- productivity improvements
- growth of population and labour supply
- changes in production processes
- changes in type/quality of services
- changes in consumer tastes.

Firstly, a standard or neutral set of assumptions is adopted in order to generate the BAU picture of the New Zealand economy to 2026.

To generate the BAU scenario to 2026, we assume the following.

- Growth in world demand and prices over the short term to 2016 will be at rates consistent with the consensus of national and international agencies, thereafter gradually reverting to historical averages. We assume that:
    - world demand of NZ trading partners will grow at approximately 2 percent per annum to 2016, and gradually rise to over 3 percent per annum in the 2021 to 2026 period
    - world prices (i.e. world inflation) are assumed to average 2 percent per annum, although energy and oil prices grow faster than this average.

- New Zealand productivity growth is assumed to continue at historical averages (approximately 1 percent per annum), although the short term to 2016 sees lower productivity growth in line with low capital investment in recent years.
- New Zealand population is assumed to grow by 0.8 percent per annum to reach 4.9 million by 2026.
- The New Zealand labour force (defined as all those aged over 15) grows slightly faster, 0.9 percent per annum, as the population composition continues to shift towards the older age groups.
- Production processes, quality and consumer tastes are assumed unchanged in the BAU.
- Public sector funding of the Sport and Recreation sector is assumed to grow in the BAU, in line with the growth in overall government consumption spending.

- government consumption spending growth is assumed to be modest in the short term, in line with the stated government budget targets, before increasing back to historical averages.

Secondly, alternative sets of assumptions are adopted to generate alternative scenarios for the New Zealand economy. In this exercise the alternative assumptions derive from the discussion of influences shaping the future of the Sport and Recreation sector. The alternative scenarios are discussed in section 5. The BAU scenario is summarised below.

4.2 The macro picture – growth continues

In line with the global picture, the BAU scenario sees the New Zealand economy continue to grow over the period to 2026.

As listed in Table 4.1, GDP growth averages a modest 2.3 percent per annum over the short term to 2016. This short-term picture is a direct result of ongoing effects on New Zealand of the global financial crisis. In particular, consumption growth from the government sector is muted as the government accounts are brought back into balance, and export growth is constrained in line with global demand. In contrast, the main contribution to growth arises from investment spending – predominantly associated with the rebuilding of Christchurch.

Table 4.1 BAU scenario – summary of main macroeconomic indicators

	%pa		
Real GDP (11$m)	2012-2016	2016-2021	2021-2026
Household consumption	2.5	3.1	3.2
Investment	3.8	3.1	3.2
Government consumption	1.1	2.6	3.2
Exports	2.3	3.3	3.4
Imports	2.0	3.4	3.8
GDP	**2.3**	3.0	3.1
Employment	1.1	1.1	1.0
Employment (000s per annum)	*24.4*	*25.4*	*24.2*

Over the medium- to longer-term to 2026, GDP growth heads back to 3.0 percent per annum, as exports move to stronger growth in line with global economic activity. This outcome sees employment growth at close to 1 percent per annum to 2026, being the average of approximately 25,000 additional people in jobs each year.

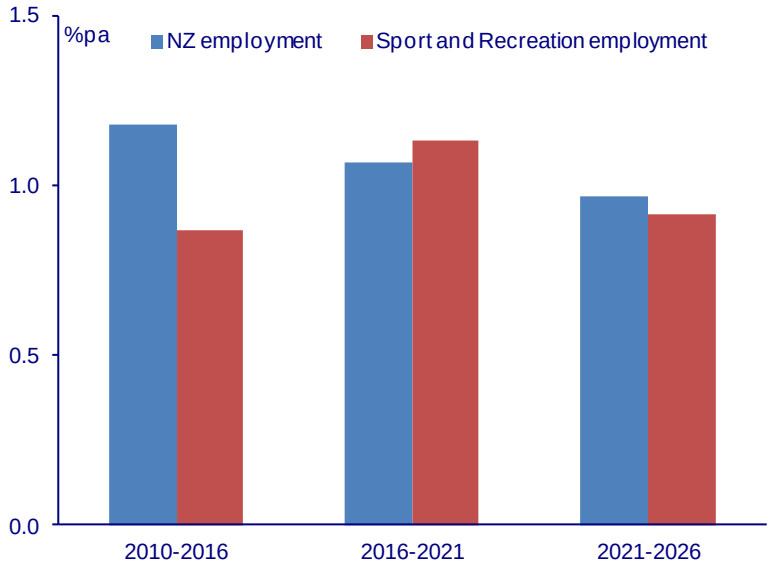
4.3 BAU Sport and Recreation sector workforce

For the Sport and Recreation sector, the BAU scenario sees modest growth over the immediate short term in line with constraints on government and domestic household

consumption spending. This translates to a lower rate of job growth in the Sport and Recreation sector than in the wider economy over the period to 2016.

However, in line with the assumed recovery in the global economy, the medium- to longer-term period to 2026 sees employment in the sector close to the economy's overall average. This is depicted in Figure 4.1.

