

## **Civil Contractors New Zealand submission to Statistics New Zealand on the use of industrial classifications**

**To:** Statistics New Zealand

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### **About Civil Contractors New Zealand**

Founded in 1944, Civil Contractors New Zealand is an industry association representing the interests and aspirations of more than 840 member organisations, including 535 large, medium-sized, and small businesses in civil engineering, construction, and general contracting. Our 305 associate members provide valuable products, support, and services to contractor members. We live and work in all communities across New Zealand.

Our members play a vital role in the development of our country, our economy, and our way of life. They build and maintain the roads connecting our cities and towns; they install and care for the water networks that bring fresh water to houses and wastewater to treatment plants; they install the cables that bring the internet to homes and businesses. These are services a modern and developed economy must have to compete efficiently in world markets and to deliver high living standards for all New Zealanders.

The broad civil construction industry employs more than 60,000 people and undertakes projects worth around \$10b to \$12b annually. More specifically, our organisation represents the contractors who carry out the physical construction works on country's roading, rail, port, and public transport networks.

CCNZ thanks Statistics New Zealand for the opportunity to submit on industrial classifications.

### **Executive summary**

Civil Contractors New Zealand believes this submission is important, and that very poor outcomes for infrastructure investment, workforce support and training are happening place because of the current structure.

This data forms the basis for government decision making, and it has the potential to be misleading and lead to wasteful spending if it is unstructured. When decisions are made, these codes are used to show the scale of the industry and workforce, and make critical funding decisions in education, work programme and more.

We currently use the ANZSIC codes to gauge workforce scale, and align with key education and immigration settings – a process rendered very difficult by inadequate descriptions and misunderstandings over what the codes are.

Our submission is based around the following key points:

**Decision making is presently based on misrepresented statistics.**

Under the current classification, we believe construction information is misrepresented by the current system, and horizontal construction in particular is grossly under-reported, with the majority of horizontal construction roles reported as ‘construction services’.

This information is being used to make critical decisions around infrastructure investment, workforce training and more, so it is important the data is presented in an accurate way that is not misleading.

Intuitively, the category E31 ‘Heavy and Civil Engineering Construction’ should describe the industry. However we have seen this summarised by researchers as between 16,000 and 28,000 workers fall under this heading, and the majority of earthmoving and excavation roles, which we would classify as ‘civil construction’ are currently falling under the nondescript title ‘E32 - Construction Services’, which is made up of more than 169,000 workers, and even includes the title ‘Earthmoving Contractor’!

We submit that the true size of the horizontal construction industry may be several the number reported under Heavy and Civil Engineering Construction, which relates primarily to road surfacing, water pipeline installation and bridge construction.

To an outside observer, Construction Services could just as easily mean a construction accountant. Because of this lack of description, we have seen academic reports, advice from government ministries and political decision makers referring to the civil construction industry based on ‘E31 – Heavy and Civil Engineering Construction’, rather than looking at the industry in its full scope. This issue extended to the data gathered by the former Regional Skills Leadership Groups.

For example, under the current classification system, trenching, earthmoving and excavation is defined under ‘Construction Services’, yet these are some of the primary tasks performed by horizontal construction companies, whether they are constructing farm tracks, seawalls and stopbanks, or roads or building foundations.

**Submission point:** We propose removing the ‘E31 - construction services’ classification entirely, and splitting the construction industry by ‘Commercial Construction’, ‘Horizontal Construction’ and ‘Residential Construction’. This would align with the way the construction industry and decision makers view construction.

(see appendices for more detail on E31 and E32)

### **Roles should be based on activities, rather than tasks**

It's important that the activities reflect the work people are actually doing, rather than the tasks they do or the equipment they use. Road Traffic Controller seems appropriately descriptive, whereas 'road roller operator' simply describes one of the tasks a multi-skilled civil tradesperson would be expected to perform on a work site.

