

CAREER PERCEPTIONS OF THE CONSTRUCTION & INFRASTRUCTURE INDUSTRIES

Quantitative Results



WAIHANGĀ ARA RAU

Construction and
Infrastructure

Workforce Development Council



GAME CHANGERS



Prepared for Waihanga Ara Rau

2 May 2024

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BACKGROUND, OBJECTIVES & METHODOLOGY

1



WAIHANGARA RAU
Construction and
Infrastructure
Workforce Development Council

BACKGROUND & OBJECTIVES

The Waihangara Ara Rau (Construction & Infrastructure) Workforce Development Council is responsible for developing and maintaining qualifications, unit standards, and micro-credentials for the construction and infrastructure industries, ensuring professionals are equipped with the right skills and knowledge to excel.

By constantly refining and updating qualification content in partnership with industry and providers, the Council's goal is a highly competent and agile workforce.

The Workforce Development Council (WDC) and related stakeholders need to understand how to better attract new entrants into the construction and infrastructure sectors, which collectively represent almost 60 subsectors and thus a lot of variety and opportunity for workers of all types. Yet, this variety is not widely known – a key issue with the construction and infrastructure sector's appeal as a career choice is a lack of knowledge about what it can offer.

We know from Ipsos's Building and Construction Industry Training Organisation (BCITO) research that the prevailing view of the sector being just for hands-on tradies such as builders is holding back people's consideration of such careers, as well as hindering others' consideration of the sector.

Therefore, there is a need for an up-to-date measure of what WDC's 'target market' knows about the career opportunities within the construction and infrastructure sectors, combined with a measure of what they are seeking in an ideal job.

By delivering such information to the WDC, this report aims to guide sector organisations such as industry training organisations (ITOs) and the Tertiary Education Commission (TEC) on how best they can attract potential sector workers and apprentices – essentially 'what to say and to whom' to increase uptake.

Key Objectives:

- Investigating the current level of knowledge, awareness, and consideration of careers in construction, engineering, and civil infrastructure.
- Investigating how the results vary between key ethnic groups of interest and people at different career stages (e.g. Students, Young Adults and Millennials / Early Mid-Lifers).
- Whenever feasible, contrasting the present findings with historical data from BCITO.

QUANTITATIVE METHODOLOGY



Fieldwork Dates

21 Feb–12 Mar 2024



Sample Provider

This research was conducted via
an online panel survey using a

blend of panels including the Ipsos and those aged 45+ with children i-Say panel plus approved, **Average interview duration**

Region

reputable partners. Panels where 8 minutes Nationwide all panellists have to be aged 18+ targeted parents
/ caregivers of
children aged 13-17, asking them



Sample Size

Interviews completed
n=1,000



Sample Profile Target sample

NZ Students, Millennials, Early- / Mid-Lifers,

to get their children to complete a questionnaire.

SURVEY SAMPLE PROFILE

SAMPLE SIZE



Total sample: n=1,000

GENDER

	n=	%
Male	445	44%
Female	544	54%
Another gender	11	1%

ETHNICITY

(Sum exceeds total sample as people
can have more than one ethnicity)

	n=	%
Māori	188	19%
Pacific People	127	13%
Asian	212	21%
NZ European	619	62%
Other	75	7%

REGION



n= %

Young Students (10–13 years) 141 14%

Older Students (14–17 years) 145 15%

Young Adults (18–25 years) 232 23%

Millennials (26–34 years) 305 31%

Early Mid-Lifers (35–44 years) 155 16%

LIFE STAGES

	n=	%
Older Parents (45+ years with children)	22	2%

PARENT / CAREGIVER FOR:

(Sum exceeds 1,000 as people can be caregivers for children in both age groups)

	n=	%
10-13-year-olds	276	28%
14-17-year-olds	195	20%
None of the above	608	61%

Northland	26	3%
Auckland	400	40%
Waikato	87	9%
Bay of Plenty	65	6%
Gisborne	6	1%
Taranaki	25	2%
Manawatū-Wanganui	46	5%
Hawke's Bay	22	2%
Wellington / Hutt / Porirua / Kapiti / Wairarapa	109	11%
Marlborough	2	0%
Nelson	13	1%
Tasman	6	1%
Canterbury	128	13%
West Coast	4	0%
Otago	46	5%
Southland	15	1%

SURVEY SAMPLE PROFILE

Priority Groups	Māori	Pacific Peoples	Asian	NZ European age group	Total per
10–13 years	32	22	34	84	141
14–17 years	29	18	25	95	145
18–25 years	42	32	52	145	232
26–34 years	58	40	67	183	305
35–44 years	19	12	31	97	155

45+ years with children	7	3	3	14	22
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QUOTA MANAGEMENT TABLE

PRIORITY GROUPS

Students: Individuals aged 10–17 years of diverse ethnicities, such as Māori, Pacific Peoples, Asian, and NZ European.

Young Adults: Individuals aged 18–25 of diverse ethnicities, such as Māori, Pacific Peoples, Asian, and NZ European.

Millennials / Early Mid-Lifers: Individuals aged 26–44 of diverse ethnicities, such as Māori, Pacific Peoples, Asian, and NZ European.

	Māori	Pacific Peoples	Asian	NZ European
Total per ethnic group	188	127	212	619

SURVEY SAMPLE PROFILE

CURRENT SITUATION & AGE CURRENT SITUATION & ETHNICITY

	10–13 years (n=141)	14–17 years (n=145)	18–25 years (n=232)	26–34 years (n=305)	35–44 years (n=22)
At primary school	26%	NA	NA	NA	NA
At intermediate school	44%	3%	NA	NA	NA
At secondary school	30%	84%	1%	NA	NA
Being home-schooled	1%	3%	1%	0%	0%
Studying at university / polytechnic / other institution	0%	4%	35%	6%	2%
In an apprenticeship / workplace training	0%	1%	4%	1%	0%
Working in paid employment	0%	2%	43%	66%	70%
Unemployed & looking for work	0%	1%	10%	8%	6%
On a non-work-seeking benefit (e.g. sickness)	0%	0%	0%	1%	1%
Full-time caregiver / raising children	0%	0%	1%	12%	14%

	Māori (n=188)	Pacific Peoples (n=127)	Asian (n=212)	NZ European (n=619)	Other (n=75)
At primary school	6%	2%	4%	5%	5%
At intermediate school	12%	11%	10%	6%	15%
At secondary school	18%	22%	15%	18%	12%
Being home-schooled	1%	0%	1%	1%	0%
Studying at university / polytechnic / other institution	9%	12%	15%	11%	4%
In an apprenticeship / workplace training	3%	2%	0%	2%	0%
Working in paid employment	34%	32%	45%	43%	41%
Unemployed & looking for work	6%	10%	6%	4%	7%
On a non-work-seeking benefit (e.g. sickness)	1%	1%	0%	1%	1%
Full-time caregiver / raising children	8%	4%	2%	8%	9%

Travelling / OE / not working	0%	0%	0%	0%	0%
Retired	0%	0%	0%	0%	1%
Something else	0%	1%	3%	2%	4%

Travelling / OE / not working	0%	0%	0%	0%	1%
Retired	0%	1%	0%	0%	0%
Something else	2%	3%	1%	1%	4%

QB1: Which of the following best describes what you are currently doing?

CONCLUSIONS AND RECOMMENDATIONS

2



CONCLUSIONS

- We have found that there is widespread openness to changing careers and also a large proportion of Students and Young Adults yet to decide upon their careers (or open to changing them). This is encouraging for organisations such as WDC who wish to widen the pool of potential workers.
- We have also found that the top desires people have for their careers are those where WDC's sectors of interest can be highly competitive – *good pay, feeling valued, potential for development, and interesting work*. We have also revealed that these sectors are regarded with a lot of admiration and respect – the people working in them being seen as smart and fit, the work respectable and well rewarded. This is despite the fact that actual self-rated understanding of what careers in these sectors are like is very low.
- However, people also place great stock on a *positive work–life balance*, and construction careers are seen as quite lacking in this regard – this remains a key image problem to address.
- In addition, despite gradual improvements in perceptions across the 2018 -2023 BCITO surveys, careers in sectors such as construction, engineering, and civil infrastructure still suffer from an image problem compared to more attractive options like business, law, IT, and government jobs. This poor image reflects a duo of stereotypes, in which construction, engineering, and infrastructure workers are seen as either highly physical 'tradie'-types or highly intelligent STEM graduates.
- Hence the biggest barrier is *people thinking they are not smart or physical enough* to consider such sectors.
- For older people, the mental challenge is exacerbated by the *perceived costs* (presumably of tertiary study) and *personal circumstances* that would make the logistics of re-skilling difficult.
- In conclusion, work remains necessary to shift misconceptions and promote much broader, more accurate awareness of the array of careers available in the construction, engineering, and civil infrastructure sectors. Providing accessible information on the *variety of specialisations, skill requirements, and training pathways* (especially for post-school adults or potential career switchers) would boost consideration. Emphasising achievements in *work–life balance* would also help overcome a key deterrent.

RECOMMENDATIONS

- **Work remains necessary** to shift misconceptions and to promote much broader, more accurate awareness of the array of careers available in the construction, engineering, and civil infrastructure sectors.
- **Boosting consideration** will require providing more accessible and convincing information on:
 1. **The variety of specialisations** – to demonstrate that these sectors can provide careers that offer good pay, valued & respected roles, and interesting work that offers potential for ongoing development.
 2. **The variety of skill requirements** – to demonstrate the wide variety of personal abilities that can be used within the sectors, regardless of age or previous performance.
 3. **The training pathways available** - to provide clear information on how financial and logistical challenges can be eased, especially for postschool adults or potential career switchers.
 4. **The work–life balance that can be achieved.**
 5. **The breadth of people who can be employed across all roles** - to help reduce the stereotypes that still exist and which may be limiting people's horizons.

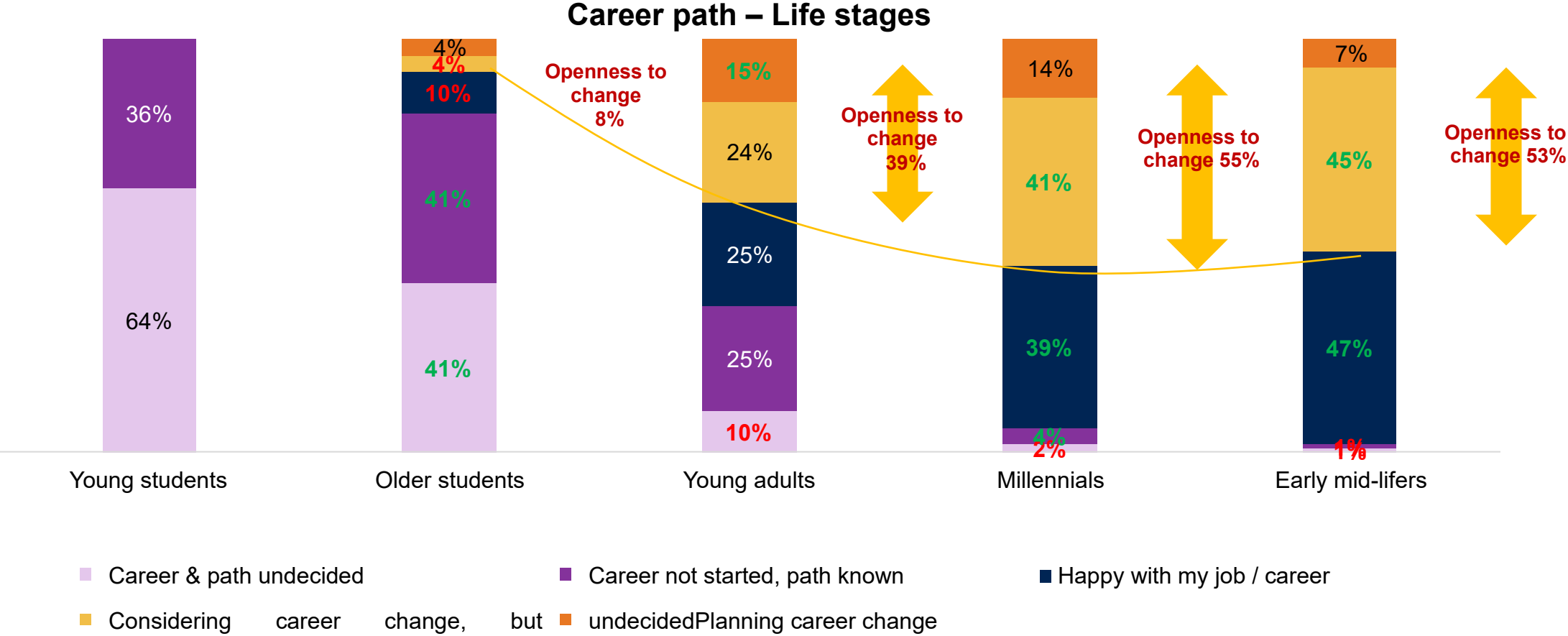
CAREER DECISION - MAKING

3



CAREER DECISION STAGE

Although career happiness increases with age, so too does openness to change.



QB2a: Thinking about your current or future career path, which option best describes you?