Figure 4.1 Employment growth in the BAU



In terms of numbers, the BAU sees employment in the Sport and Recreation sector grow from 61,734 in 2010 to just under 72,000 in 2026. Employment in the sector to 2026 grows by more than 10,200 people, with the composition as detailed in Table 4.2.

As is the case in 2010, the largest group of the sector's workforce over the BAU future horizon are in non-manager support functions. This group accounts for by far the majority of the increase in employment. This reflects the relative lack of flexibility in such support positions in the sector. Conversely, the relatively lower growth in technical positions in the short term suggests that technical positions may be more discretionary during times of lower sector growth. This comment similarly applies, albeit to a lesser degree, to the number in the manager component of the workforce.

Table 4.2 Sport and Recreation sector employment in BAU

	2010	2016	2021	2026	2016	2021	change
					Change from 2010		
Technical	20,805	21,678	22,662	23,476	873	1,858	2,671
Managers	5,176	5,345	5,587	5,808	168	410	632
Support – managers	6,219	6,375	6,695	7,018	157	477	800
Support – other	29,534	31,619	33,829	35,664	2,084	4,295	6,129
Total	61,734	65,017	68,774	71,966	3,283	7,040	10,232

Nevertheless, it is clear that not only does the sector increase in size over the period to 2026, but all four components (i.e. technical, managers, support managers and non-manager support) of the sector's workforce have more people employed in the BAU scenario.

Within the technical workforce, the changes reflect the overall size of each category, with the number of instructors/coaches increasing by over 1,000. In addition, the number of guides, greenkeepers, boat builders and physiotherapists each rose by more than 220 over the period to 2026.

Table 4.3 Sport and Recreation sector BAU employment in technical workforce

	2010	2026	change
Instructors/Coaches	8,785	9,858	1,073
Guides	1,186	1,462	277
Sportspersons	791	870	79
Sports officials	209	229	20
Greenkeepers et al	3,002	3,331	329
Boat building et al	1,928	2,208	280
Physiotherapists	1,521	1,747	226
Lifeguards	1,412	1,543	131
Park rangers	507	558	50
Other technical	1,463	1,670	207
Total technical	20,805	23,476	2,671

Within the support category, increases in the number of finance and advertising positions to 2026 reflect their overall size in the current Sport and Recreation workforce.

Table 4.4 Sport and Recreation sector BAU employment – selected support categories

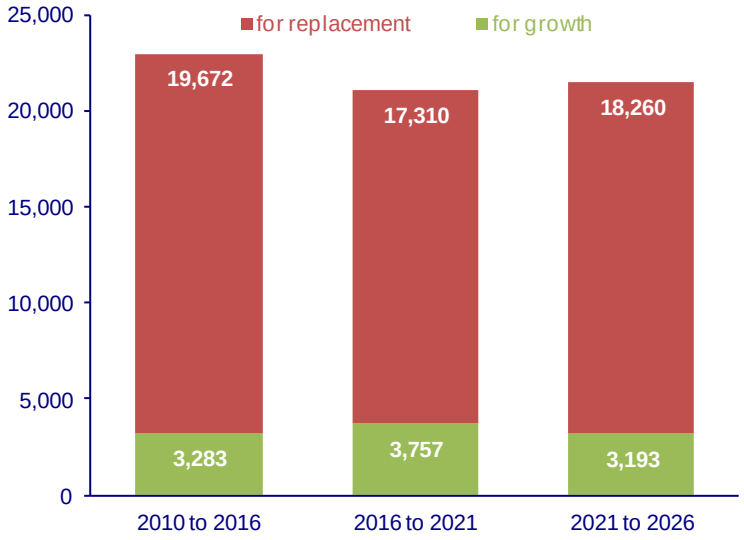
	2010	2026	change
Policy and Planning Managers	647	716	69
Sales, Marketing, Advertising and PR Managers	838	1,027	190
Program or Project Administrators	564	626	62
Accountant, Finance and Corporate Services Managers	1,335	1,637	302
IT professionals and support	352	441	88

4.4 Sport and Recreation sector BAU additional workforce requirements

The increase of more than 10,200 in the sector's BAU workforce to 2026 is a subset of the total additional requirements. In particular, the sector also needs additional people over the period to replace those who retire or otherwise exit employment in the sector. Workforce exit rates from the sector are a combination of staff turnover from individual enterprises, modified by those who move between establishments in the sector.

Assuming a moderate rate of workforce exits from the sector, ranging from 3 percent per annum for many categories in the technical workforce to 7.5 percent per annum for some finance and other support functions, results in additional requirements in the BAU as depicted in Figure 4.2.