**Submission point:** Reconsider the use of task or equipment-based role titles, i.e. 'roller operator', in favour of the work the person is actually doing, i.e. 'pavement construction worker', 'pipeline construction worker', etc.

### **The appropriate caveats for data are not being presented when data is used**

Data is often used without context or appropriate caveats. This is not entirely the fault of Statistics New Zealand, however more readily available descriptive information on the meaning of classifications would better support researchers and decision makers.

Whatever happens, it's important to use appropriate caveats when using this data as it is not straightforward. It needs to be presented in a way that can be universally understood, and isn't causing inaccuracies.

Because we consider the data generated through the ANZSIC and ANZSCO codes to be unreliable, we find scoping our workforce needs to be very challenging,

### **Side note – use of the IDI**

Interestingly, researchers using the [Integrated Data Infrastructure \(IDI\)](#) seem to be able to construct more accurate reports, but use of the IDI is not transparent to people outside of those with access to it.

While we are unfamiliar with using the IDI, if it is significantly more accurate (as seems to be the case), it seems appropriate to instruct government to make decisions based on that data set. We are unsure what this would mean in the context of the review of ANZSIC codes.

### **Focus points in further detail**

CCNZ sees significant issues with the current system, which fall broadly under the following:

- A mention that many of the roles mentioned in the current ANZSIC and ANZSCO codes are task-based, whereas a worker may be doing a wide variety of the tasks described.
- Because of this, we hesitate to call for more 'granularity'.

For instance, a 'roller operator' is likely to also operate other compaction equipment, or a team of people may rotate across the equipment. This renders the task-based title 'roller operator' irrelevant, as what they do on the sites is likely to be needs-based, and they may be operating a wheel loader one day and a roller another.

Civil tradespeople are multi-skilled, and trade roles are closer to what's described on the Civil Trades website, which can be viewed at [www.civiltrades.co.nz](http://www.civiltrades.co.nz). We would like to see a move towards more accurate description of what a worker is doing,

rather than tying them back to one of the many tasks they may be doing on the job.

We submit that the roles should better sum up the multiple skills held by a civil tradesperson (i.e. pavement construction worker, road surfacing worker, pipeline construction and maintenance worker) rather than be based on a specific piece of equipment they are using to do this work.

- When decisions are made, these codes are used to show the scale of the industry and workforce, and make critical funding decisions in education, work programme and more.

The industry largely defines itself in terms of the work programme as vertical construction (commercial buildings ), horizontal construction (civil – roads, bridges, pipeline construction, ports, airports, public spaces, etc) and residential construction (houses).

These are roughly equal in terms of annual spend, and are likely to be better distinctions to use in the classifications, although will inevitably be some crossover, as the civil works enable the vertical construction.

The use of the term 'E32 - Construction Services' in the current setup is not appropriate, because it is not adequately descriptive of the work. We suspect this distinction may be causing big issues for decision makers getting an accurate picture of New Zealand's infrastructure work programme..

We wonder if the lack of education investment is a direct result of the attribution of a massive proportion of the civil construction workforce to 'E32 - Construction Services' (169,000 workers), with decision makers deciding funding based on 'E31 - Heavy and Civil Engineering Construction', which is around 16,000 workers.

