

— Dive

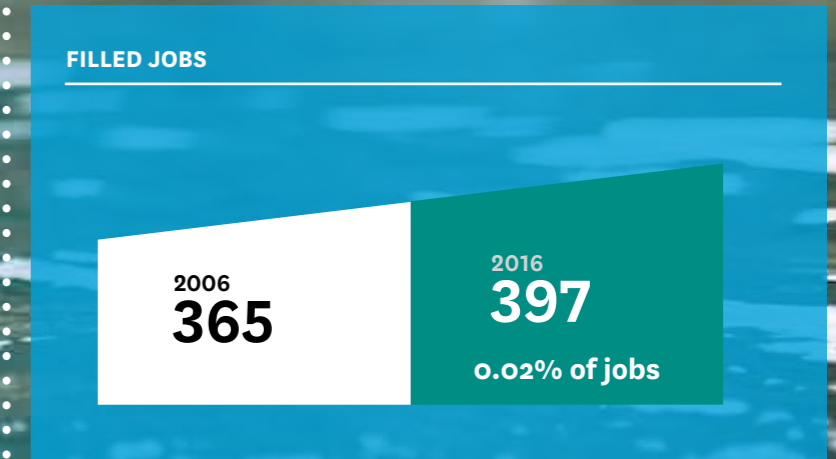
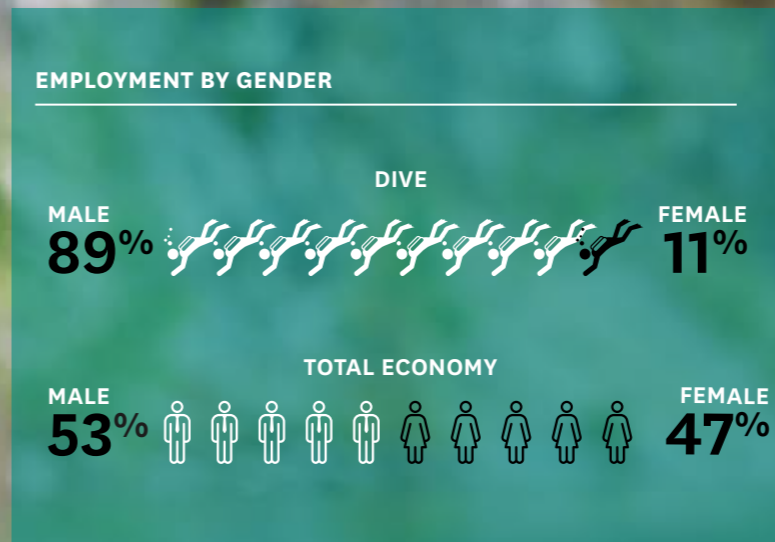
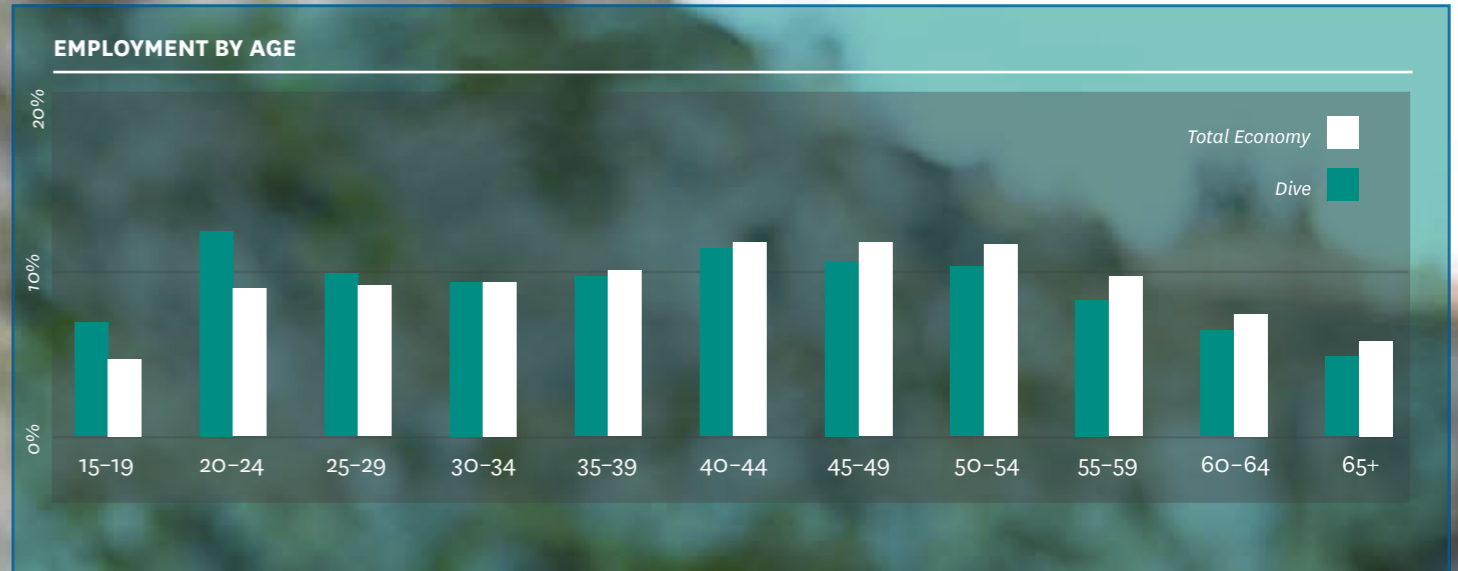