Figure 4.2 Sport and Recreation sector additional BAU workforce requirements



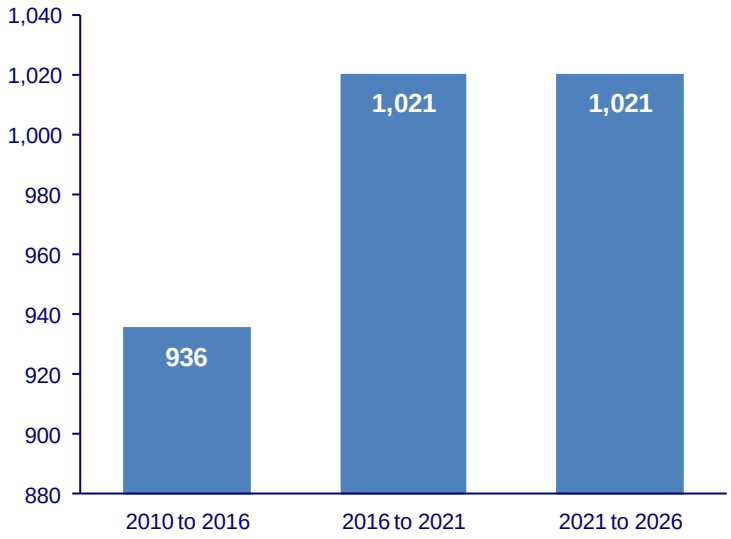
The more than 10,200 increase noted above is depicted in Figure 4.2 as the green-shaded areas in each of the bars. It is clear that the additional workforce required for growth in the BAU scenario is overwhelmed by the additional numbers required for replacement purposes. For example, over the 2016 to 2021 period, total job numbers in the sector rise by nearly

3,760. However, over the same period, a further 17,300 people are required for the Sport and Recreation sector workforce to replace those who exit the sector.

Adopting an assumption of a low rate of workforce exits from the sector, ranging from 1.5 per cent to 5.6 per cent per annum, reduces the 17,300 figure to just over 11,950. Despite this reduction, this figure is still more than three times that required for growth. This result reinforces the importance of replacement requirements when projecting workforce needs for the sector.

Returning to the moderate exit-rate assumption, the numbers required equate to between 3,800 to 4,300 new entrants per annum to the Sport and Recreation sector workforce. Breaking this down, Figure 4.3 shows that the average annual requirement for additions to the technical workforce (for both growth and replacements) ranges from 930 to 1,020. Over the same period, the corresponding numbers for managers range from 320 to 360 per annum, while another 400 to 470 per annum support managers are required in the BAU picture.

Figure 4.3 Average per annum additional BAU technical workforce requirements



5 An alternative scenario to 2026

5.1 Rationale

The rationale for an alternative scenario for the Sport and Recreation sector derives from the earlier discussion of the factors likely to influence the sector. For the modelling exercise these factors and influences can be seen as a series of questions.

- How will changes in the global market for Sport and Recreation goods and services impact on the demand for, and supply of, Sport and Recreation goods and services produced by New Zealand businesses?[7] The changes in the global marketplace could,for example, relate to:
  - the price of services
  - the cost of producing items
  - the methods or processes that are used to produce items
  - the way in which services are delivered.
- How will productivity improvements change the way in which skills, techniques, equipment or research are used by New Zealand Sport and Recreation businesses? This may also include, for example, the development or introduction of new products or services for provision domestically and/or abroad.
- How will New Zealand's population growth impact on the demand for Sport and Recreation products and services? This may also include, for example, changes in the types of products and services demanded.
- How will growth in New Zealand's labour force impact on the quantity and type of labour available to businesses in the New Zealand Sport and Recreation sector?

There are areas of overlap across many of these influences. However, they are all likely to influence *both* the demand for, and the supply of, labour to some degree. Furthermore, each of these influences is likely not only to impact on the overall level of demand for labour by the sector but also to change the *composition* of skills and competencies required by the sector.

The alternative scenario for the Sport and Recreation workforce developed in this section captures a range of these influences. This scenario can be compared to the BAU scenario described in the previous section. The difference between these two scenarios indicates the

[7] The term 'business' used here includes all economic entities, organisations, or enterprises – whether for-profit or not-for-profit or in the public or the private sector.

changes arising as a result of these influences impacting on the sector, as well as the effect of the sector responding to these influences.

5.2 The scenario picture

5.2.1 Assumptions

This alternative scenario is assumed to capture the following influences.

- The impact of new sports types and markets, driven by changes in behaviour, participation, and demographic factors. This aims to capture the effect of the changes on the consumer (demand) side of the market for Sport and Recreation products and services. Included in this influence is the impact of changing demand from foreign sources, with the development of closer relationships between sports sector organisations and tourism ventures. These influences are introduced into the model through:
  - an increased preference for Sport and Recreation products and services by private domestic households
  - an assumed increase in demand for Sport and Recreation services from the export sector.

- A shift in sports sector organisations towards a more business-like orientation, and consequent shift in labour demand towards more business skills and capabilities. This is a mirror of the demand-side changes, and assumes a proactive response by organisations (producer or supply side) in the Sport and Recreation sector. These influences are introduced into the model through:
  - increased productivity (of both labour and capital) in the Sport and Recreation sector
  - an increase in the proportion of inputs of 'other business services'[8] by the Sport and Recreation sector
  - an increase in investment spending of the 'other business services' sector.

- The impact of the focus on developments of new infrastructure investment in the Sport and Recreation sector in Auckland and Christchurch.

[8] The 'other business services' sector in the model captures a broad range of business service consultancies or agencies providing, for example, management, HR, marketing, IT, and other advisory services. Assuming that organisations in the Sport and Recreation sector use a greater proportion of services from 'other business services' is a way of imposing (in modelling terms) a shift towards a more business-like orientation.