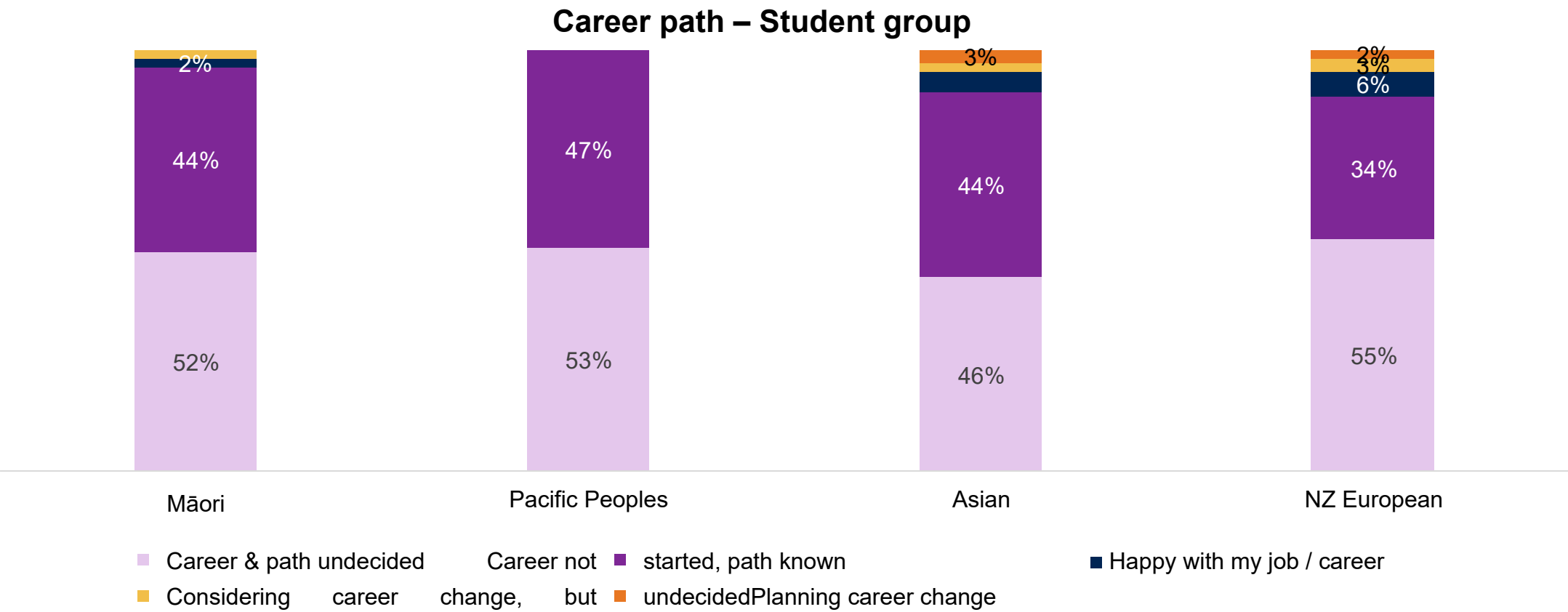
Base: Total sample (n=862) – Young Students (n=141), Older Students (n=145), Young Adults (n=211), Millennials (n=244), Early Mid-Lifers (n=121)

Standard significance testing at 95% confidence level applied:
green /red indicates a statistically significant *increase/*
decrease compared to the total

CAREER DECISION STAGE



Regardless of ethnicity, a small majority of Students aged 14–17 have yet to commit to a career path.



CAREER DECISION STAGE

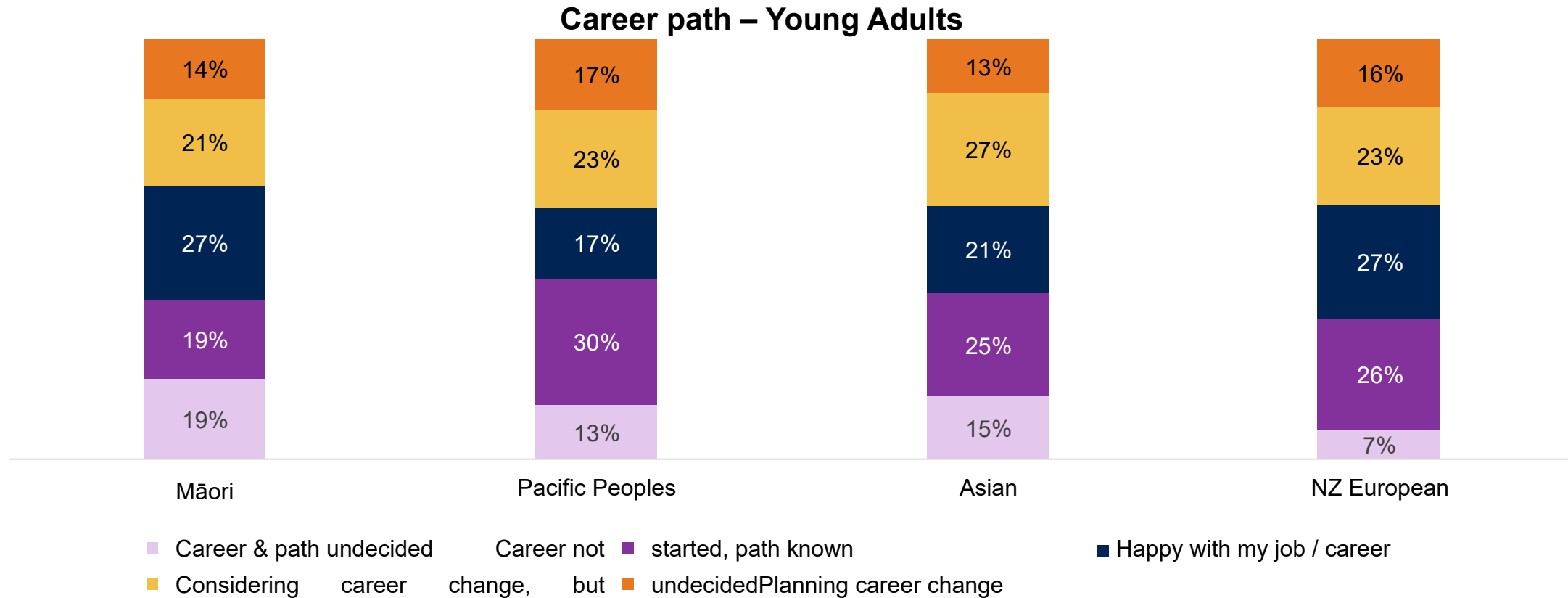
QB2a: Thinking about your current or future career path, which option best describes you? / Which of the descriptions below best matches you?

Base: Total Students (n=273) – Māori (n=61), Pacific (n=40), Asian (n=59), NZ European (n=180)

There are no significant differences amongst the four ethnicities regarding Young Adults' current career paths.

Young Students were not shown the following statements:

- Happy with my job career
- Considering career change, but undecided
- Planning career change



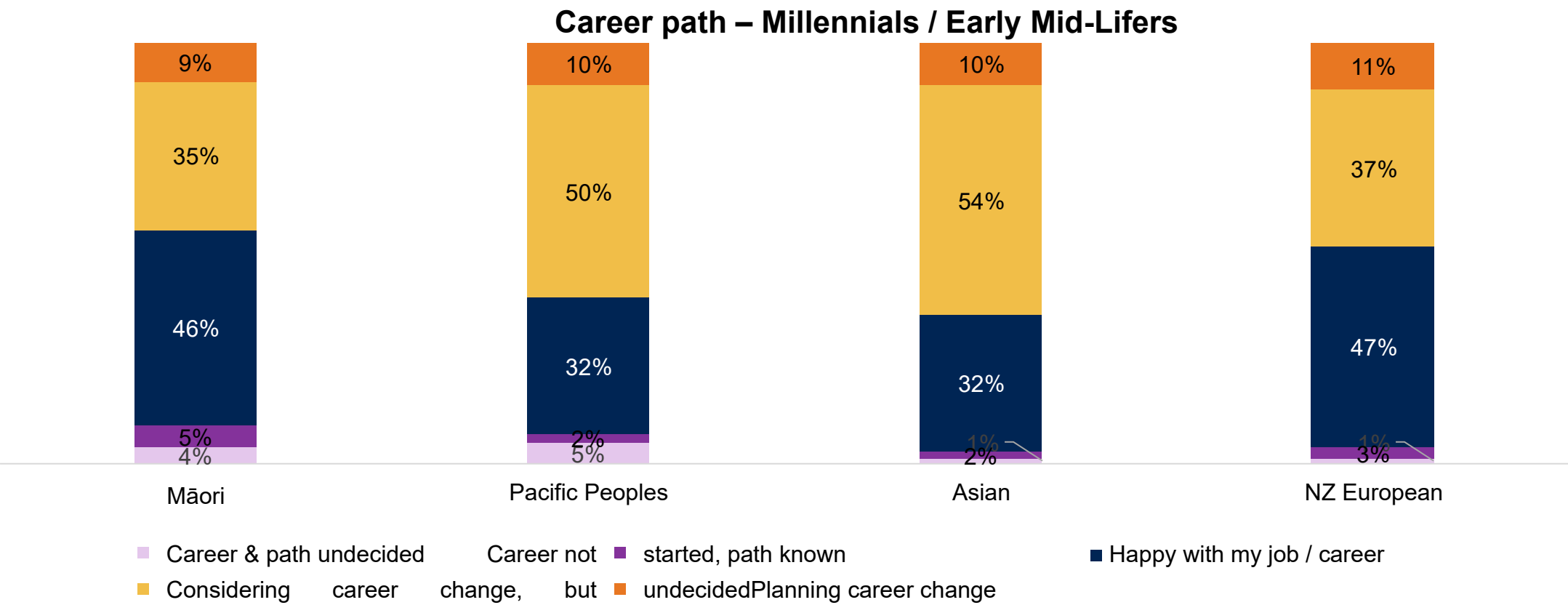
Base:

CAREER DECISION STAGE



QB2a: Thinking about your current or future career path, which option best describes you?
Total Young Adults (n=208) – Māori (n=37), Pacific (n=30), Asian (n=49), NZ European (n=136)

Pacific & NZ European Millennials / Early Mid-Lifers are the most open to career changes.



QB2a: Thinking about your current or future career path, which option best describes you? / Which of the descriptions below best matches you?
Base:

CAREER DECISION STAGE

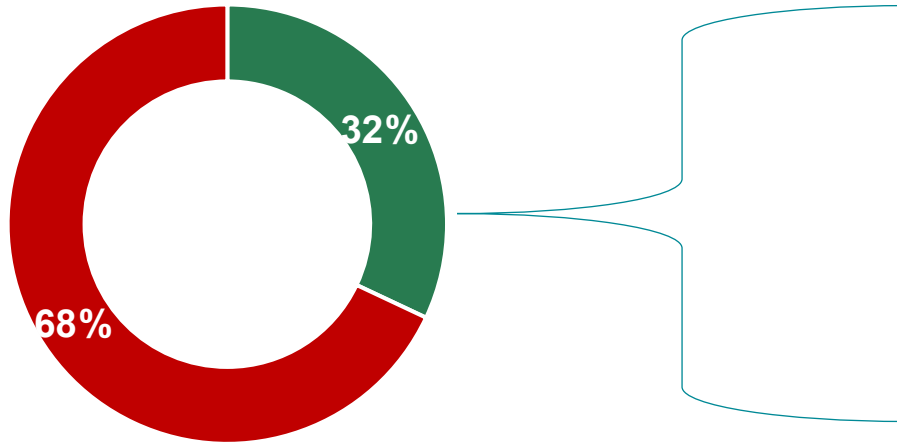
Total Millennials / Early Mid-Lifers (n=340) – Māori (n=53), Pacific (n=40), Asian (n=88), NZ European (n=218)

Base:

CAREER DECISION STAGE

Most Older Parents believe their children are uncertain regarding their future career ambitions, with the greatest degree of reported career certainty understandably arising at Year 13.

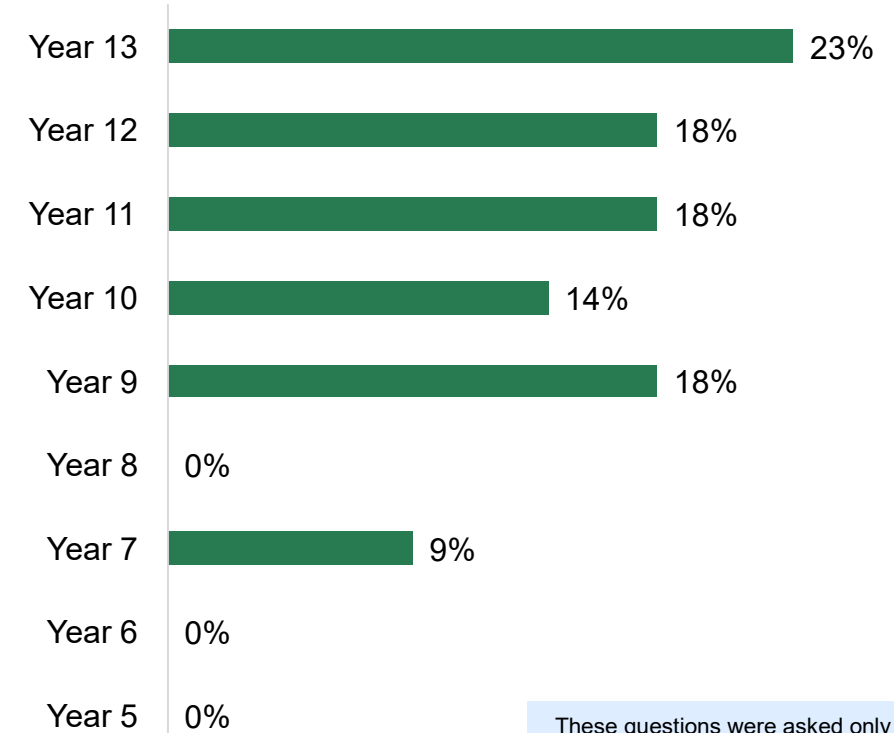
Career aspiration of eldest child



- Child already knows the career path he / she wants to follow
- No decision has been made yet

Base:

Eldest child's school year



These questions were asked only of Older Parents (45+ years with a child).

QB2b: Thinking about your oldest child still at school, does he / she have a firm idea of what job or career he / she wants to do after school? / **QB2C:** Still thinking about your oldest schoolchild, what year of school are they currently in? Older Parents (n=22*). ***Caution:** Low base size (n<30).

