



association of  
consulting and  
engineering

An aerial photograph of Auckland, New Zealand, taken at sunset. The city's skyline is visible, with numerous high-rise buildings and a dense residential area on the hills in the background. The harbor is filled with boats, and the water reflects the warm colors of the sky. A large yellow and blue geometric shape is overlaid on the right side of the image.

# consulting and engineering sector **PERSONNEL CHALLENGES** - THE ONGOING IMPACT OF COVID-19



### [about ACE New Zealand](#)

ACE New Zealand (the Association of Consulting and Engineering) is a firm-based membership association representing over 220 consulting and engineering firms that employ approximately 13,500 staff.

Their staff include engineers, project managers, planners, scientists, architects, surveyors and other technical disciplines relating to the construction and infrastructure sectors.

Our members range from large global firms to employee-owned SMEs. They are on the front line of designing and delivering critical technology, construction and infrastructure to support New Zealand's economy.

### [research overview](#)

In January and February 2021, we surveyed ACE members to understand their staffing needs over the coming 12 months and what percentage of these staff they would need to recruit from offshore based on historical patterns and forecasts of future resource needs.

We then used this data to determine the potential consulting and engineering workforce shortfall resulting from COVID-19 border restrictions.

### [response rate](#)

We received responses from 132 member firms (60% of total member firms) representing 10,919 employees (81% of total employees).

Firm size ranged from single-person businesses to large organisations employing more than 1500 staff. Responses were received from members operating in all regions, and the distribution was largely consistent with the ACE New Zealand membership profile.

The raw results obtained have had an adjustment factor applied to ensure they provide a representative picture of ACE members as a whole, not just those who participated in the survey.



## key themes

ACE members were generally optimistic about the future of the consulting and engineering sector. However, there were significant concerns around their ability to deliver critical projects in a timely, high-quality and cost-effective manner without access to suitably skilled personnel who typically reside overseas.

There was consistent commentary that it was incredibly hard to bring in specialist staff from offshore due to the border restrictions associated with COVID-19. This was the case even when people with those skill sets are currently unavailable, i.e. there may be no people with those skills in New Zealand, or people with those skills are already fully engaged and not available for additional work.

It was noted that there were even significant challenges when roles were offered to returning New Zealand citizens who have the guaranteed right of return. The constraints around MIQ places meant there were often substantial uncertainties and delays of several months before returning. Such delays are adding both time and cost to projects.

There was a universal concern that the inability to bring people in from offshore and the increased competition for personnel within New Zealand, mainly from Central Government, had the potential to impact wage inflation. However, this appears to be anecdotal at this stage and does not show in up-to-date salary data. ACE will continue to monitor this closely.

There is a genuine feeling that a focus on resourcing and MIQ spaces solely for large scale infrastructure projects or “projects of national significance” will not sufficiently address the consulting and engineering sector’s challenges. This is because there are significant skill and talent shortages across large market sectors (for example, water and transport), which are not always linked to large scale projects. Furthermore, because consultants and engineers undertake considerable activity well before construction begins, not addressing MIQ placements on a skills basis will significantly impact the future construction pipeline.

ACE members recognise that border restrictions play a critical role in New Zealand's approach to COVID-19, and are supportive of the Government's policy. They also recognise there are a finite number of spaces available in the MIQ system, and each new skilled worker brought in takes the place of someone else, such as a returning New Zealand citizen.

However, without a targeted skills-based approach to a defined number of MIQ places, the border restrictions and the resulting skills shortage will severely impact New Zealand's ability to deliver projects. We will see the time and cost to complete projects increase markedly, impacting New Zealand's productivity and broader economic outcomes. Firm and decisive action is required.

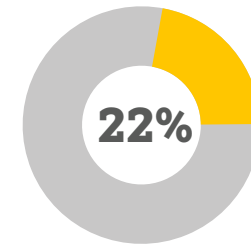


## summary of results

Over the coming 12 months, **members expect to hire 2100 staff members** to meet current and future resource needs. This number includes new positions as well as replacing attrition.

The percentage of staff typically hired from overseas varies greatly depending upon the firm size, the nature of the work undertaken, and the forward pipeline's complexity. Increasingly more and more staff are being brought in from offshore due to the changing nature of work and the lack of suitably skilled local expertise.

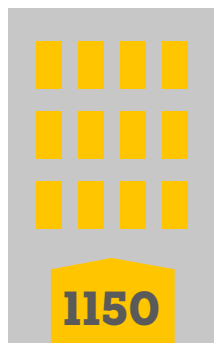
It should be noted, the largest 15 firms in ACE's membership employ almost 75% of sector employees and are engaged in larger-scale construction and infrastructure activities. Typically these firms recruit a more significant percentage of overseas personnel.



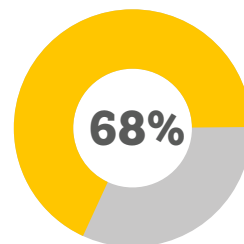
When we account for firm size, our data suggests we would expect approximately **22% of the 2100 new staff to be recruited overseas.**



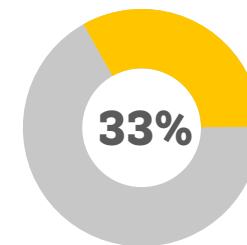
This represents a total of **460 overseas-based individuals needed to meet current and projected firm needs.**



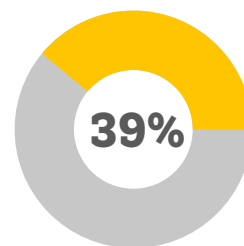
We must also consider many of these individuals would be reluctant to move to New Zealand without their family accompanying them. If we assume, based on experience, an additional 1.5 family members per recruited individual, this would suggest a total requirement for the consulting and engineering sector of up to **1150 MIQ places for the coming 12 months.**



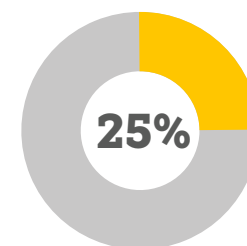
68% of firms either have concerns or are unsure whether they will be able to recruit enough suitably qualified staff to meet current and future resource needs.



33% of firms have experienced increased competition for personnel within the New Zealand market. Particularly from Central Government and Local Government.



39% of firms have already experienced challenges finding suitably qualified staff within the New Zealand market.



25% of firms have directly experienced challenges with Immigration New Zealand when attempting to bring suitably qualified staff into New Zealand.

### top skill shortage areas

A consistent theme amongst virtually all respondents was that it was incredibly challenging to recruit intermediate to senior people with significant relevant experience. In particular, people with 10 years + experience and those holding or with the ability to gain chartered status or equivalent.

Members recognised the need to train and upskill their existing personnel; however, while training can address some areas of need, it's certainly not a comprehensive or short term solution.

When members were asked to rate the top skill areas where they were facing challenges, the results were as follows:

1

**Civil engineers at intermediate to senior level.**

Emphasis on the transport and water sectors.

2

**Structural engineers at intermediate to senior level.** Across a range of market sectors.

3

**Geotechnical engineers at senior level.**

4

**Draftspeople, designers and technicians, at intermediate to senior level.** Emphasis on CAD and Revit.

5

**Fire engineers at intermediate to senior level.**

There were also many niche or specialised areas, that while the demand wasn't significant in terms of raw numbers, the lack of these skills in the marketplace was still material to particular market sectors. This included Electrical Design Engineers, Dam Engineers, Façade Engineers, Rail Engineers, Surveyors and Traffic Planners.





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