5.2.2 Results

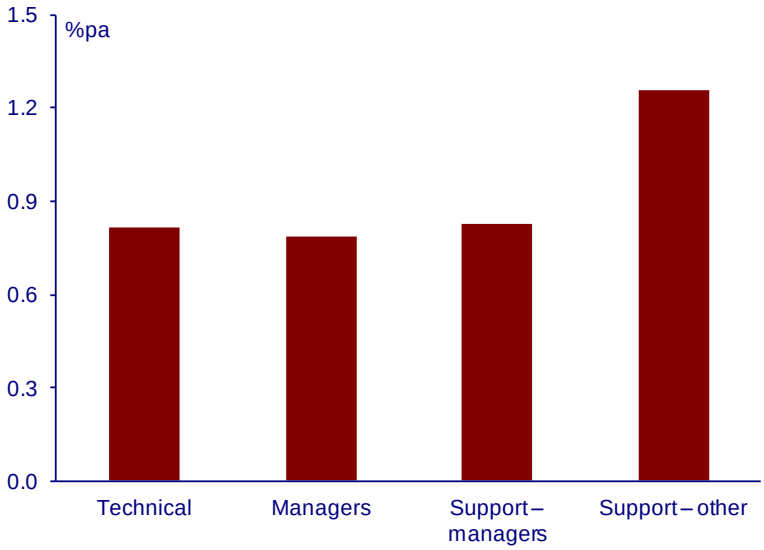
Table 5.1 Sport and Recreation sector alternative scenario employment

	2010	2016	2021	2026	2016	2021	change
					Change from 2010		
Technical	20,805	21,746	22,796	23,692	942	1,991	2,887
Managers	5,176	5,366	5,628	5,870	190	452	693
Support – managers	6,219	6,402	6,744	7,097	183	525	878
Support – other	29,534	31,783	34,130	36,056	2,248	4,595	6,522
Total	61,734	65,297	69,297	72,714	3,563	7,563	10,980

Putting these influences together results in employment in the Sport and Recreation sector rising by nearly 11,000 from 2010 levels to reach over 72,700 in 2026.

As listed in Table 5.1, support functions within the sector continue to dominate overall employment numbers. By 2026 close to half of the sector's employment will be in non-manager support functions. The increased importance of these functions is even clearer in the different rates of growth for the function groups that make up the Sport and Recreation workforce. This is depicted in Figure 5.1.

Figure 5.1 Growth in employment – alternative scenario 2010-2026 %pa



Within the support categories, there are noticeable increases in marketing and finance-related categories as listed in Table 5.2.

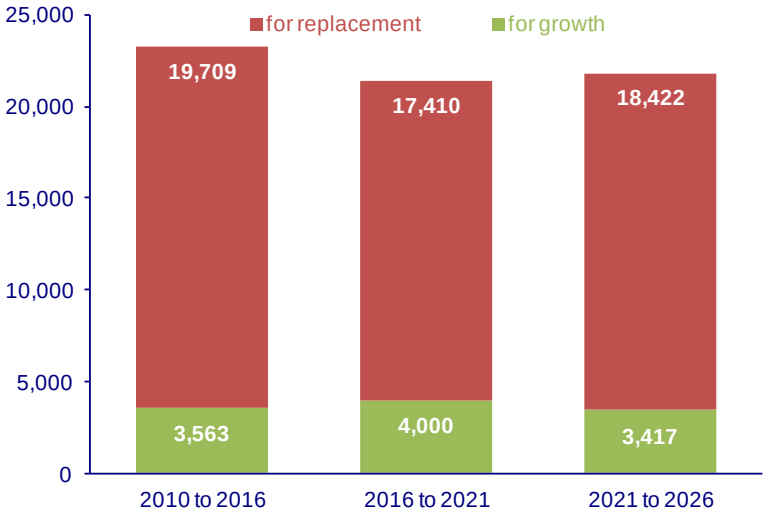
Table 5.2 Sport and Recreation sector alternative scenario employment – selected support categories

	2010	2026	change
Policy and Planning Managers	647	722	75
Sales, Marketing, Advertising and PR Managers	838	1,038	200
Program or Project Administrators	564	632	68
Accountant, Finance and Corporate Services Managers	1,335	1,654	319
IT professionals and support	352	445	93

5.2.3 Workforce requirements

In addition to the increase in the sector's workforce resulting from the above growth, there is the need to replace staff that retire or otherwise exit the workforce of the sector. Assuming a moderate rate of exits (ranging from 3 percent per annum for many categories in the technical workforce to 7.5 percent per annum for some finance and other support functions) results in additional requirements in the alternative scenario as illustrated in Table 5.2.

Figure 5.2 Sport and Recreation sector additional workforce requirements – alternative scenario



This translates to between 3,900 and 4,400 new entrants into the sector's workforce each year.

In terms of the technical workforce, annual requirements for new entrants range from 950 to 1,050 over the period to 2026. Of these figures, 360 to 400 are new instructors/coaches.