New Zealand's extensive coastline provides locals and visitors with a prime opportunity to interact with the marine environment. Diving is one way people can engage with the underwater world. While many New Zealanders enjoy diving for leisure, there are also a wide range of occupations that require a dive skill set.

Industry snapshot



While many New Zealanders enjoy diving for leisure, there are also a wide range of occupations that require a dive skill set



Industry profile⁸²

Effective use of the marine environment can provide many economic, ecological, social and cultural opportunities.

Professionals with a dive skill set have the expertise that enables them to productively and safely engage with the underwater environment. Divers may work underwater for a variety of reasons, including: construction work, gathering seafood and aquaculture, retrieving property from shipwrecks, search and rescue, film production and photography, police and military work, science, conservation and bio-security, safety diving, tourism, guiding or dive instructing.

There were 79 dive-specific business units in the industry in 2016. There has been no significant change over the last five years. Business unit growth over this period was lower than in the total economy (1.5% per annum).⁸³

The average number of employees per business unit in the dive industry increased from 4.4 employees per business unit in 2011 to 5 employees per business unit in 2016. Over the same period, the average employees per business unit in the total economy increased from 4.2 to 4.3.

ROLES COVERED UNDER THE DIVE INDUSTRY SCAN

Diver

Swims underwater to undertake tasks such as seafood gathering, research, salvage and construction.

Specialisations:

- Abalone diver
- Clearance diver (Navy)
- Fisheries diver
- Hyperbaric welder diver
- Offshore diver
- Onshore diver
- Pearl diver
- Saturation diver
- Scientific diver.