Base:

26— © Ipsos | Career Perceptions of the
Construction & Infrastructure Industries

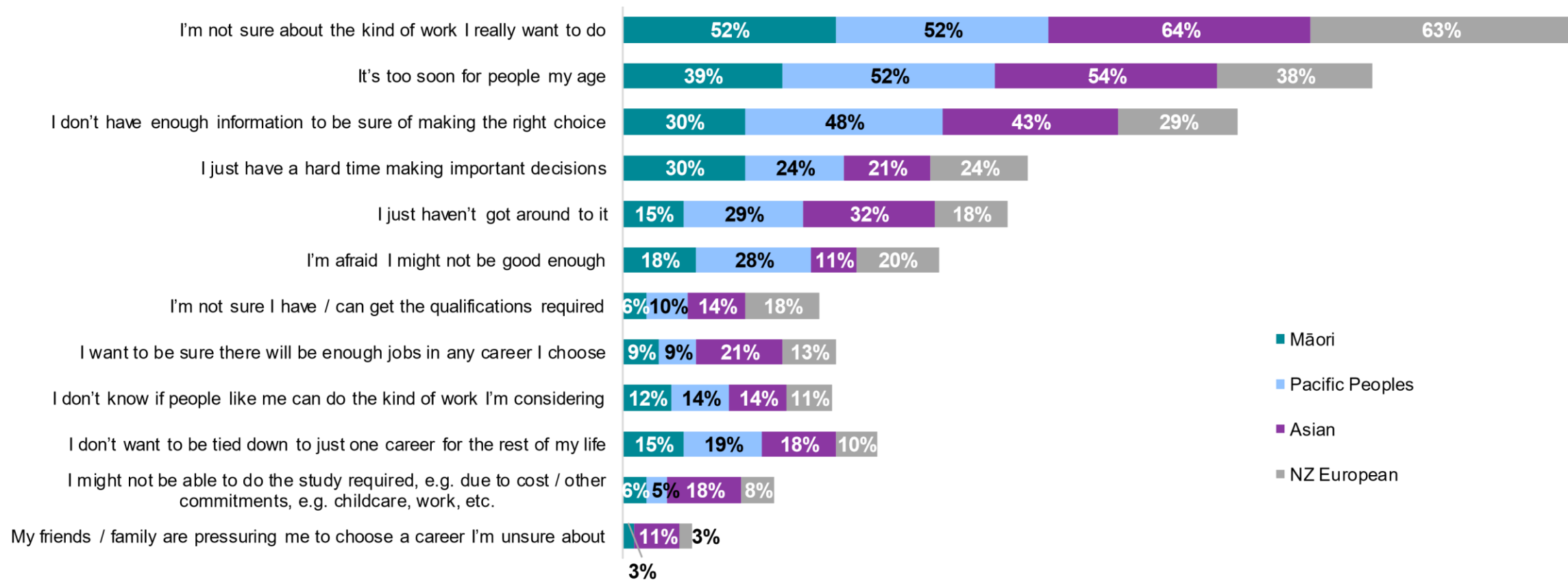
CAREER DECISION STAGE



The primary cause of career indecision among Students across all four ethnicities stems from their *uncertainty regarding the type of work they really want to do*, which presents an opportunity to promote construction careers.

Career indecision – Students

Base:



QB3: Which of the reasons below best explain why you have yet to decide upon a career?

Total undecided Students (n=149) – Māori (n=33), Pacific (n=21*), Asian (n=28*), NZ European (n=105). ***Caution:** Low base size (n<30).

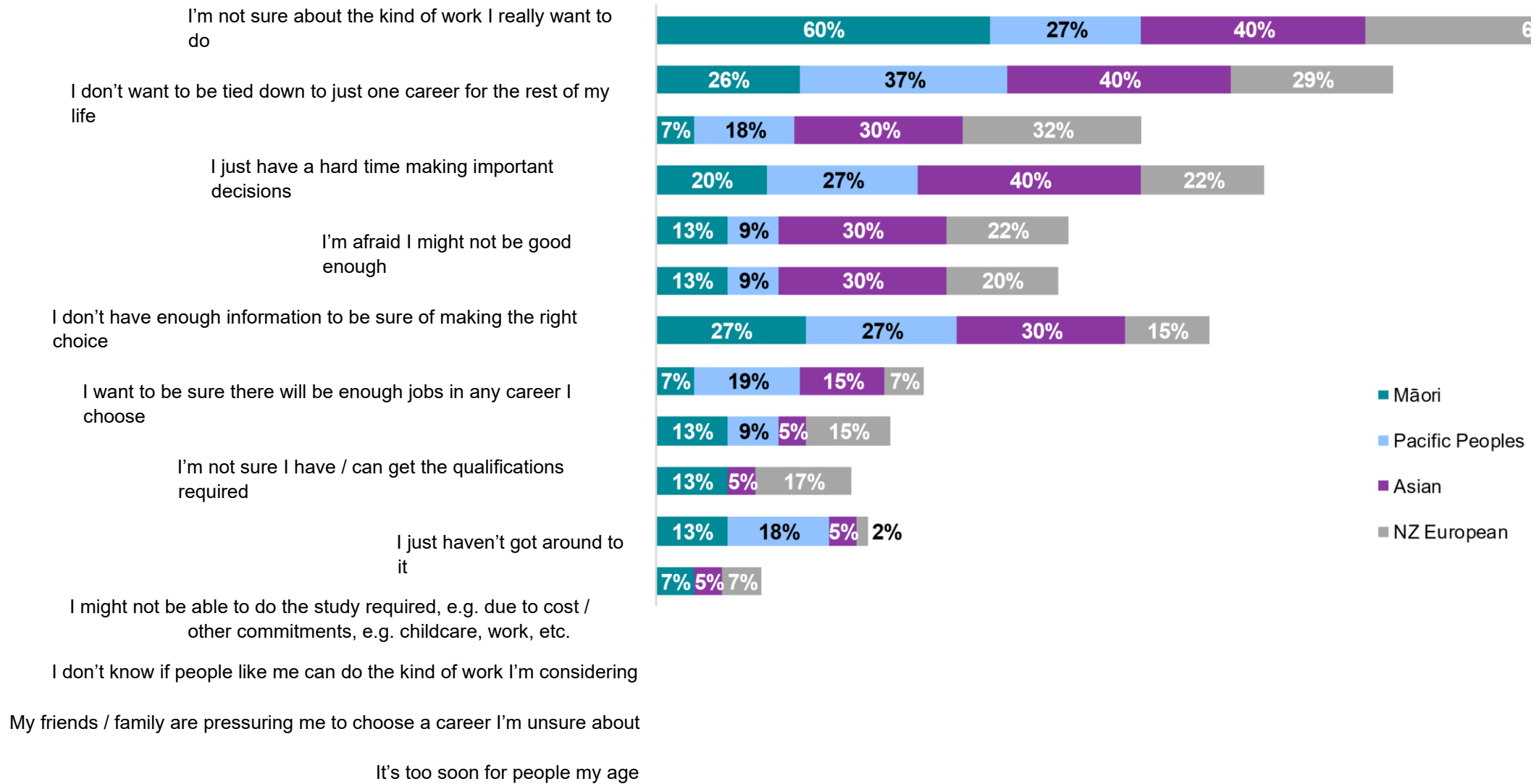
Base:

CAREER DECISION STAGE

Like Students, the cause of career indecision among Young Adults across all four ethnicities lies in their *uncertainty about the nature of work they wish to pursue*. This ambiguity might stem from the wider array of career options available to this demographic, making the decision-making process more complex.

Career indecision –Young Adults

Base:



Base:

QB3: Which of the reasons below best explain why you have yet to decide upon a career?

Total undecided Young Adults (n=71) – Māori (n=15*), Pacific (n=11*), Asian (n=20*), NZ European (n=41). ***Caution:** Low base size (n<30).

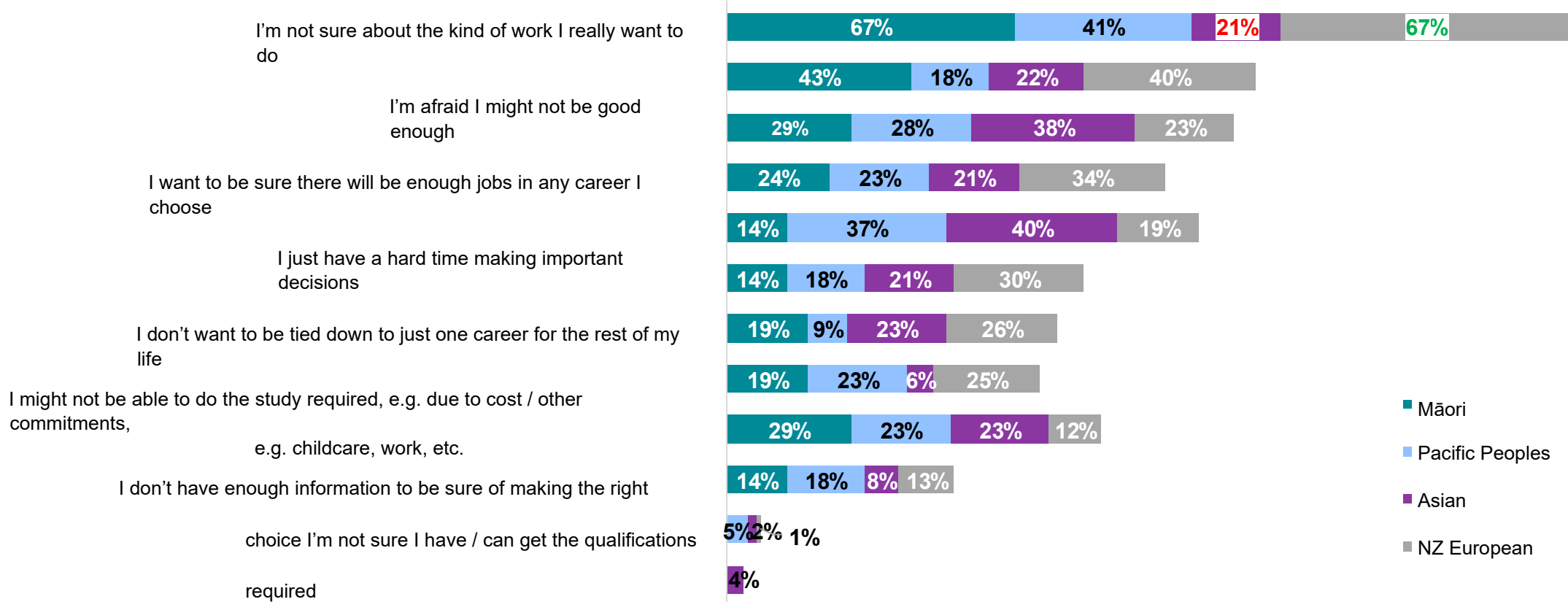
Base:



CAREER DECISION STAGE

NZ Europeans Millennials / Early Mid-Lifers are significantly more likely to be indecisive about their career due to *uncertainty about the kind of work they want to pursue*, in contrast to the Asian group. This difference could be due to cultural factors, as family influences often play a major role in career decisions within Asian cultures (thus reducing uncertainty). **Career indecision**

– Millennials / Early Mid-Lifers



I just haven't got around to it

I don't know if people like me can do the kind of work I'm considering

It's too soon for people my age

My friends / family are pressuring me to choose a career I'm unsure about

QB3: Which of the reasons below best explain why you have yet to decide upon a career?

Base: Total undecided Millennials / Early Mid-Lifers (n=150) – Māori (n=21*), Pacific (n=22*), Asian (n=49), NZ European (n=83). ***Caution:** Low base size (n<30).

Standard significance testing at 95% confidence level applied:
green / red indicates a statistically significant **increase / decrease** compared to the total

CAREER DECISION-MAKING: KEY POINTS

There is a lot of openness to new sectors & careers, but also some barriers to overcome.

People's satisfaction with their career trajectory tends to increase across the age groups we covered, peaking at 47% among Early Midlifers.

However, a significant proportion, 55% of Millennials and 52% of early mid-lifers, remain open to changing careers.

Among younger demographics, there is a pronounced career openness due to their early stage in career exploration and lesser sunk costs.

The indecision among students primarily stems from uncertainties about their career preferences, insufficient information, and difficulties in decision-making.