Assuming a lower rate of exits lowers these figures. In such a case, total requirements for new entrants declines to between 2,850 and 3,250 per year, with additional numbers for the technical workforce down to a range of 550 to 625 per annum.

Nevertheless, the dominance of the numbers required for replacements, compared with those required for growth, remains large.

5.3 Comparison of BAU workforce with alternative

With the sector facing a range of influences and assuming the sector responds in a proactive manner, the size of the sector workforce is set to increase. In comparison with the BAU, the alternative scenario sees the Sport and Recreation sector workforce in 2026 nearly 1,000 larger.

Figure 5.3 Sport and Recreation sector workforce – 2010 to 2026

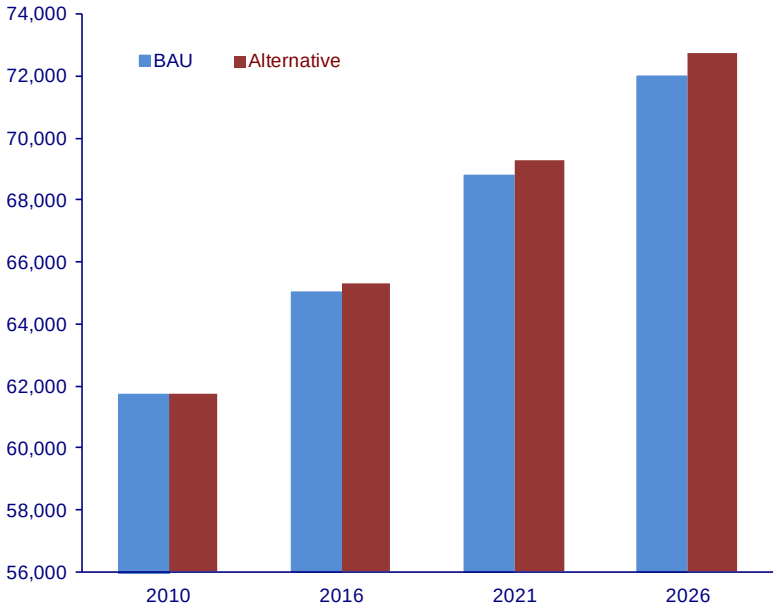
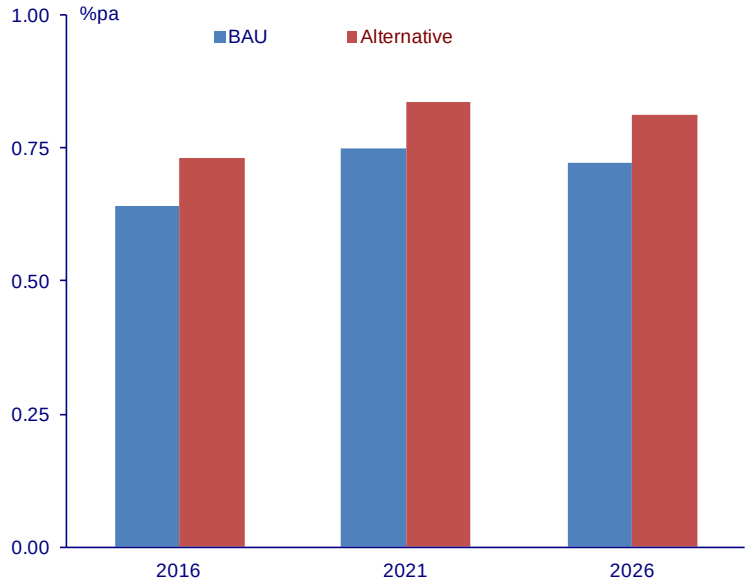


Figure 5.3 shows the size of the 2026 workforce growing to over 72,700 in the alternative scenario, compared with just under 72,000 in the BAU. While the difference between the alternative and the BAU scenarios grows over time, in line with the sector's ability to respond to external influences, it is true that the difference remains small.

5.3.1 Comparison of workforce to 2010

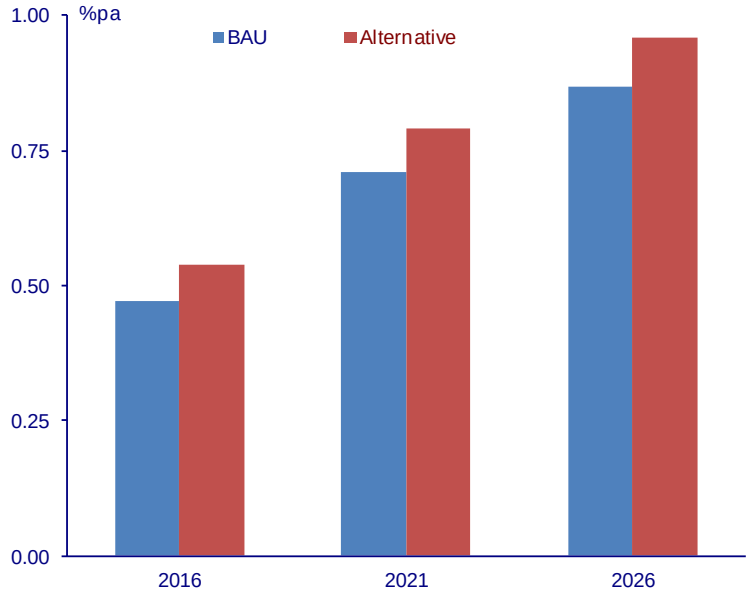
There are, though, noticeable differences at the more detailed level, as the influences impact on different occupation types. For example, the faster growth in the alternative scenario is reflected in the number of instructors and coaches in Figure 5.4.