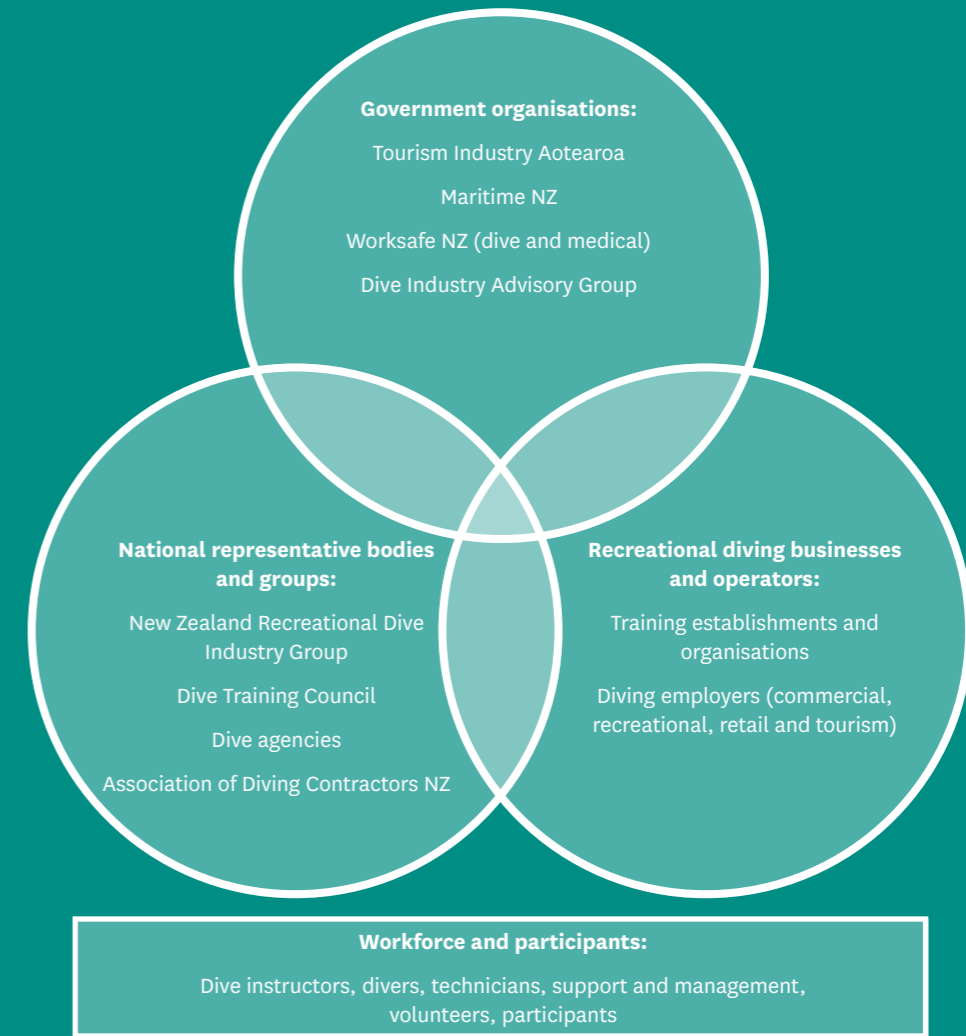
Diving instructor (open water)

Trains and instructs recreational or commercial open water divers in diving techniques, safety and the correct use of diving equipment.

Specialisations:

- Dive master
- Scuba instructor
- Snorkelling instructor
- Surface supply breathing apparatus (SSBA) instructor.

Industry structure



TYPES OF DIVING ACTIVITIES

The dive industry can be broken into two distinct areas: Supporting recreational diving, and the commercial (including scientific) diving sectors. Recreational diving can be defined as diving carried out by individuals or groups for their own pleasure. This part of the industry is supported by retail, wholesale, tourism, travel, charters and tour operations.

RECREATIONAL DIVING INCLUDES PEOPLE WORKING IN:

- Dive shops – providing recreational limits training, organised trips, retail and dive organisations
- Equipment – manufacturers, wholesalers, distributors and service technicians
- Compressor operation – air filling/air purity, cylinder testing
- Recreational diver training – dive certifications, technical, instructors
- Training organisations – providing tertiary and national dive qualifications, tertiary diver training, dive-related guidelines, standards, legislation, compliance
- Dive tour and charter vessel operation – charter operations working in conservation, leisure guiding and tourism.

COMMERCIAL DIVING INCLUDES PEOPLE WORKING IN THE FOLLOWING SECTORS:

- Dive training
- Aquaculture and seafood
- Construction, industrial and salvage
- Media and film
- Military and government services
- Science, conservation, research, archaeology and bio-security.

**In 2016, there were 79
dive-specific business units in the industry**

⁸²The data in this scan only covers those who have the occupation of a diver or a dive instructor. It does not cover those in the broad range of occupations for which dive skills are important in order to productively engage in work. Caution is advised when interpreting the data in this section, given the small sample size.
⁸³This excludes business units that may employ divers or people with dive skill sets, but do not identify as a diving business.

Workforce profile

JOBS BY VOLUME

Worldwide, there are over 6,200 Professional Association of Diving Instructors (PADI) dive centres and resorts, and more than 136,000 individual PADI professionals, who have issued more than 23 million certifications around the world. In addition, Scuba Schools International (SSI) has over 2,800 international locations – including centres in New Zealand, and 13 dive centres in New Zealand provide training through international dive agency NAUI.