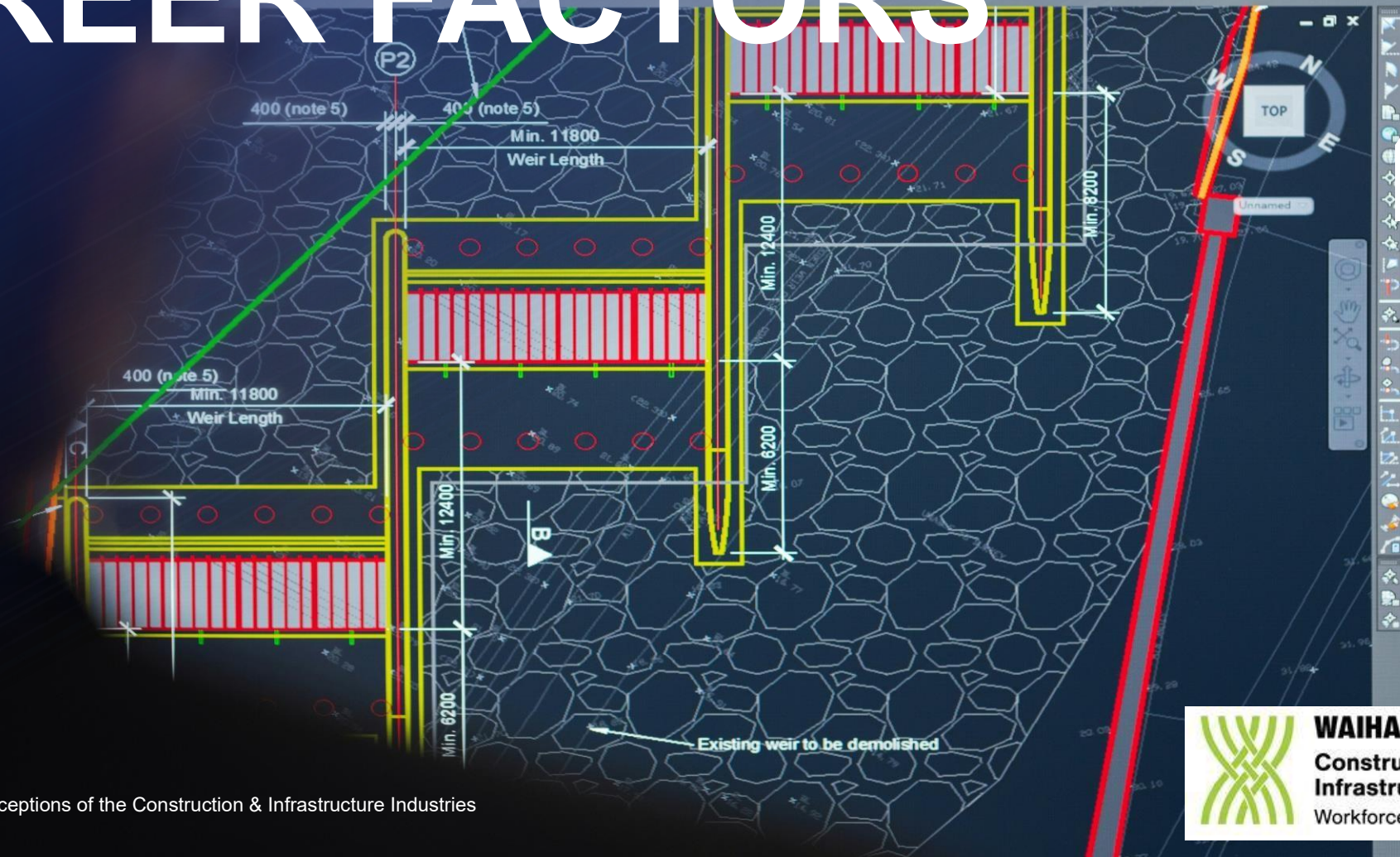
Older individuals often hesitate to commit to a single career due to misconceptions that career trajectories are inflexible, and concerns about their qualifications or abilities.

There is also a worry about the adequacy of job demand.

To attract individuals to WDC's industries, it is recommended to provide clear, accessible information about available careers, showcase a diverse range of employees, highlight the sectors' flexibility, and emphasize the high demand for workers.

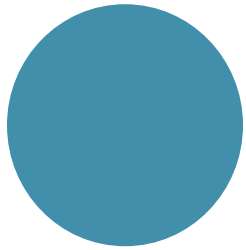
IMPORTANCE OF CAREER FACTORS

4





Good pay for the kind of job it is, being valued & working with skills / subjects that interest me rank highest across all the Student ethnic groups.



QB5:

Base:

Mean Scores
1 = Don't care at all
7 = Extremely important

Standard significance testing at 95% confidence level applied:
green / red indicates a statistically significant *increase / decrease* compared to the total

IMPORTANCE OF CAREER FACTORS

How important are each of the factors listed below when considering your ideal job?

Total Students (n=273) – Māori (n=61), Pacific (n=40), Asian (n=59), NZ European (n=180)

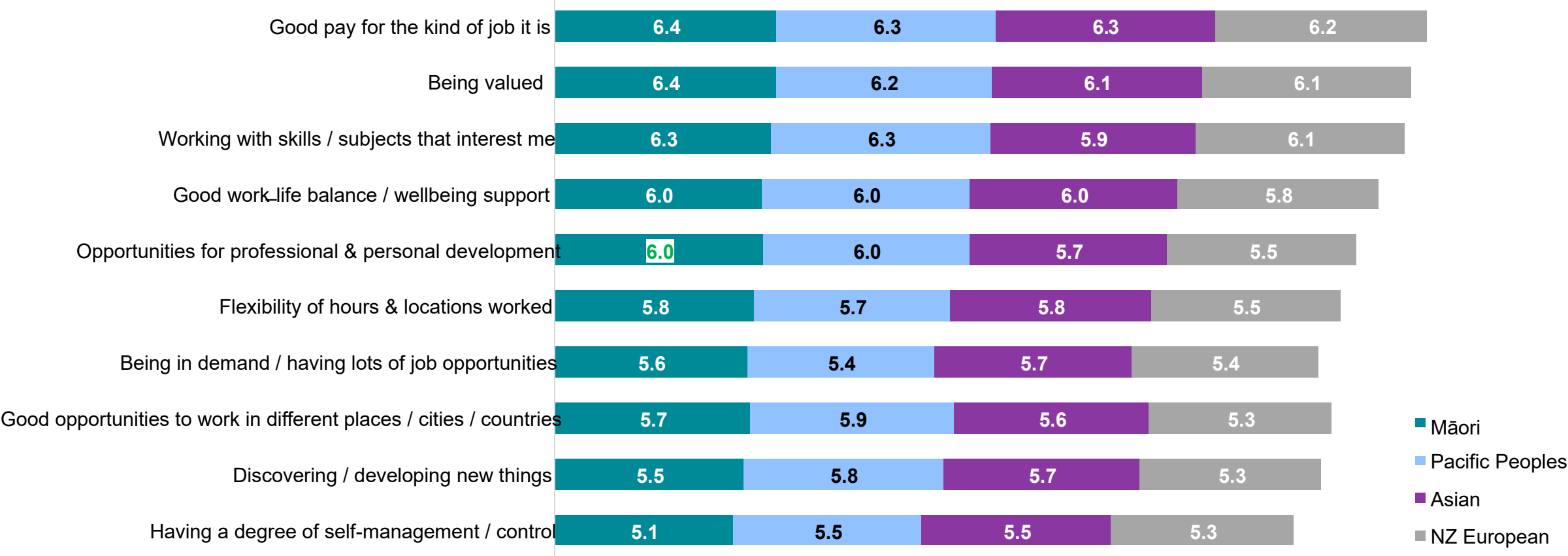
QB5: Mean Scores
1 = Don't care at all
Base: 7 = Extremely important

Standard significance testing at 95% confidence level applied:

37– © Ipsos | Career Perceptions of the Construction & Infrastructure Industries *green*
/red indicates a statistically significant increase/
decrease compared to the total



Importance of job attributes –Students



QB5:

Base:

Mean Scores
1 = Don't care at all
7 = Extremely important

Standard significance testing at 95% confidence level applied:
green/red indicates a statistically significant increase/decrease compared to the total



IMPORTANCE OF CAREER FACTORS



IMPORTANCE OF CAREER FACTORS

Amongst Students, many of the factors aligned with construction & engineering rate relatively lowly amongst the aspects covered, e.g. *operating large machinery / equipment, having a mental job, working outdoors & having a practical, physical job.*

Importance of job attributes –Students

QB5:

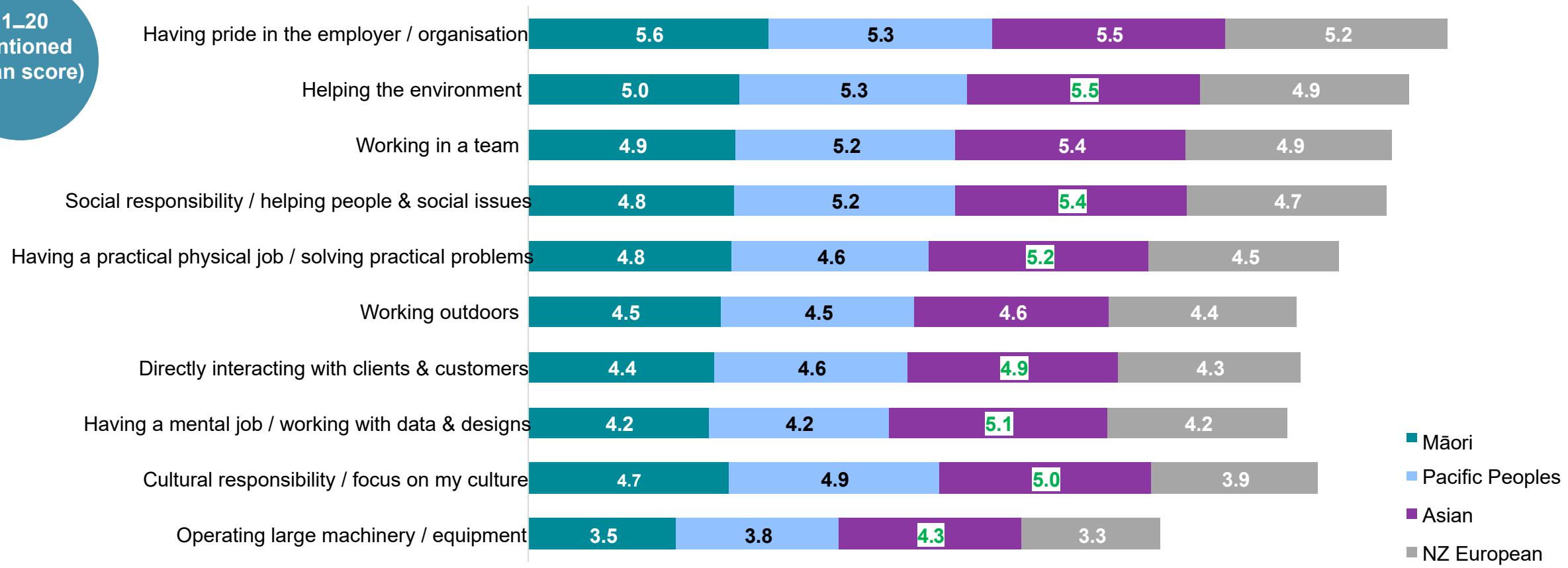
Base:

Mean Scores
1 = Don't care at all
7 = Extremely important

Standard significance testing at 95% confidence level applied:
green /red indicates a statistically significant increase/ decrease compared to the total



11_20
mentioned
(mean score)



How important are each of the factors listed below when considering your ideal job?

Mean Scores
 1 = Don't care at all
 7 = Extremely important

QB5:
Base:

IMPORTANCE OF CAREER FACTORS

Total Students (n=273) – Māori (n=61), Pacific (n=40), Asian (n=59), NZ European (n=180)

Being valued & good pay for the kind of job it is are important for all Young Adult ethnicities, similar to the Student group. Pacific Young Adults placed a little more importance on *flexible hours* than others.

Importance of job attributes –Young Adults

QB5:

Base:

Mean Scores
1 = Don't care at all
7 = Extremely important





Top-10
(mean score)

Being valued

Good pay for the kind of job it is

Good work–life balance / wellbeing support

Working with skills / subjects that interest me

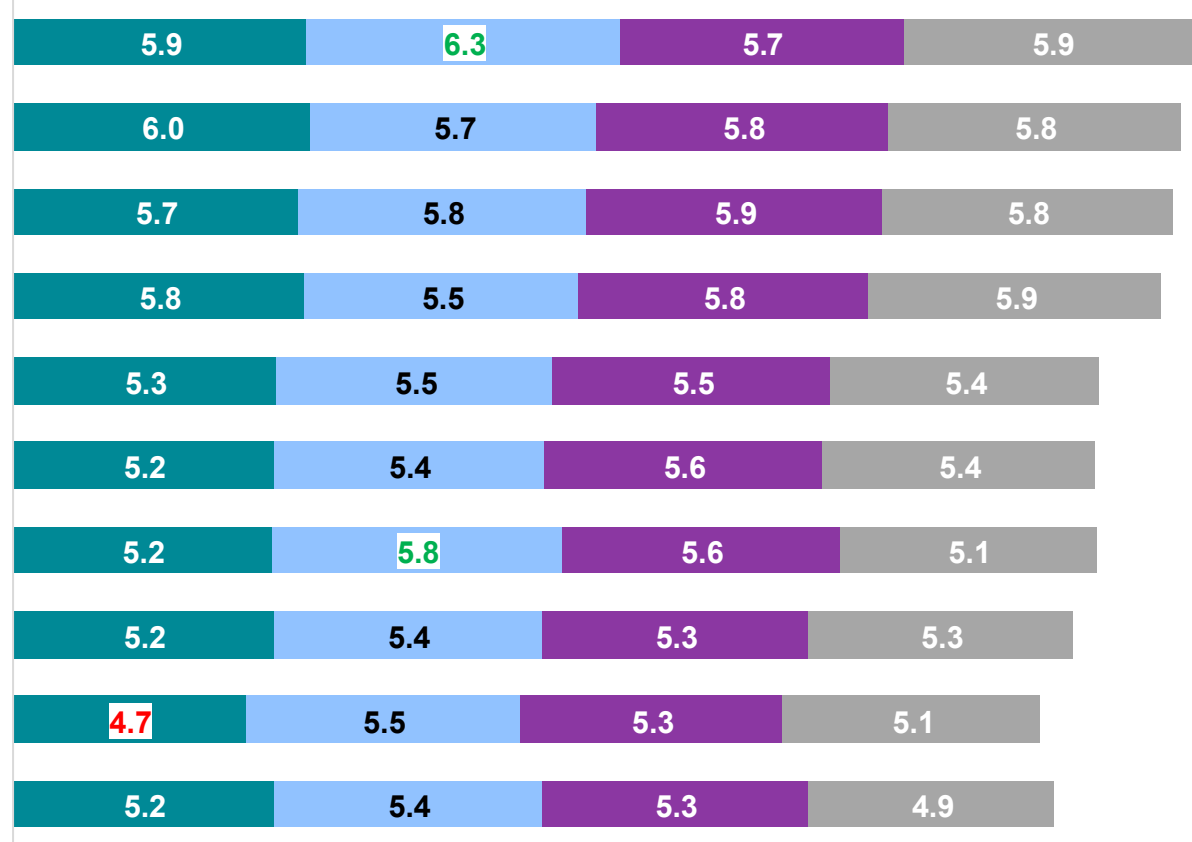
Being in demand / having lots of job opportunities