Figure 5.4 Growth in number of instructors and coaches – %pa from 2010



This figure also shows that, while the growth rate in the alternative scenario is higher than in the BAU, growth remains relatively constant over the whole period to 2026. This is in line with the context that the influences relevant to instructors and coaches do not accelerate over time. In particular, changes in behaviour and participation are expected to continue to be gradual, as opposed to any one-off step change.

Figure 5.5 Growth in number of physiotherapists – %pa from 2010



In contrast, the growth in the number of physiotherapists is illustrated in Figure 5.5 as both higher in the alternative scenario and increasing over the period to 2026. Here, demographic influences arising from the changing population structure (greater proportions in both younger and older age groups) may be relevant.

5.3.2 The consequences

While these observations provide useful insights at the detailed level, the comparison between the alternative scenario and the BAU does not alter the primary conclusion concerning the large number of replacements required.

Despite the impact of a range of influences on an interrelated and complex sector, the inescapable conclusion remains that the numbers (in both the alternative scenario and the BAU) are dominated by the additional new entrants required to replace those leaving.

For example, the BAU indicates that over the 2016 to 2021 period:

- 17,310 new entrants are required to replace those leaving the sector
- nearly 3,760 new entrants are required to accommodate growth in the sector
- a total of just over 4,200 new entrants is required each year.

Similarly, figures for the alternative scenario over the 2016 to 2021 period are:

- 17,410 new entrants are required to replace those leaving the sector
- 4,000 new entrants are required to accommodate growth in the sector
- a total of nearly 4,300 new entrants is required each year.

Even where favourably modest (low) exit rates are assumed, numbers required to enter the workforce each year are in the order of 3,200. Of these, around 600 would be in the technical workforce. Higher exit rates, or additional influences impacting on demands for the sector (or more dramatic changes in functions within the sector), would likely increase these numbers further.

6 Framework for workforce plan

The Sport and Recreation sector and its constituent workforce face a challenging future. The changing nature of demand for sport and recreation services, accompanied by ongoing technological developments, are set to feature highly amongst the challenges. In addition, the composition of the workforce could change noticeably over the coming decade as ethnicity and age trends across New Zealand society and its workforce impact on the industry. Underlying these influences are funding considerations that could both constrain the sector's response to external factors and accelerate its changes to meet new funding models.

6.1 Why a workforce plan?

This project has identified the diverse nature of the Sport and Recreation sector workforce, including the 'support' functions that dominate the workforce. Looking ahead, the overall composition of the workforce – between 'technical', 'manger' and 'support' functions – is unlikely to alter dramatically. However, composition at the more detailed level will shift considerably as the sector responds (or is forced to respond) to external influences or issues. Many of these issues provide both challenges and opportunities.

A workforce plan provides a basis for realising these opportunities and countering challenges.

A prerequisite for such a plan, though, is a fuller understanding of the current and future role of volunteers in the sector. In addition, further engagement with the sector will assist in improving awareness of the issues facing the workforce and to establish the sector's willingness and ability to respond to these. Indeed, the question of whether or not a sector-wide approach is preferred could also be tackled at this stage.

A workforce plan would enable the sector to agree what such a sector-wide approach would mean in practice.

6.2 Issues arising

The challenges facing sector leaders will be many and varied. We suggest the following are worthy of particular note.

- The roles and functions of volunteers in the sector's activities.
    - A potential negative could be other sectors (e.g. health, caregiving) also reliant on voluntary workers increasing the competition for such workers.

- A potential positive could be the increasing pool of voluntary workers as retirees from other sectors look to explore opportunities in the sport and recreation sector.

- Competition for workforce from other sectors and from other countries.
  - The overriding influence facing sectors in their development of a workforce for the coming decade (and beyond) remains intense competition for labour with the necessary capabilities and competencies.
  - In the New Zealand context, the changing demographics (both ethnic and age) of the workforce are set to be accentuated by large migrant inflows and outflows.
  - Competition for labour will undoubtedly be more intense for support and manager functions, where skills and capabilities are more readily transferable.
  - Remuneration within the not-for-profit sub-sectors of the Sport and Recreation sector may not be as competitive as elsewhere. However, the comparison with other not-for-profit sectors is more favourable. There are also other non-remuneration (or intrinsic) features attracting workers to the Sport and Recreation sector. The question remains though, how relevant these intrinsic features are for those with more transferable skills in the manager and support functions.

- Clarifying and promoting workforce career paths within the sector.
  - For example, there may be additional opportunities for volunteers to move into the paid workforce.
  - Another example could be paths from technical functions to manager functions (e.g. from fitness instructors through to fitness centre managers).
  - Explicit identification of career paths goes hand-in-hand with explicitly describing the abilities and competencies required in the various roles. In turn, this provides a link to the Targeted Review of Qualifications.