There were 397 divers or dive instructors employed in the dive industry in 2016, or 0.02% of the total workforce in New Zealand. This does not cover those in the broad range of occupations for which dive skills are essential for their work. The total number of people who use dive skills in their work is not known.

Employment growth in the dive industry in the five years to 2016, of 2.7% per annum, was stronger than employment growth in the total economy (1.9% per annum).

In the five years to 2021, employment in the dive industry is expected to grow by an average of 4.5% per annum, peaking at 495, compared to the predicted growth in the total economy of 2.3% per annum.



DIVER

254



DIVING INSTRUCTOR (OPEN WATER)

143

FILLED JOBS

Employment in the dive industry in the five years to 2021 is expected to grow by 4.5% per annum



TYPE OF EMPLOYMENT

People working in the dive industry, like people in the total economy, typically work 40-49 hours per week (77% and 76% respectively in 2013).

Over the five years to 2016, the number of Full Time Equivalent (FTE) employment numbers in the dive industry grew by 3.4% per annum, to 363.⁸⁴

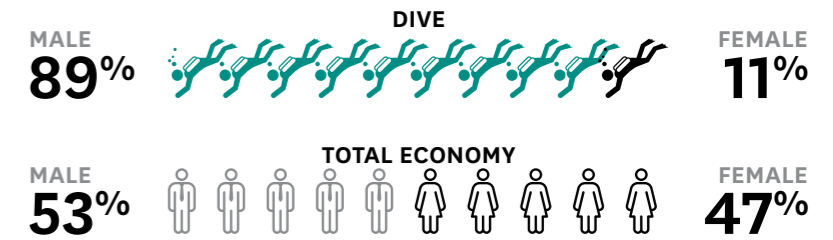
In 2016, 18.9% of the industry was self-employed. This is slightly higher than the total economy's self-employment rate of 18.0%. In the five years to 2016, the self-employment rate in the dive industry declined, while the overall total economy self-employment rate increased.

⁸⁴Full-time equivalent (FTE) employment is a way of looking at employment that takes into account the work-load of people into employment. FTE employment measures the number of people in employment for 40 hours or more per week. Two people who are employed part-time are measured as one FTE. Using FTEs instead of employment to look at change over time can provide a more consistent comparison of labour resources used in employment over time.

Workforce makeup

GENDER

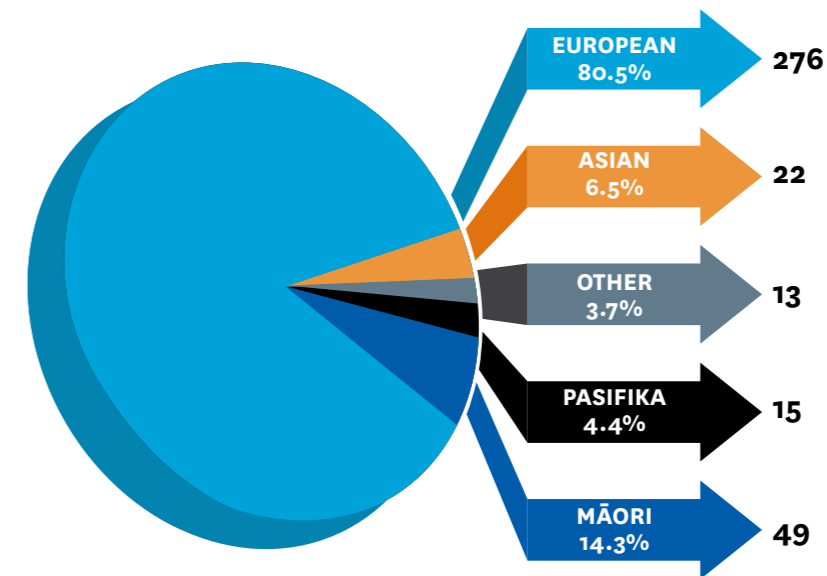
There are significantly fewer female than male workers in the dive industry. Despite a 3.7% increase between 2001 and 2016, female workers still only accounted for 11.3% of the industry in 2016. Over the same period, the share of females in the total economy increased from 45.5% to 47.2%.