Opportunities for professional & personal development

Flexibility of hours & locations worked

Having pride in the employer / organisation

Having a degree of self-management / control



■ Māori
■ Pacific Peoples
■ Asian
■ NZ European

QB5:

Base:

Mean Scores
1 = Don't care at all
7 = Extremely important

Standard significance testing at 95% confidence level applied:
green / red indicates a statistically significant increase / decrease compared to the total

IMPORTANCE OF CAREER FACTORS

Good opportunities to work in different places / cities / countries

How important are each of the factors listed below when considering your ideal job?
Total Young Adults (n=227) – Māori (n=42), Pacific (n=32), Asian (n=52), NZ European (n=145)

QB5:
Base:

Mean Scores
1 = Don't care at all
7 = Extremely important

Standard significance testing at 95% confidence level applied:
green/red indicates a statistically significant *increase/decrease* compared to the total





IMPORTANCE OF CAREER FACTORS

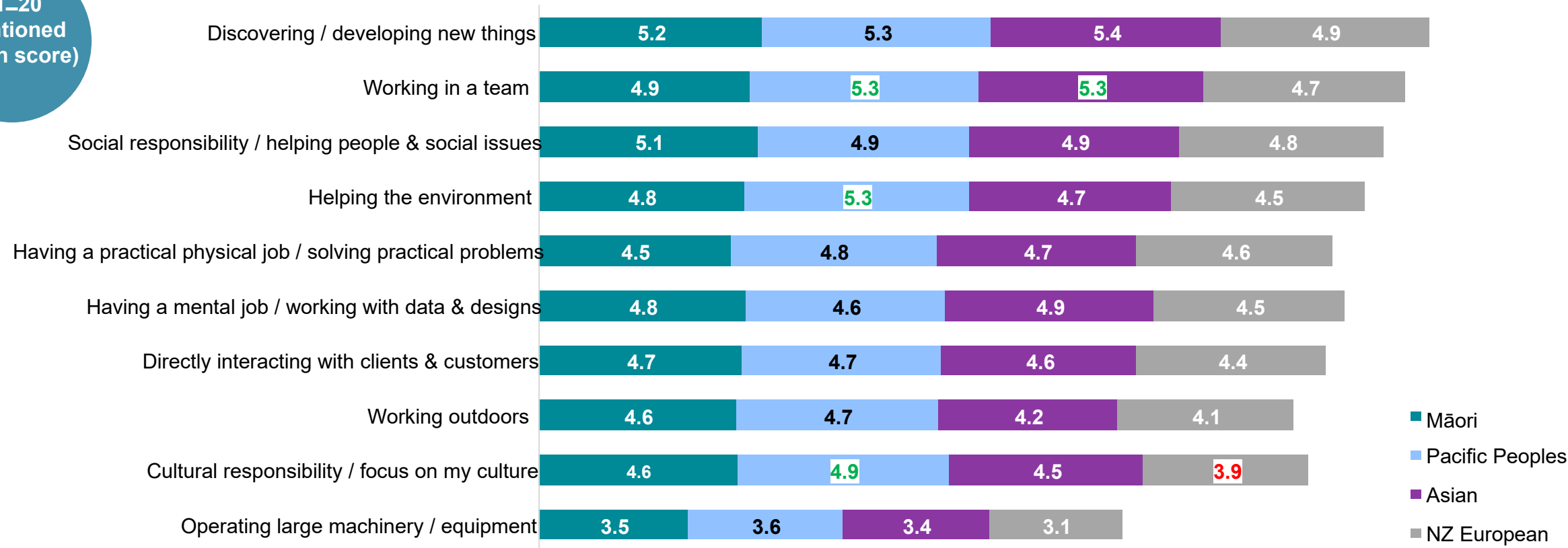
As with the Student group, the least important factors for Young Adults tended to revolve around *physical, outdoor work & cultural responsibility*. Asian Young Adults did place relatively more importance on *cultural responsibility, helping the environment & working in a team*, but they still rated many other factors as being more important overall.

QB5:
Base:

Mean Scores
1 = Don't care at all
7 = Extremely important

IMPORTANCE OF CAREER FACTORS

11–20
mentioned
(mean score)



Importance of job attributes –Young Adults

How important are each of the factors listed below when considering your ideal job?
Total Young Adults (n=227) – Māori (n=42), Pacific (n=32), Asian (n=52), NZ European (n=145)

Mean Scores
1 = Don't care at all
7 = Extremely important

Standard significance testing at 95% confidence level applied:
green/red indicates a statistically significant increase/decrease compared to the total



IMPORTANCE OF CAREER FACTORS



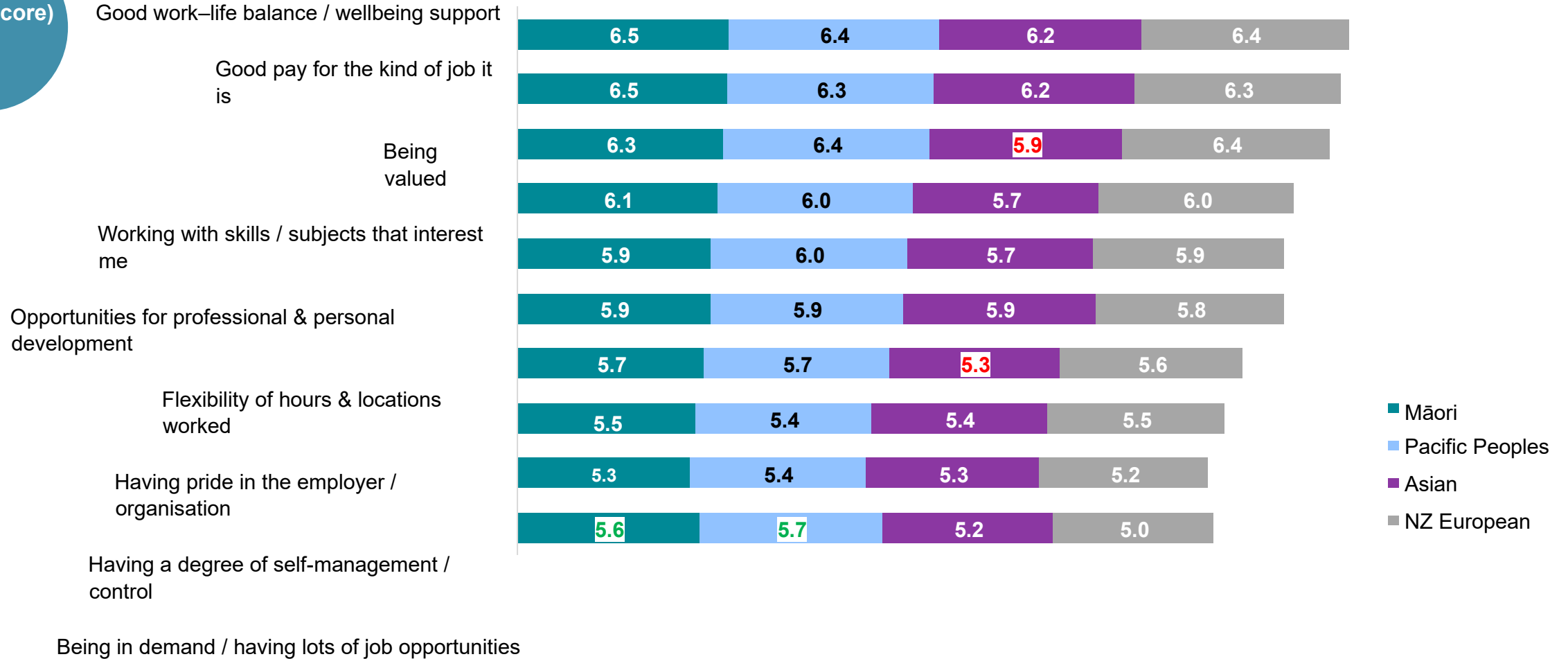
Unlike Students & Young Adults, Millennials / Early Mid-Lifers across all groups prioritise *good work–life balance / wellbeing support*. This preference may stem from their current life stage where balancing multiple responsibilities, such as raising children, becomes a critical factor in their career considerations.

Importance of job attributes –Millennials / Early Mid-Lifers

Mean Scores
1 = Don't care at all
7 = Extremely important

IMPORTANCE OF CAREER FACTORS

Top-10 mean scores
(mean score)



Mean Scores
1 = Don't care at all
7 = Extremely important

Standard significance testing at 95% confidence level applied:
green/red indicates a statistically significant increase/decrease compared to the total

IMPORTANCE OF CAREER FACTORS

Discovering / developing new things

QB5: How important are each of the factors listed below when considering your ideal job?
Base: Total Millennials / Early Mid-Lifers (n=429) –Māori (n=77), Pacific (n=52), Asian (n=98), NZ European (n=280)



Like Students & Young Adults, *operating large machinery / equipment* is the least important factor for Millennials / Early MidLifers across all ethnic groups.

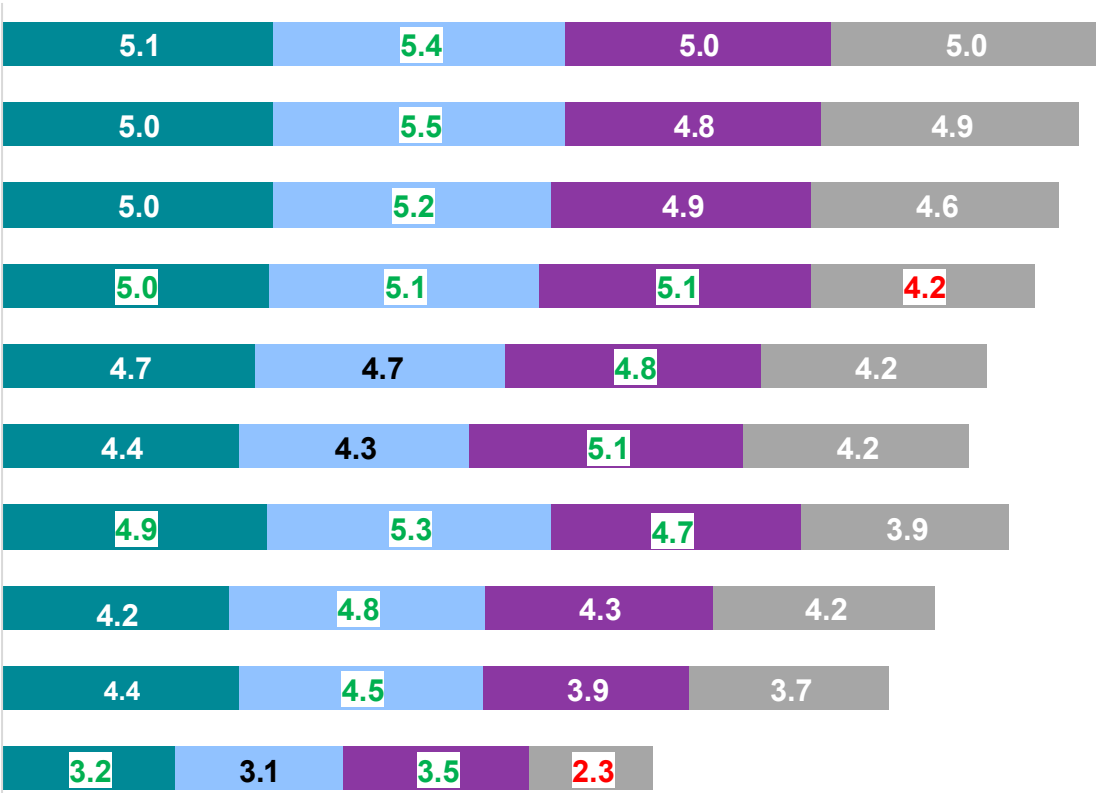
Mean Scores
1 = Don't care at all
7 = Extremely important

IMPORTANCE OF CAREER FACTORS

Importance of Job attributes – Millennials / Early Mid-Lifers

11-20
mentioned
(mean score)

- Working in a team
- Social responsibility / helping people & social issues
- Helping the environment
- Good opportunities to work in different places / cities / countries
- Having a practical physical job / solving practical problems
- Having a mental job / working with data & designs
- Cultural responsibility / focus on my culture
- Directly interacting with clients & customers
- Working outdoors



- Māori
- Pacific Peoples
- Asian
- NZ European

Mean Scores
1 = Don't care at all
7 = Extremely important



IMPORTANCE OF CAREER FACTORS

Operating large machinery / equipment

QB5: How important are each of the factors listed below when considering your ideal job?
Base: Total Millennials / Early Mid-Lifers (n=429) –Māori (n=77), Pacific (n=52), Asian (n=98), NZ European (n=280)

Mean Scores
1 = Don't care at all
7 = Extremely important

IMPORTANCE OF CAREER FACTORS: KEY POINTS

There is a clear consistency in what people want from their careers & these will be key for WDC to promote.

There is an understandable uniformity on what people want from their work, which is to achieve a balance of rewarding pay, appreciation, intriguing work, and a healthy work-life balance. These desires are consistent across different age groups and ethnicities.

However, the strengths of the construction, engineering, and civil infrastructure industries, such as heavy equipment operation, outdoor work, cultural involvement, customer service, physically engaging work, practical problem-solving, and working with data and designs, are generally undervalued.

Therefore, the challenge lies in making people understand that these sectors can deliver the four key elements they value most in their careers.



BUILDING, CONSTRUCTION & CIVIL INFRASTRUCTURE CAREER PERCEPTIONS

5

INDUSTRY PERCEPTIONS

Respondents were asked to rate how attractive they thought a career in each industry would be for them, on a 7-point scale.

This table presents the mean score out of 7 for each industry by priority group.