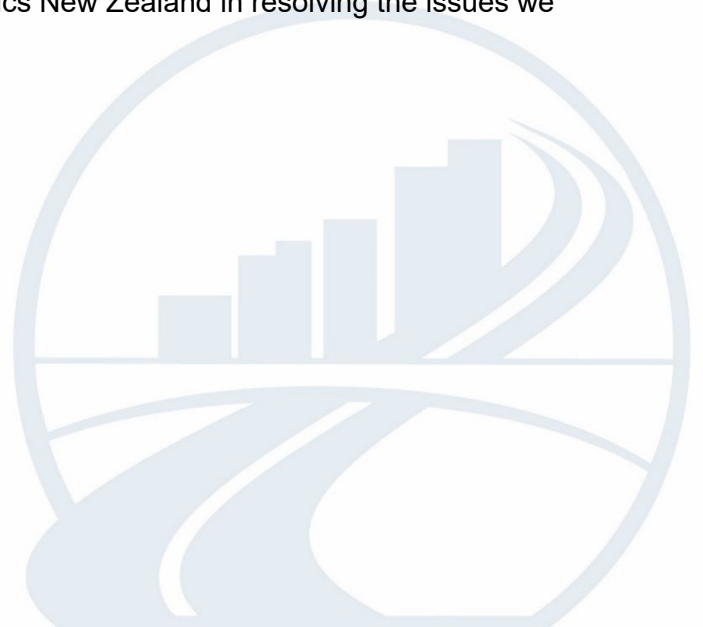
- Rationalising the relevant roles provided by industry against the ANZSIC codes takes some interpretation, and industry role titles advertised don't align with the ANZSIC codes in many places. This causes particular issues around recognition of migrant skills, and we are happy to provide more information as needed.

Thank you once again for the opportunity to make this submission.

We stand ready to support the work of Statistics New Zealand in resolving the issues we have mentioned above.

Kind regards,

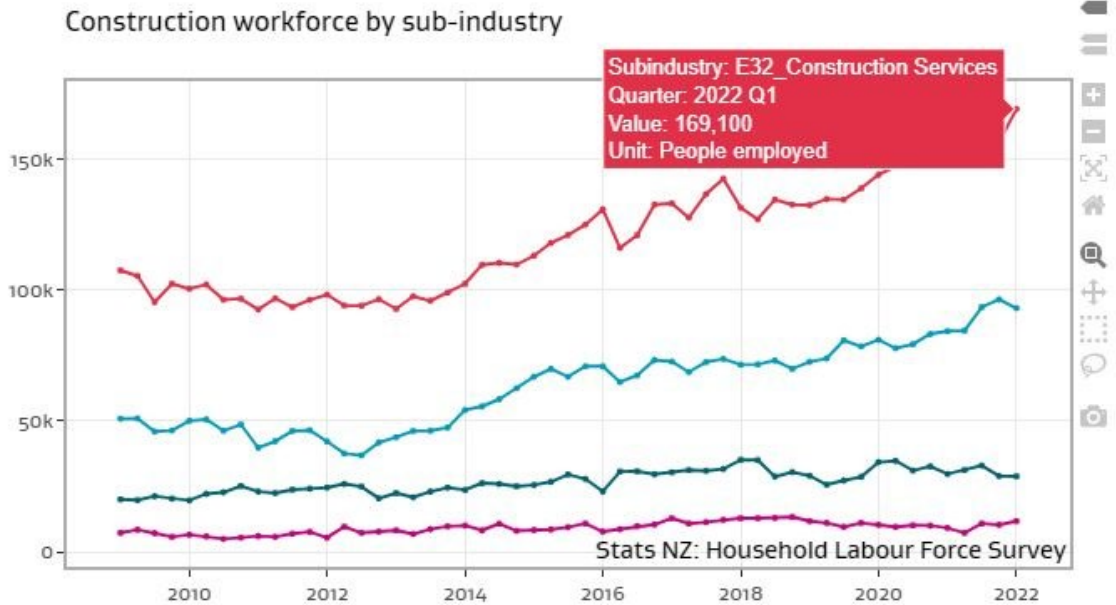
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## Appendix 1 – ‘E32 – Construction Services’ scale