ETHNICITY

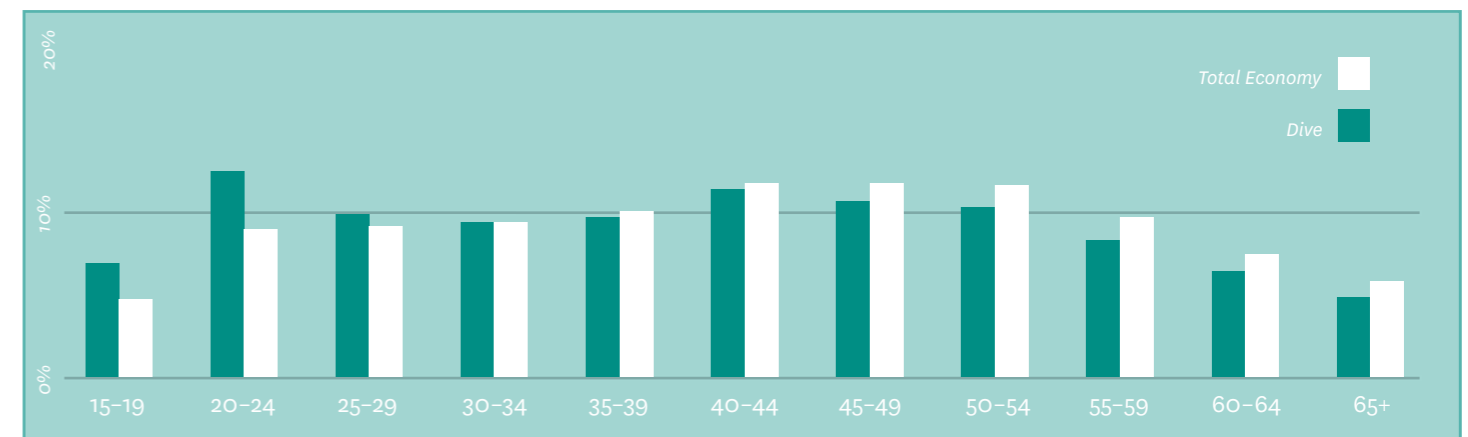
The majority (80.5%) of people in the dive industry in 2013 identified as NZ Pakeha/European. This was also the case with the total economy (77.2%). People who identified as Māori accounted for 14.3% of the dive industry in 2013, which is higher than the

11.1% of people in the total economy who identified as Māori. People who identified as Pasifika made up 4.4%; and Asian people at 6.5%.