- The structures within, and organisation of, the sector.
  - The sector is well-placed in terms of its existing structures and networks, which provide a foundation to tackle sector-wide challenges.
  - Nevertheless, the Sport and Recreation sector is a complex facet of the New Zealand economy, with a diverse set of stakeholders – including funders; goods producers; service deliverers; training establishments and organisations; infrastructure providers – in the private, public and not-for-profit sectors.
  - Forming a sector-wide response to broad and, potentially, overwhelming challenges requires both a sense of cohesion and leadership.

- Allied to the previous point, the duplication of effort, services, and/or tasks and the potential to pool resources within the sector to minimise such duplication has been suggested by several in the sector.
    - Tasks within IT, finance and/or manager functions are cited as candidates in this context.
    - Again, for these options to be pursued successfully, cohesion and leadership would be required.

- Relationships between the sector and associated operators.
    - The relationships between sport and recreation organisations and education and training providers are important in developing the necessary skills and capabilities required by the sector.
    - Relationships between organisations in the sector and tourism providers may well grow further, in line with the increasing influence of international visitors on the demand for sport and recreation (and adventure) activities.
    - Investment partners, both public and private sector, in the provision of facilities add to the dimensions to consider when striving for relationships with a sector-wide perspective.

Without doubt, the range of challenges facing the Sport and Recreation sector could be seen as daunting. Nevertheless, the future is one of a modestly growing sector, increasing in size in both employment and value to the broader economy. Within this context lie the potential for changes in the nature and composition of not only the sector's workforce, but also the way in which the sector delivers its services and, perhaps, the services it delivers. Arguably, these changes are likely to be rapid. Their consequences, or the way the sector responds, could be imposed and external, and/or they could be proactively managed by the sector.

6.3 Potential responses

Many, if not most, of these influences lie outside the control of the sector and its organisations. However, the response of the sector to these influences will be central in determining the shape of the sector in the future.

Potential responses of the sector range from a passive and reactive stance, to proactive management of a strategic direction. As noted earlier, funding constraints will inevitably push organisations towards a more 'business' model for both profit and not-for-profit organisations. Arguably, the common denominator for a 'business model' is the customer orientation (or demand-driven) nature of the organisation. Demands from the range of stakeholders present in the sector may need to be balanced when considering changes in

the ‘business model’ driving sport and recreation organisations. For example, some stakeholders may prefer a membership driven organisations, as opposed to a customer driven ‘business model.

Responses more specific to the workforce could be a combination of:

- modifying workplace models, practices, and arrangements; noting that the mix of full-time and part-time staff, (along with casual and volunteers) is likely to become more uncertain, for example:
    - employment packages that supplement remuneration with professional development and career planning opportunities
    - encouraging flexible and adaptable practices such as, where appropriate, working from home, contributing to decision-making processes, and acknowledging ethnic and cultural differences
    - greater integration between volunteer and paid workforces, including creating opportunities for volunteers to move into the paid workforce.
- ensuring the consequences of sector changes for mentoring, coaching, institutional experience and knowledge transfer, are actively identified and addressed
- identifying and actively encouraging a variety of career paths
- identifying competencies required at various stages of the path and explicitly encouraging and promoting them.

Overriding any response is the question of whether the challenges are indeed seen and addressed from a sector-wide perspective, or whether they reside in individual organisations.

6.4 Workforce planning

Looking ahead, the world is not only changing; the pace of change is increasing. Global economic (and inevitably political) power will continue to disperse over the coming decade. The shift in relative power from the North Atlantic to the Asian hemispheres is set to accelerate as the fallout of the 2008 financial crisis continues to make its mark. Many Asian economies (with the primary exception of India) are net lenders in terms of financial imbalances, and so are potential suppliers of investment capital.

Influences from Asia are also likely to expand as the infrastructure-based development cycle of many parts of Asia continues. In addition, the power of their consumer markets is set to intensify.

Within this context, our projections reinforce the importance for the Sport and Recreation sector of its funding constraint. Reductions (or increases) in public sector funds of the order of 2 percent or more compared with a BAU scenario are shown to outweigh impacts on the workforce of other market, demographic or regional influences.

However, our projections reveal the overwhelming importance of replacements when assessing workforce requirements. Whether the replacements are for retirements or for those exiting to other sectors or countries, these workforce requirements are noticeably larger than those for growth. This observation remains even when assuming relatively low rates of exits.

Consequently, any workforce plan will need to address how to maximise retaining the existing workforce as well as attracting new people. This could be eased if a sector-wide approach is taken – career paths can be mapped, exploiting the breadth of the sector and the opportunities inherent in them.

A workforce plan could highlight the advantages of the sector-wide approach, as well as assisting (facilitating) the implementation of such an approach.