### 2.2 Construction workforce by sub-industry

Select sub-industries



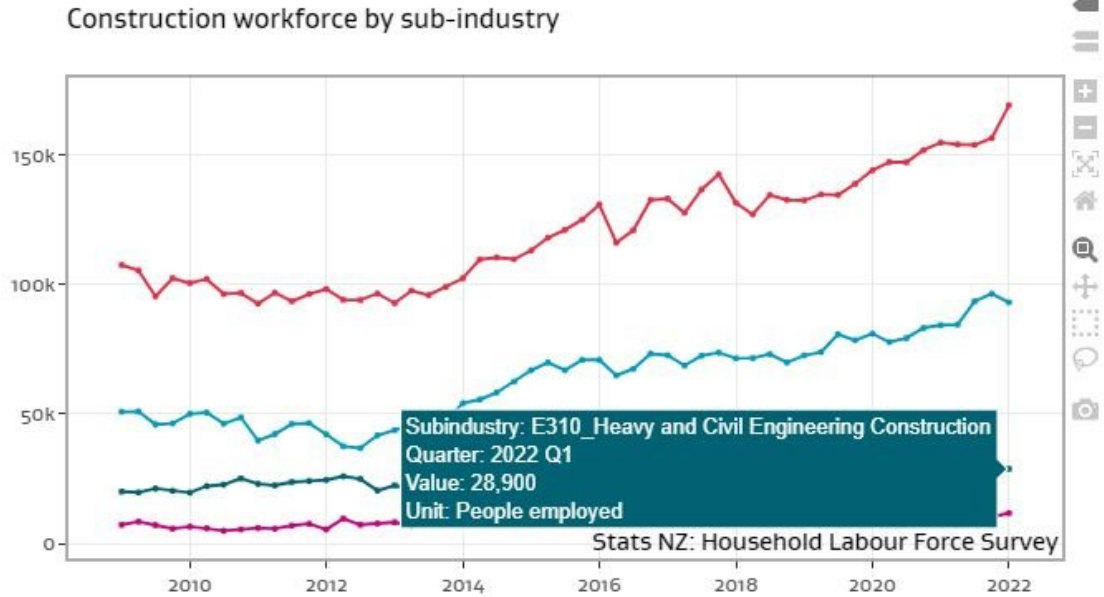
## Appendix 2 – ‘E31 – Heavy and Civil Engineering Construction’ scale





## 2.2 Construction workforce by sub-industry

Select sub-industries



### Appendix 3 – screenshot of ‘E32 – Construction Services’ roles

**Australian and New Zealand Standard Industrial Classification 2006 V1.0.0**

Overview [Browse](#) [Advanced Usage](#) [Discussion](#)

- > **D** Electricity, Gas, Water and Waste Services [4]
- > **E** Construction [3]
  - > **E30** Building Construction [2]
    - > **E301** Residential Building Construction [2]
    - > **E302** Non-Residential Building Construction [1]
  - > **E31** Heavy and Civil Engineering Construction [1]
    - > **E310** Heavy and Civil Engineering Construction [2]
  - > **E32** Construction Services [5]
    - > **E321** Land Development and Site Preparation Services [2]
      - E321100** Land Development and Subdivision
      - E321200** Site Preparation Services
    - > **E322** Building Structure Services [4]
      - E322100** Concreting Services
      - E322200** Bricklaying Services
      - E322300** Roofing Services
      - E322400** Structural Steel Erection Services
    - > **E323** Building Installation Services [5]
    - > **E324** Building Completion Services [5]
    - > **E329** Other Construction Services [3]
      - E329100** Landscape Construction Services
      - E329200** Hire of Construction Machinery with Operator
      - E329900** Other Construction Services n.e.c.

**E321200. Site Preparation Services**

Labels [Synonyms \(52\)](#) [Mappings](#) [Definition](#)

- Earthmoving Contractor
- Removal of overburden
- Ditch digging construction
- Earthmoving
- Excavating
- Explosives laying
- Ground dewatering
- Harbour reclamation
- Hiring earthmoving plant with operators
- Land clearing (not agricultural)
- Land development construction
- Land levelling construction
- Land reclamation
- Mine site preparation
- Trench digging construction
- Demolition of buildings or other structures