Higher scores are better.

Main industries of interest

- The priority industries were generally not rated highly, with Asian Students & Pacific Young Adults having the best impressions.
- European Millennials / Early Mid-Lifers had notably worse impressions of careers in these industries.
- The most attractive 'competing' industries are business / law / IT / government.

	Students (10–17 years)				Young Adults (18–25 years)				Millennials / Early Mid-Lifers (26–44 years)			
	Māori (n=61)	Pacific Peoples (n=40)	Asian (n=59)	NZ European (n=180)	Māori (n=42)	Pacific Peoples (n=32)	Asian (n=52)	NZ European (n=145)	Māori (n=77)	Pacific Peoples (n=52)	Asian (n=98)	NZ European (n=280)
Agriculture / Forestry / Horticulture / Fishing					3.43	3.57	3.38	3.31	3.61	3.06	3.53	2.99
Manufacturing					3.39	3.41	3.29	3.12	3.38	3.29	3.76	2.65
Engineering	4.14	4.36	5.05	4.05	3.58	4.00	3.78	3.30	3.19	3.49	3.89	2.74
Construction	3.54	4.00	4.04	3.51	3.63	4.50	3.45	3.23	3.30	3.19	3.57	2.80
Civil Infrastructure	3.37	3.89	4.40	3.37	3.39	3.50	3.48	2.99	2.97	2.91	3.57	2.68
Hospitality / Tourism / Recreational Services / Fitness					4.30	4.24	4.12	3.84	3.86	4.21	3.95	3.64
Driving / Transport / Storage / Wholesale					3.22	3.57	3.11	3.04	3.34	3.54	3.58	2.60
Business / Law / IT / Government					4.61	4.18	4.67	4.38	4.35	4.31	4.67	4.15
Health, Community, Sciences					4.02	4.42	4.33	4.09	4.21	4.49	4.29	4.18
Education / Teaching					4.08	3.86	3.70	3.62	3.92	4.12	3.75	4.00
Defence Force					3.50	3.72	3.50	3.11	3.06	3.56	3.21	2.63

QB4: Considering your personal situation, interests and skills, how attractive do you think it would be for you to have a career in each of the following industries?

Note: Students were shown only the three main industries of interest: *engineering, construction, and civil infrastructure*.

BUILDING, CONSTRUCTION & CIVIL INFRASTRUCTURE CAREER KNOWLEDGE

Across all life stages, the three most common professions associated with the construction & civil infrastructure industries are *builders, engineers & electricians*. On average, between 3 & 5 jobs were cited per person, mainly all trades jobs.

	Young Adults 3.6	Millennials 4.2	Early Mid-Lifers 4.7	Older Parents 3.6
BUILDER	48%	54%	57%	49%
ENGINEERING	37%	49%	52%	50%
ELECTRICIAN	33%	37%	40%	41%
PLUMBER	28%	37%	38%	32%
MANAGEMENT	19%	27%	28%	9%
ARCHITECTURE	19%	17%	31%	13%
ROAD CONSTRUCTION	15%	19%	20%	28%
LABOURER	14%	12%	10%	9%

	Young Adults 3.6	Millennials 4.2	Early Mid-Lifers 4.7	Older Parents 3.6
Other BUILDING/construction related jobs	7%	8%	4%	9%
COUNCIL	5%	7%	9%	9%
METAL WORKER	6%	5%	8%	4%
ROOFER	4%	4%	12%	5%
DESIGN	3%	4%	8%	14%
QUANTITY SURVEYOR	4%	4%	5%	9%
OHS/1st AID	4%	4%	5%	0%
TRADESPERSON nfi	7%	2%	2%	0%
SCAFFOLDER	4%	5%	0%	0%

BUILDING, CONSTRUCTION & CIVIL INFRASTRUCTURE CAREER KNOWLEDGE

DRIVER	9%	11%	15%	14%
SURVEYING	7%	10%	19%	14%
Other NON BUILDING related jobs	15%	8%	10%	4%
CARPENTER	9%	10%	14%	9%
MACHINE OPERATOR	9%	11%	10%	5%
BRICKLAYER	7%	10%	13%	9%
PAINTER	7%	10%	11%	4%
ADMINISTRATOR	8%	9%	8%	0%
FOREMAN	7%	8%	9%	4%
DK / NR / none	10%	8%	5%	5%

TECHNICIAN/IT	3%	4%	3%	0%
LANDSCAPER	0%	4%	5%	0%
FLOORING/TILER	2%	3%	5%	0%
INSPECTOR	0%	3%	5%	4%
JOINER	0%	3%	4%	4%
SUPPLIER	1%	2%	3%	0%
WINDOWS	2%	2%	1%	0%
CONTRACTOR nfi	2%	1%	1%	0%
SALES	1%	1%	1%	0%
DEMOLITION	1%	1%	1%	4%

Note: Respondents were asked to name all the jobs, trades, and professions they could think of that can be found in the construction and civil infrastructure industries. This open-ended question is designed to measure the breadth and depth of knowledge of the industries, and to identify what jobs may be skewing people's perceptions of careers in said industries.

BUILDING, CONSTRUCTION & CIVIL INFRASTRUCTURE CAREER KNOWLEDGE



QC1: Please write down all the jobs, trades and professions you can think of that can be found in the construction and civil infrastructure

industries? **Base:** Young Adults (n=221), Millennials (n=416), Early Mid-Lifers (n=149), Older Parents (n=22*). ***Caution:** Low base size (n<30).

Career Perceptions of the Construction and Infrastructure Industries

Young adults, regardless of their ethnicity, mostly think of *builders, engineers, and electricians* when they hear about construction and infrastructure jobs. On average, 3 jobs were cited per person, mainly all trades jobs.

Young Adults	Maori 3.1	Pacific Peoples 3.5	Asian 3.5	NZ European 3.9
BUILDER	43%	39%	43%	53%
ENGINEERING	25%	29%	45%	40%
ELECTRICIAN	25%	39%	27%	37%
PLUMBER	25%	39%	14%	32%
MANAGEMENT	12%	10%	30%	20%
ARCHITECTURE	5%	13%	31%	18%
Other NON BUILDING related jobs	17%	29%	12%	14%
ROAD CONSTRUCTION	20%	16%	8%	20%
LABOURER	7%	9%	22%	13%
CARPENTER	2%	23%	8%	8%
MACHINE OPERATOR	5%	6%	14%	9%
DRIVER	5%	10%	10%	9%
DK / NR / none	15%	0%	0%	12%
ADMINISTRATOR	10%	3%	6%	11%
SURVEYING	10%	3%	12%	6%
PAINTER	0%	10%	4%	8%
Other BUILDING/construction related jobs	10%	3%	8%	8%
FOREMAN	5%	7%	8%	7%

Young Adults	Maori 3.1	Pacific Peoples 3.5	Asian 3.5	NZ European 3.9
OWNER	0%	3%	0%	0%
BRICKLAYER	5%	3%	2%	9%
METAL WORKER	7%	10%	4%	6%
COUNCIL	5%	0%	8%	6%
QUANTITY SURVEYOR	2%	0%	6%	4%
OHS/1st AID	8%	3%	0%	5%
ROOFER	8%	10%	0%	4%
SCAFFOLDER	5%	3%	2%	3%
DESIGN	3%	0%	0%	4%
TECHNICIAN/IT	2%	3%	4%	3%
CONTRACTOR nfi	0%	6%	4%	1%
FLOORING/TILER	2%	3%	0%	2%
WINDOWS	2%	0%	2%	2%
SUPPLIER	2%	3%	0%	2%
DEMOLITION	0%	3%	0%	1%
SALES	2%	0%	0%	1%
INSPECTOR	0%	0%	2%	0%
LANDSCAPER	0%	3%	0%	0%
OWNER	0%	3%	0%	0%

Base:

BUILDING, CONSTRUCTION & CIVIL INFRASTRUCTURE CAREER KNOWLEDGE



Note: Respondents were asked to name all the jobs, trades, and professions they could think of that can be found in the construction and civil infrastructure industries. This open-ended question is designed to measure the breadth and depth of knowledge of the industries, and to identify what jobs may be skewing people's perceptions of careers in said industries.

QC1: Please write down all the jobs, trades and professions you can think of that can be found in the construction and civil infrastructure industries?

Base: Total Young Adults (n=221) – Māori (n=40), Pacific (n=31), Asian (n=50), NZ European (n=141)

Among Millennials and Early Mid-Lifers, the types of jobs associated with the construction and civil infrastructure industries differed across ethnicities.

Millennials / early mid-lifers	Maori 4.2	Pacific Peoples 4.5	Asian 3.2	NZ European 4.9
BUILDER	50%	46%	29%	64%
ENGINEERING	36%	36%	48%	52%
ELECTRICIAN	41%	31%	21%	44%
PLUMBER	42%	33%	22%	43%
MANAGEMENT	19%	21%	24%	29%
ARCHITECTURE	18%	19%	18%	23%
ROAD CONSTRUCTION	22%	21%	6%	24%
LABOURER	9%	14%	15%	11%
DRIVER	10%	15%	7%	14%
SURVEYING	11%	15%	12%	12%
Other NON BUILDING related jobs	8%	12%	6%	9%
CARPENTER	17%	15%	10%	9%
MACHINE OPERATOR	13%	11%	7%	12%
BRICKLAYER	12%	12%	3%	13%
PAINTER	7%	6%	9%	11%
ADMINISTRATOR	9%	4%	7%	11%
FOREMAN	8%	13%	10%	9%
DK / NR / none	12%	10%	10%	6%

Millennials / early mid-lifers	Maori 4.2	Pacific Peoples 4.5	Asian 3.2	NZ European 4.9
Other BUILDING/construction related jobs	4%	8%	3%	8%
COUNCIL	4%	2%	4%	9%
METAL WORKER	5%	15%	1%	6%
ROOFER	10%	8%	1%	10%
DESIGN	1%	2%	5%	6%
QUANTITY SURVEYOR	0%	2%	5%	5%
OHS/1st AID	6%	8%	0%	6%
TRADESPERSON nfi	3%	2%	3%	3%
SCAFFOLDER	8%	8%	2%	4%
TECHNICIAN/IT	5%	8%	4%	4%
LANDSCAPER	5%	6%	3%	6%
FLOORING/TILER	3%	12%	3%	3%
INSPECTOR	4%	4%	0%	5%
JOINER	5%	4%	3%	5%
SUPPLIER	3%	4%	3%	2%
WINDOWS	4%	2%	1%	2%
CONTRACTOR nfi	1%	0%	1%	1%
SALES	0%	0%	1%	1%
DEMOLITION	1%	0%	0%	1%

BUILDING, CONSTRUCTION & CIVIL INFRASTRUCTURE CAREER KNOWLEDGE

Note: Respondents were asked to name all the jobs, trades, and professions they could think of that can be found in the construction and civil infrastructure industries. This open-ended question is designed to measure the breadth and depth of knowledge of the industries, and to identify what jobs may be skewing people's perceptions of careers in said industries.

QC1: Please write down all the jobs, trades and professions you can think of that can be found in the construction and civil infrastructure industries?

Total Millennials / Early Mid-Lifers (n=416) – Māori (n=76), Pacific (n=49), Asian (n=94), NZ European (n=275)

Base:

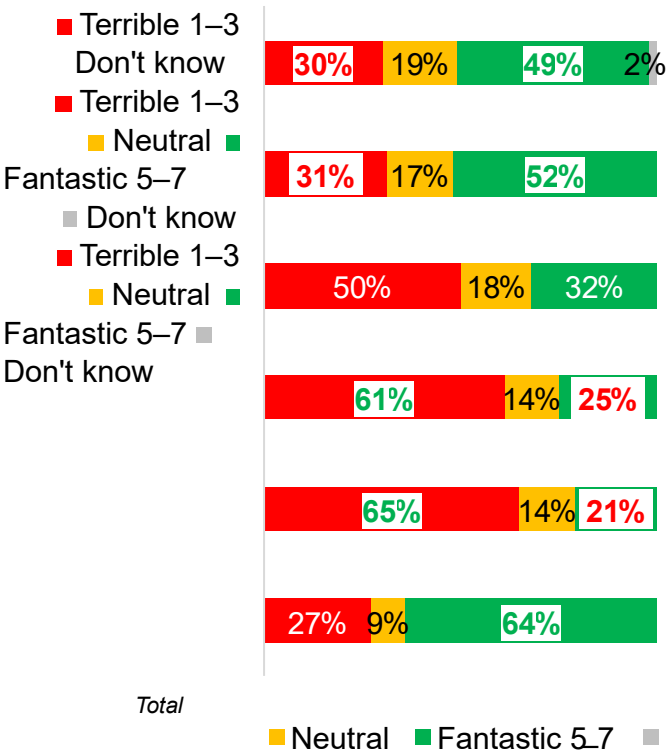
INDUSTRY PERCEPTIONS

Millennials & Early Mid-Lifers consistently harbour negative perceptions towards the idea of these three industries as career options. Note that this does not mean they feel poorly about the industries per se, they just feel that they would dislike careers in them. In contrast, Students & Older Parents are quite positively disposed towards careers in engineering.