AGE

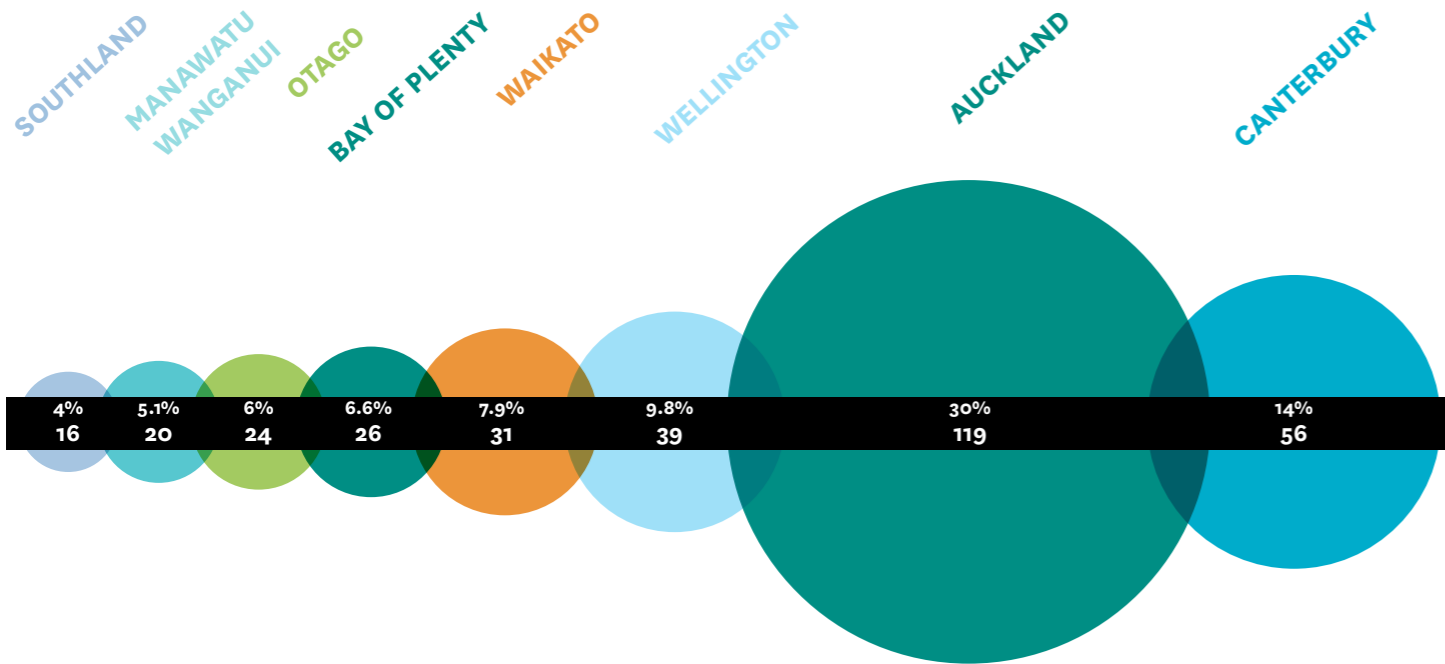
The average age of those working in the dive industry in 2013 was 40.8 years, compared with 43 years in the total workforce.



REGIONAL EMPLOYMENT

In 2016, of the 397 people employed in the dive industry, 30% were based in the Auckland region. Industry employment in

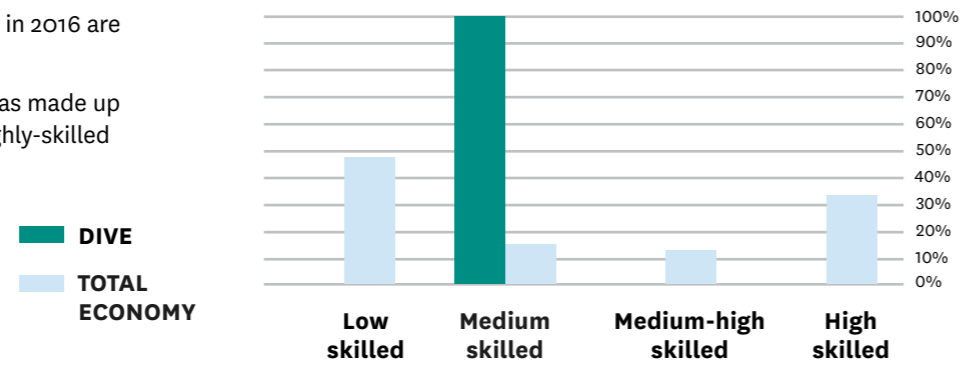
Auckland grew at a faster rate than employment nationally between 2011 and 2016.



SKILL LEVEL⁸⁵

The two dive industry occupations captured in 2016 are classified as medium skilled.

In comparison, the total economy in 2016 was made up of 38% low-skilled occupations and 33% highly-skilled occupations.



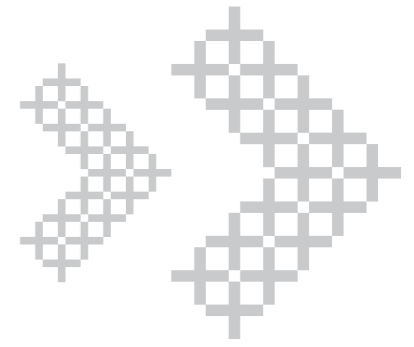
EARNINGS

Annual average earnings in the dive industry in 2016 were \$53,400. This is lower than average earnings in the total economy of \$57,780, but the highest average earnings of all the industries Skills Active engages with.