A sector-wide approach may also help in the identification of more 'non-traditional' career paths or models, which may be seen by some as an advantage. That is, career paths that do not start at A and finish at B, through progress along a structured hierarchy. Rather, a model could see multiple 'exits' and 're-entries', with re-entries at different organisations, or elements within the broader sector. Such a development would also require close engagement with training providers, organisations and qualification designers. Including these stakeholders in discussions concerning workforce planning may encourage them to also view their relationships from a sector-wide perspective.

The demographics of the Sport and Recreation workforce are skewed towards the young and those of European ethnicity. A workforce plan would be an ideal place to openly address whether the mismatch between the Sport and Recreation workforce and the wider population demographics is a risk to the longer-term development of the sector. Such a sector-wide approach to this factor could precede a plan (and implementation thereof) to proactively re-balance the mismatch – if that was the sector's wish.

6.5 The need to manage change

Our modelled scenarios, and the observations that follow, reinforce the need for a proactive, strategic approach to the development of the sector's workforce.

There are a myriad of challenges, including: the use of voluntary workers; the business environment, market demand and the role of the public sector; funding constraints and alternative funding sources; a diverse range of stakeholders; the ethnic composition of the workforce; and the sheer quantum of replacements required.

Almost all of the changes that bring these challenges to the fore are inevitable and inescapable. However, such challenges may also be viewed as opportunities.

A reactive stance from individual organisations in the sector is an alternative. But this is likely to lead to ad hoc responses and leave the sector even more vulnerable to external pressures.

Next steps could include:

- understanding the role of the volunteer workforce – and its relationship to the paid workforce
- further engagement with the sector (including associated players such as, for example, education, training, and tourism providers) to agree the role, scope, and responsibilities of individual organisations, as well as the sector, in the development and implementation of a workforce plan.

Above all, clear priorities and processes need to be agreed and pursued by the sector's leadership.

This will enable the sector to be better positioned to proactively respond to the ever-changing demands from New Zealand society for sport and recreation services.

7 Appendix

7.1 Abbreviations

The following abbreviations are used in this document.

ANZSCO	Australian-New Zealand Standard Classification of Occupations
ANZSIC	Australian-New Zealand Standard Industrial Classification
BAU	Business as Usual
BDS	Business Demography Statistics
CGE	Computable General Equilibrium
GDP	Gross Domestic Product
HLFS	Household Labour Force Survey
HPSNZ	High Performance Sport New Zealand
ITO	Industry Training Organisation
n.e.c.	Not elsewhere classified
n.e.i.	Not elsewhere included
n.e.s.	Not elsewhere specified
NZOC	New Zealand Olympic Committee
NRO	National Recreation Organisation
NSO	National Sport Organisation
NZRA	New Zealand Recreation Association
RSO	Regional Sport Organisation
RST	Regional Sport Trust
Skills Active	Skills Active Industry Training Organisation (formerly Sport Fitness and Recreation Industry Training Organisation Ltd)
SPARC	Sport and Recreation New Zealand, now Sport New Zealand

7.3 CGE model

The CGE model separately identifies 53 industries, 25 export and eight household commodities and 40 different occupation categories.

Each industry produces a single output via a production function requiring a fixed combination of intermediate and primary factor inputs. At the secondary level, each intermediate input is a mixture of a domestically produced item and its imported equivalent. Producers can substitute between these two sources for each intermediate input in response to shifts in the relative price of each according to a CES[9] mixing function. Substitution elasticities are less than infinite to reflect, in part, the degree of aggregation as well as technological limits to such substitution. Similarly, the primary factor input comprises a CRESH[10] function, mixing 40 different types of labour and one physical capital resource.

Each industry's output is either sold to other industries for use as intermediate inputs, or sold to meet final demand agents. The classification of imports is such that the output of each domestic industry competes against one imported equivalent item, subject to the substitution elasticity noted above. These substitution decisions are underpinned by the neo-classical framework of profit-maximising, and cost-minimising, producers.

Final demand agents comprise other industries for the production of investment goods, domestic households for consumption, foreign demand for export, and government.

Production of investment goods involves a similar CES mix of imported and domestic inputs. Aggregate investment is exogenous to the model, either as a fixed amount or as a set ratio to GDP. However, investment activity is allocated across industries endogenously, so as to equate expected rates of return.

Households allocate their income according to a LES[11] function across a consumption basket containing eight consumer categories. Again, within each of these categories, consumers can shift between domestically made items and their imported equivalents in response to relative price changes given the constraints of a CES function. Aggregate consumption is linked to household income, which is predominantly determined by employment income.

Government consumption demand is exogenous to the model, either at a set figure, or at a specified ratio of GDP.

[9] Constant Elasticity of Substitution.

[10] Constant Ratio of Elasticity of Substitution Homothetic.

[11] Linear Expenditure System.

Exports are modelled as facing a less than perfectly elastic demand curve. As such, foreigners demand more (or less) from New Zealand sources depending on the relative price competitiveness of New Zealand-made products *vis-à-vis* products from elsewhere. Differing elasticities amongst the commodities reflect, in part, aggregation as well as non-market barriers to the expansion of export sales. In general, New Zealand exporters of primary commodities such as dairy and meat face steeper demand curves than manufactures and service exporters.

Figure 7.1 Schematic outline of the CGE modelling process