Industry attractiveness – Life stages

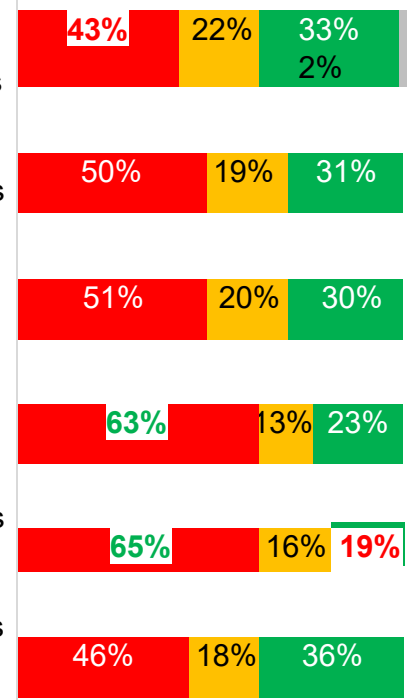
	Engineering	Mean	Construction	Mean	Civil infrastructure	Mean
Young students						
Older students						
Young adults						
Millennials						
Early mid-lifers						
Older parents						
QB4:						
Base:						





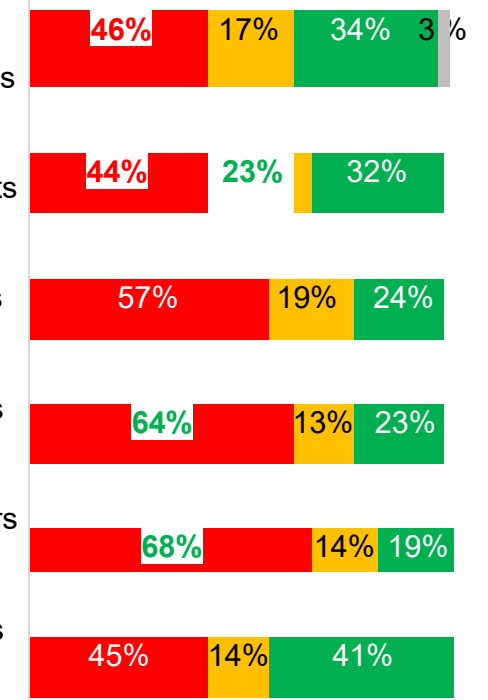
4.24
4.28
3.56
3.17
2.89
4.88

Young students
Older students
Young adults
Millennials
Early mid-lifers
Older parents



3.65
3.58
3.48
3.11
2.86
3.68

Young students
Older students
Young adults
Millennials
Early mid-lifers
Older parents



3.63
3.57
3.22
3.00
2.74
3.70

Considering your personal situation, interests and skills, how attractive do you think it would be for you to have a career in each of the following industries?
sample (n=1,000) – Young Students (n=141), Older Students (n=145), Young Adults (n=232), Millennials (n=305), Early Mid-Lifers (n=155), Older Parents (n=22*).***Caution:** Low base size (n<30).

INDUSTRY PERCEPTIONS

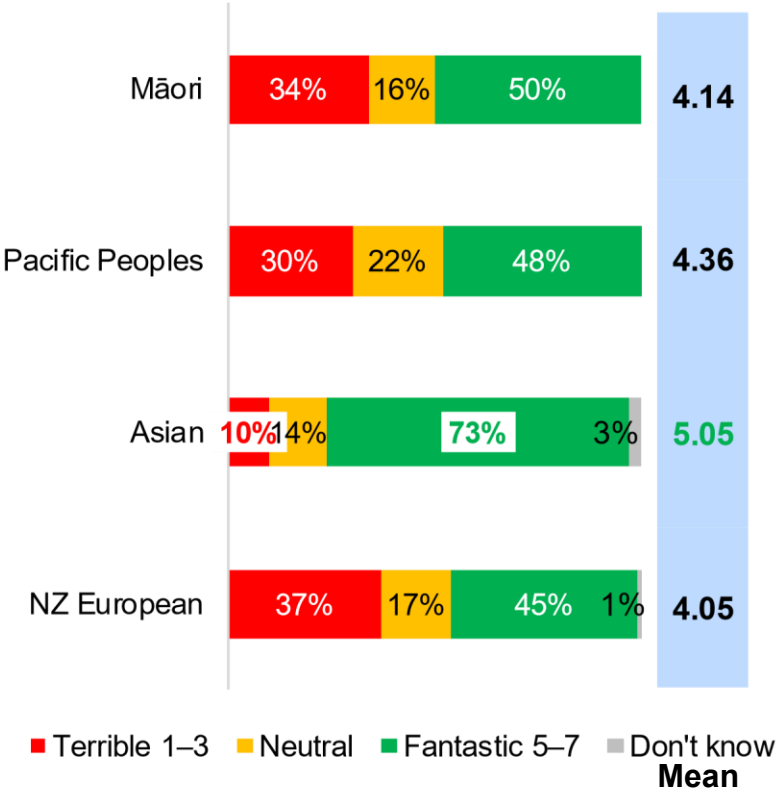
Asian Students have a notably more positive perception of the engineering & civil infrastructure industries – potentially due to the pronounced presence of individuals from Asian backgrounds in STEM-related fields.

QB4:
Base:

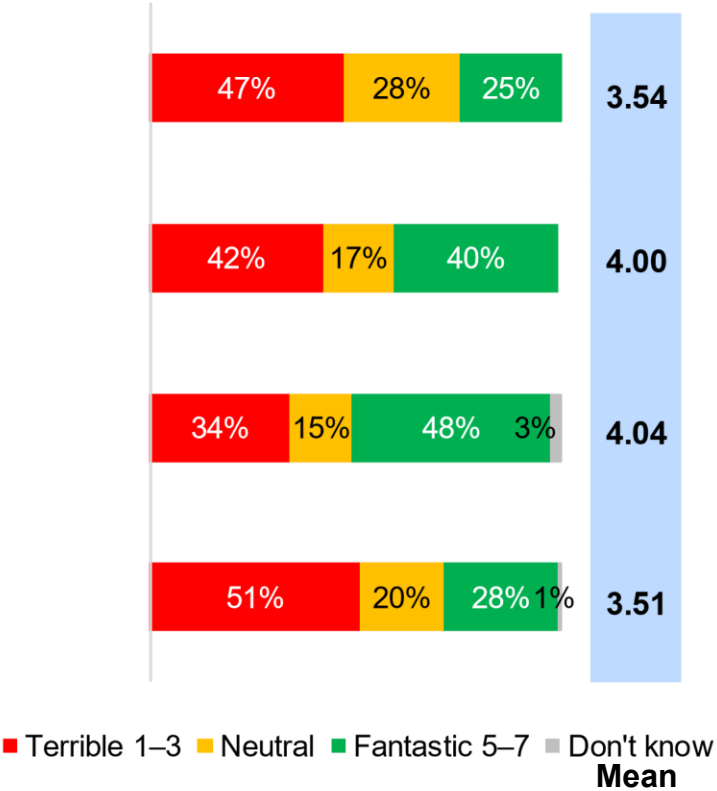


Industry attractiveness – Students

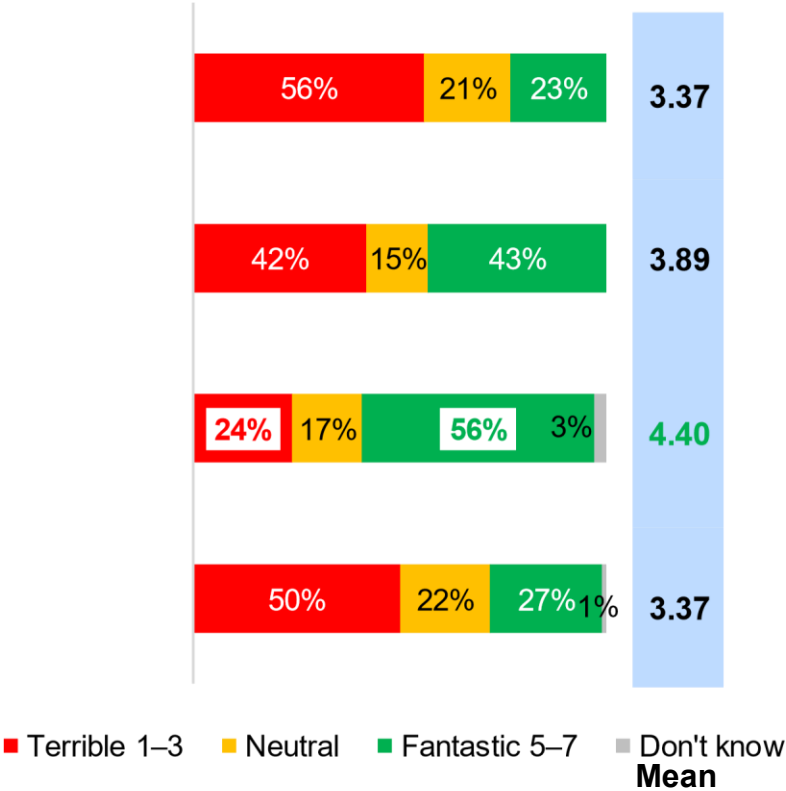
Engineering



Construction



Civil infrastructure



Māori

Māori

QB4:

Base:

Pacific Peoples

Pacific Peoples

Asian

Asian

NZ European

NZ European

Considering your personal situation, interests and skills, how attractive do you think it would be for you to have a career in each of the following industries?

Total Students (n=273) – Māori (n=61), Pacific (n=40), Asian (n=59), NZ European (n=180)

STEM = science, technology, engineering & math

INDUSTRY PERCEPTIONS



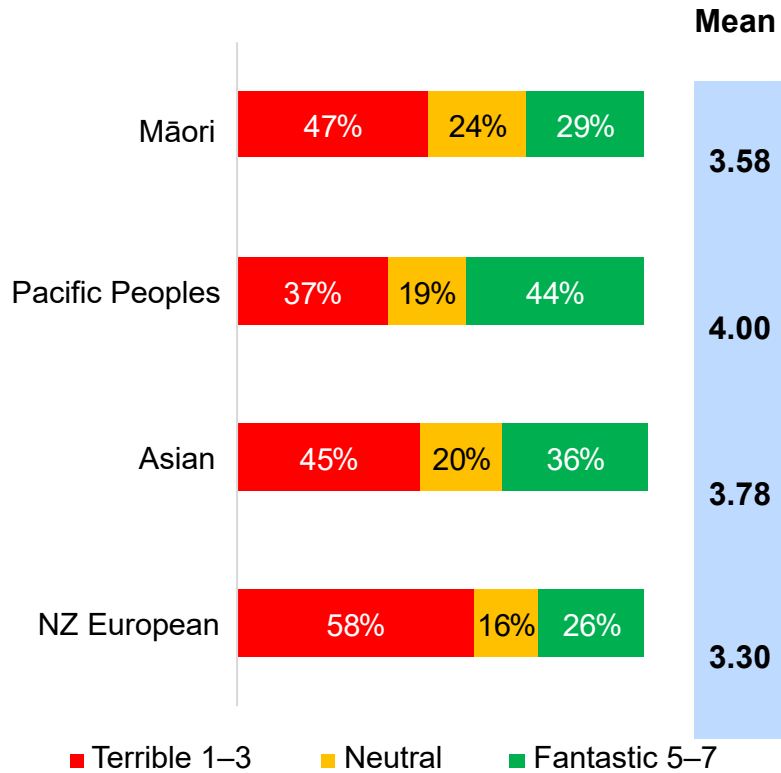
Pacific Young Adults are more likely to view the construction industry positively – a promising opportunity for the sector to engage with this demographic.

QB4:

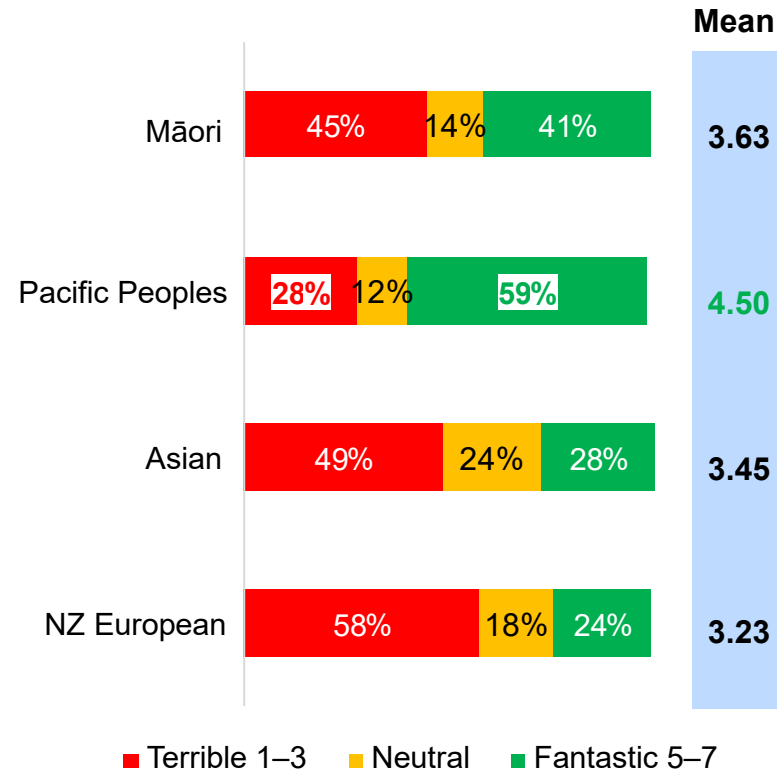
Base:

Industry attractiveness – Young Adults

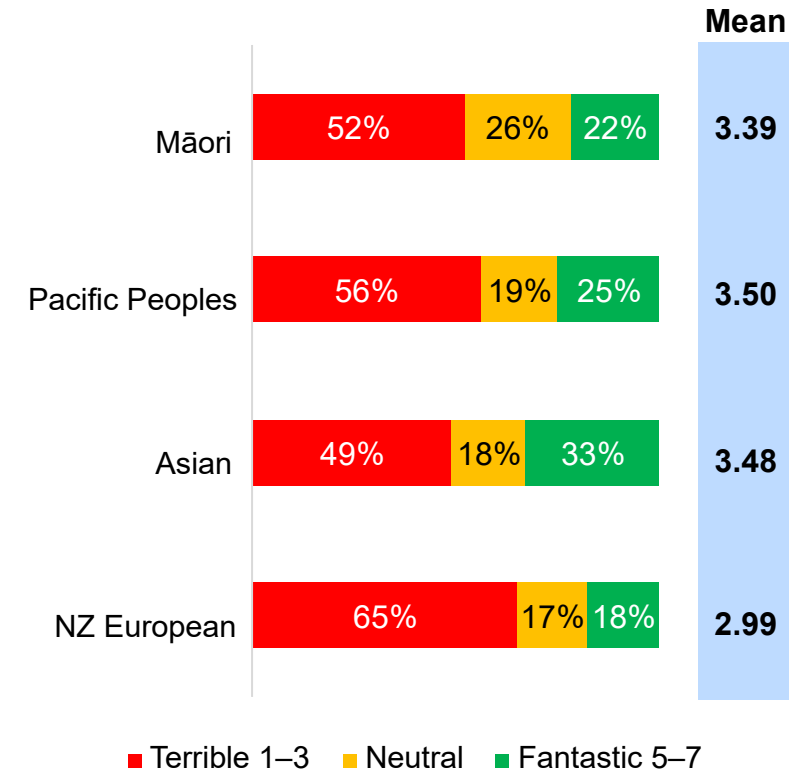
Engineering



Construction



Civil infrastructure



Considering your personal situation, interests and skills, how attractive do you think it would be for you to have a career in each of the following industries?