⁸⁵Highly-skilled occupations typically require a bachelor degree or higher qualification. Medium-high-skilled occupations typically require an NZ Register Diploma, an Associate Degree or Advanced Diploma. Low-skilled occupations typically require an NZ Register Level 3 qualification or lower.

Impact



Marine and aquatic activities are a vital component of Kiwi culture, and many people participate in diving recreationally. These activities have a number of positive benefits, including improved health and wellbeing, educational opportunities, and economic benefits for a local community through increased local and international tourism.

The dive industry contributed \$30 million to New Zealand's GDP in 2016. In the five years to 2016, GDP in the dive industry increased by 1.6% per annum, compared with growth of 2.5% per annum in the total economy.

The nation's marine tourism industry is growing, and draws visitors from all over the world. Over the five years to December 2016, the number of international tourists who reported they had spent time diving or snorkelling increased from 0.7% in 2012 to 3% in 2016.⁸⁶

There are many marine tourism operators, instructors and guides in New Zealand. National data relating to the direct contribution of the industry to tourism is unavailable. However, if serving as indication, Northland based Dive! Tutukaka estimates that the direct value of their tourism attraction to the local community exceeds \$50 million.⁸⁷

Dive eco-tourism opportunities in New Zealand include: explaining flora and fauna, reefs, marine reserves, seeing marine animals (whales, seals and dolphins), sighting rare organisms (black coral) and diving on sunken ships and wrecks.

The International Visitor Experience Monitor 2015 shows that New Zealand's natural environment is a key reason to visit for international visitors. Some 72% rate New Zealand's environmental management among the best (24%) or ahead of most countries (48%) in the world.⁸⁸

ECONOMIC CONTRIBUTION
\$30.2M
GDP
0.01% of New Zealand's GDP in 2016



Jen Clent
PADI Pros Oceania
Regional Manager

Diving gives people something unique. It can open up a new world. People might have challenges going on in their everyday life, but when they go underwater they disappear as they are in this amazing environment.

Our blue planet is covered in about 70% water, yet so many people haven't seen it. The more people we can introduce to the ocean, the more people will see how incredible it is, and will want to protect it.

PADI has seen years of consecutive growth in divers becoming certified, which means there is an increased requirement for professionals to work in the industry.

We need to change the perception that there are not careers in diving. It is a massively growing industry, and there are a whole lot of amazing careers out there for people who want them.

Because it is such a transferable skill set, you can work in any area in the world where there is a body of water, and can have a really substantial career here in New Zealand.

⁸⁶International Visitor Survey, Ministry of Business, Innovation and Employment, 2016
⁸⁷Visitor Experience, Tourism New Zealand, 2017

⁸⁸Marine Tourism, Fisheries and Community: Creating Barometers of Economic Change, New Zealand Tourism Research Institute, 2009

Trends/Issues/Risks

POLITICAL

Political responses to environmental concerns

There has been increased pressure for the government to address environmental policies that have a direct and indirect impact on the marine and aquatic landscape and marine tourism. Issues such as pollutants, introducing levies to address the impact of waste disposal, and international tourism impacting the environment have the potential to direct resources into the industry.

Establishing marine protected areas

Over the last decade, New Zealand has established 11 new marine reserves, and successfully negotiated with the United States to create the largest marine protected area in the world, in the Ross Sea. Establishing more marine protected areas may help attract both international and domestic visitors.⁸⁹

ECONOMIC

Increased tourism investment

The previous government announced in 2017 that it is directing an extra \$100 million in funding to tourism infrastructure, such as carparks and toilets, in outdoor recreation hotspots.

SOCIAL

Cultural development

There is potential for many more Māori to be involved in diver education and employment. Participating in the outdoor and marine environment in a cultural context develops awareness of tikanga for the coastline, the sea, river and lakes and related kawa of specific iwi and hapū within their rohe. Māori learn dive skills to gather kai moana safely. Opportunities exist for 'ruku moana' skills to be used in Māori economic activities such as cultural and adventure tourism, aquaculture and marine tourism.

Negative impacts of marine recreation

In addition to the positive social, economic and health benefits of the dive industry, there has been an increased focus on the damaging effects of marine recreation, including disturbing wildlife, damaging marine plants and animals, over-harvesting

TECHNOLOGICAL

Use of technology

Technology plays an increasingly influential and important role in the dive industry. It has had a broad impact across the following areas: access and transportation, comfort, safety, and communication. New technology, combined with skilled

Compliance pressure

The industry continues to adjust to the new health and safety requirements and adventure activity regulations.⁹⁰ Larger organisations with more resources have an advantage in transitioning to the new regime. However, those smaller operators that are proactively seeking guidance and updating their procedures and reporting, are also navigating the change effectively – with the cost and resource required for auditing and certification placing pressure on some. The updated requirements highlight the need for relevant education and qualifications surrounding health and safety.

Marine tourism is seen as an opportunity to support the tourism industry's 2025 goal of growing total annual tourism revenue from \$11.8 billion to \$41 billion over the next decade.⁹¹

resources, and pollution. The anchoring of dive boats can inflict damage on the seabed ecology. This has continued the push for sustainable practices in the industry to minimise impacts. Diver training in New Zealand does include education on environmental care; the dive industry contributes to minimising the impact by helping with clean-ups, invasive marine species removal, and bio-security surveys and checks.

Perceptions on protecting marine environments

Research on New Zealander's attitudes towards their oceans and marine reserves shows that 7 out of 10 New Zealanders think their marine environment is under threat. Furthermore, 96% of New Zealanders would like a much higher percentage of their marine environment protected than what currently is.⁹²

divers, opens up access to previously unexplored areas. In some instances, advanced technology is replacing the need for human dive skills. An example of this are the artificially-intelligent diver robots that can explore the depths of the ocean that are too dangerous for humans to attempt.⁹³

Training environment

Of the people employed in the dive industry in 2013, some 16.3% had no qualifications, compared with 13.6% of the total economy. This is down from 2006 when 20.1% of the industry had no qualifications (compared to 17.8% of the total economy).

With a wide range of highly technical roles and industry-specific

skills, and a large seasonal workforce base, on-job training is a key component of workforce development for dive operators. Some operators engage with tertiary providers for training. A number of operators are training providers, and work with schools to provide skills and experience.⁹⁴

BARRIERS TO INDUSTRY TRAINING AND QUALIFICATION COMPLETION⁹⁵

Barriers to training and completing qualifications are mainly linked to:

- The financial cost of training
- High turnover of staff
- Lack of visibility on the return on investment of training
- Workplace capability and resources to deliver training.

Skilled divers are in short supply and recruiting, whether locally or internationally, is a challenge for the industry. Of those organisations surveyed by Skills Active, 80% stated they worked with tertiary providers and schools in a bid to recruit staff.⁹⁶ The largest barrier when recruiting staff is finding work-ready applicants with the appropriate skills and qualifications. Other barriers include people not wanting to live in remote locations, low pay, and the fact that much of the work in the industry is seasonal. The number of international workers in the industry has dropped significantly. There is also a disproportionate under-representation of women in the industry.⁹⁷

CURRENT AND FUTURE SKILL NEEDS⁹⁸

The industry has identified the following current and future skill needs:

- Technical instructing skills
- Technical servicing skills
- Customer service.

The industry identified the work-readiness of potential employees as a barrier in recruitment, which could be better addressed in pre- or post-employment training.



⁸⁹Opportunity for marine tourism to benefit NZ, Tourism Industry Association, 2016 ⁹⁰Workplace Survey, Skills Active, 2017 ⁹¹Opportunity for marine tourism to benefit NZ, Tourism Industry Association, 2016 ⁹²New Zealanders' attitudes towards their oceans and marine reserves, Colmar Brunton research commissioned by WWF-New Zealand, 2011 ⁹³Humanoid diving robot hunts for sunken treasure in French shipwreck, The Guardian, 2016

⁹⁴Workplace Survey, Skills Active, 2017 ⁹⁵Workplace Survey, Skills Active, 2017 ⁹⁶Workplace Survey, Skills Active, 2017 ⁹⁷Workplace Survey, Skills Active, 2017 ⁹⁸Workplace Survey, Skills Active, 2017