Total Young Adults (n=227) – Māori (n=42), Pacific (n=32), Asian (n=52), NZ European (n=145)

QB4:

Base:

INDUSTRY PERCEPTIONS



NZ European Millennials / Early Mid-Lifers have less favourable views of careers in these industries. The exception is those of Asian descent, who are more positively inclined towards careers in engineering & civil infrastructure. **Industry attractiveness**

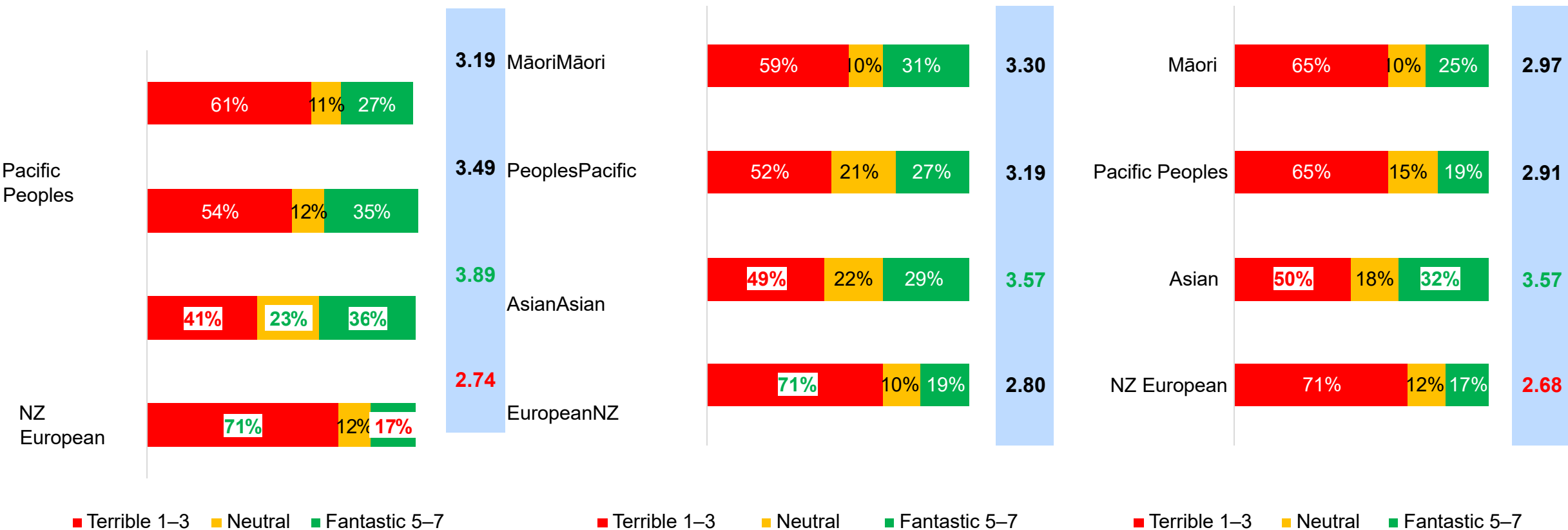
– Millennials / Early Mid-Lifers

Engineering		Construction		Civil infrastructure
Mean		Mean		Mean

QB4:

Base:





Considering your personal situation, interests and skills, how attractive do you think it would be for you to have a career in each of the following industries?
 Total Millennials / Early Mid-Lifers (n=429) –Māori (n=77), Pacific (n=52), Asian (n=98), NZ European (n=280)

QB4:
 Base:

BUILDING, CONSTRUCTION & CIVIL INFRASTRUCTURE CAREER PERCEPTIONS: KEY POINTS

The attractiveness of these sectors is compromised by overly narrow understanding of the career opportunities they offer.

Career options in the engineering, construction, and civil infrastructure sectors generally received low ratings, with the exception of Asian Students and Pacific Young Adults who had more favorable impressions.

More desirable careers were found in business, law, IT, and government sectors, followed by hospitality / tourism / recreational services / fitness and health.

The reluctance towards engineering and construction likely stems from a prevalent perception of these fields as predominantly 'tradie' roles, as these dominated the suggested jobs within these sectors.

However, Asian Young Adults and Asian Millennials/Early Mid-Lifers associated these sectors with architect and management roles respectively. This suggests that the rejection or acceptance of these sectors often reflects a limited understanding of the range of jobs they offer.

Positive perception of these sectors by groups like Asian Students and Pacific Young Adults may also be influenced by stereotypes or the experiences of their own peer groups..

CONSTRUCTION INDUSTRY BUILDING, CONSTRUCTION & CIVIL INFRASTRUCTURE CAREER PERCEPTIONS

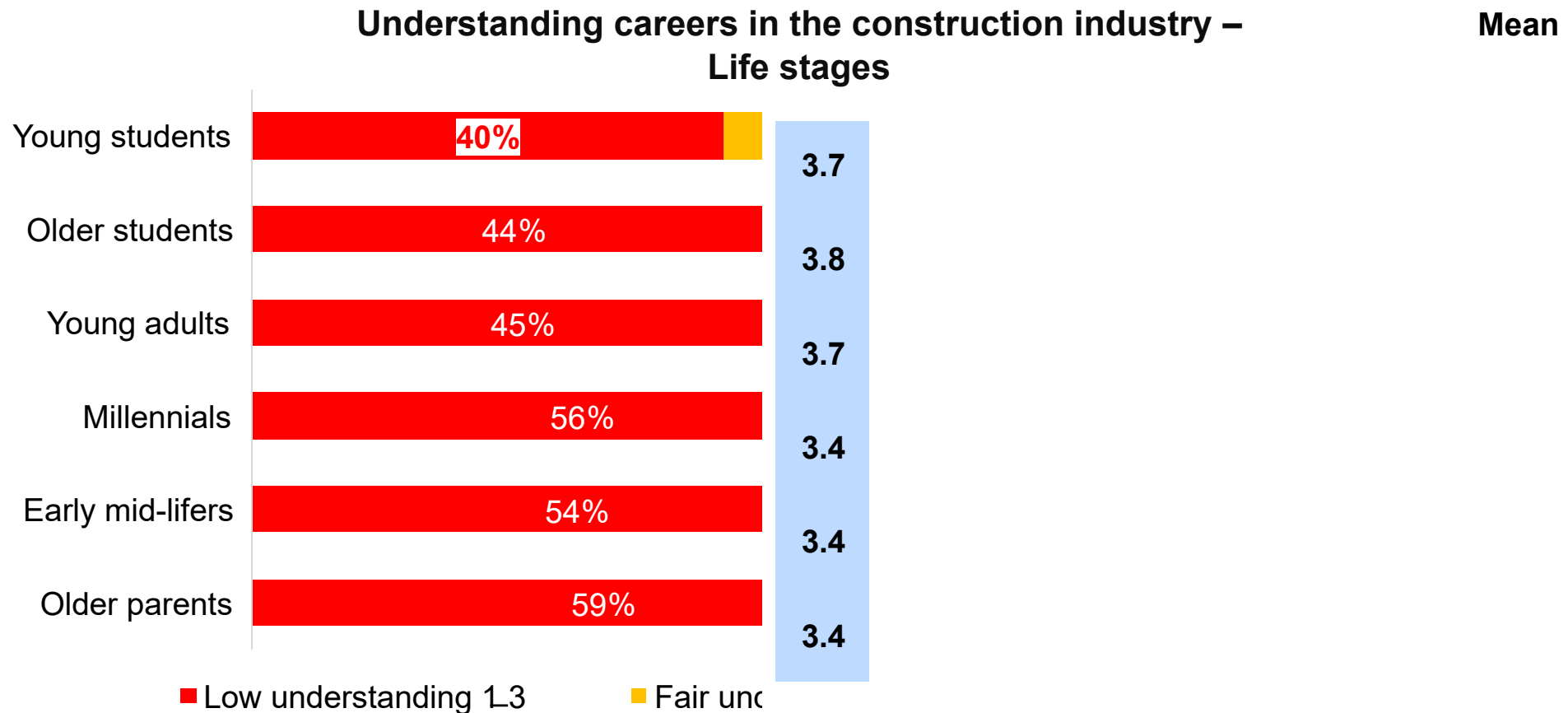
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WAIHANGA ARA RAU
Construction and
Infrastructure
Workforce Development Council



Across all the life stages, it is evident that there is only limited understanding regarding careers in the construction industry, indicating a need for more industry information & exposure for all groups. Interestingly, ‘understanding’ decreases with life experience / age.



QC2a: How well do you think that you personally understand what a career in the construction industry would be like?

Total sample (n=1,000) – Young Students (n=141), Older Students (n=145), Young Adults (n=232), Millennials (n=305), Early Mid-Lifers (n=155), Older Parents (n=22*). ***Caution:** Low base size (n<30).

CONSTRUCTION INDUSTRY

*decrease*compared to the total

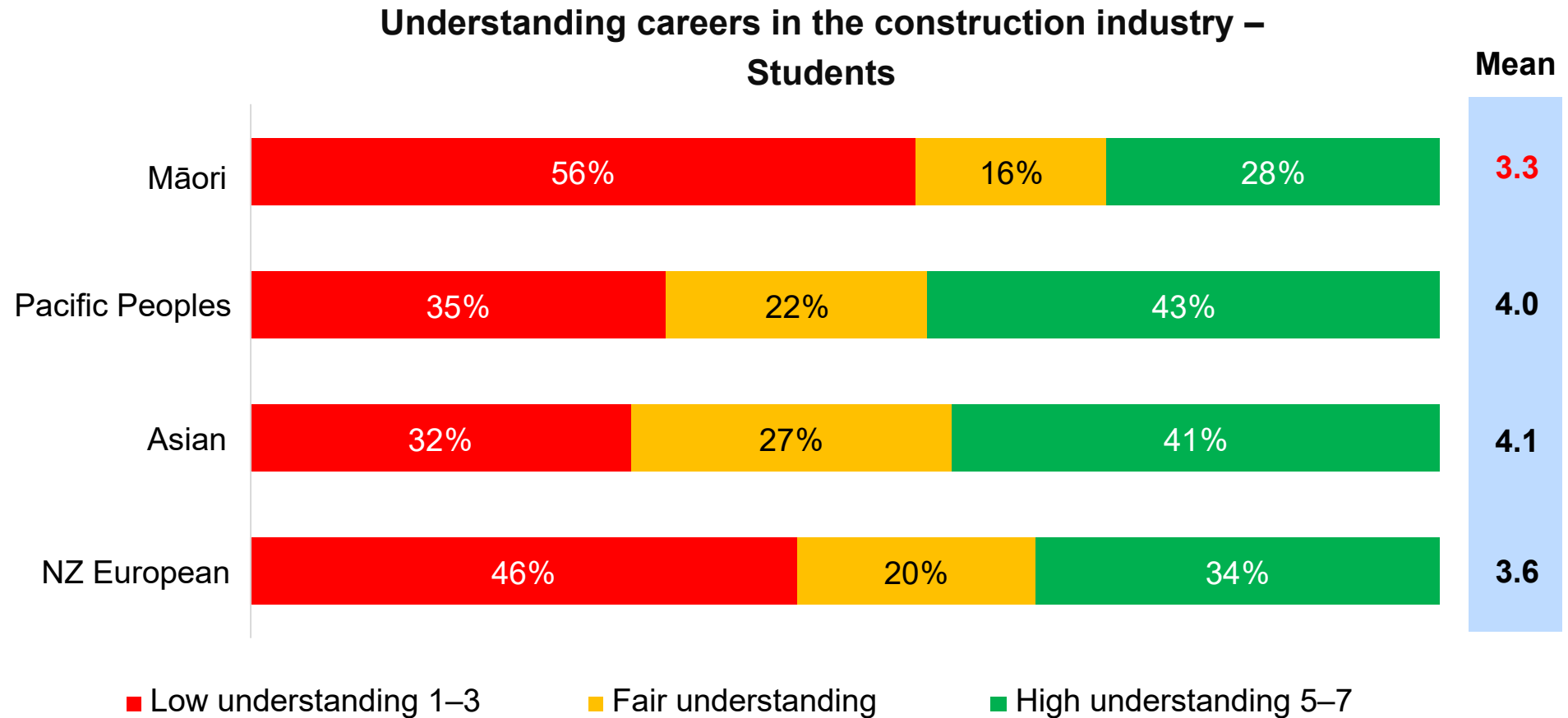
Base:



CONSTRUCTION INDUSTRY



Students from the Asian & Pacific groups seem to have a higher (self-rated) understanding of the construction industry compared to NZ European & Māori Students.



QC2a: How well do you think that you personally understand what a career in the construction industry would be like?

Base: Total Students (n=273) – Māori (n=61), Pacific (n=40), Asian (n=59), NZ European (n=180)

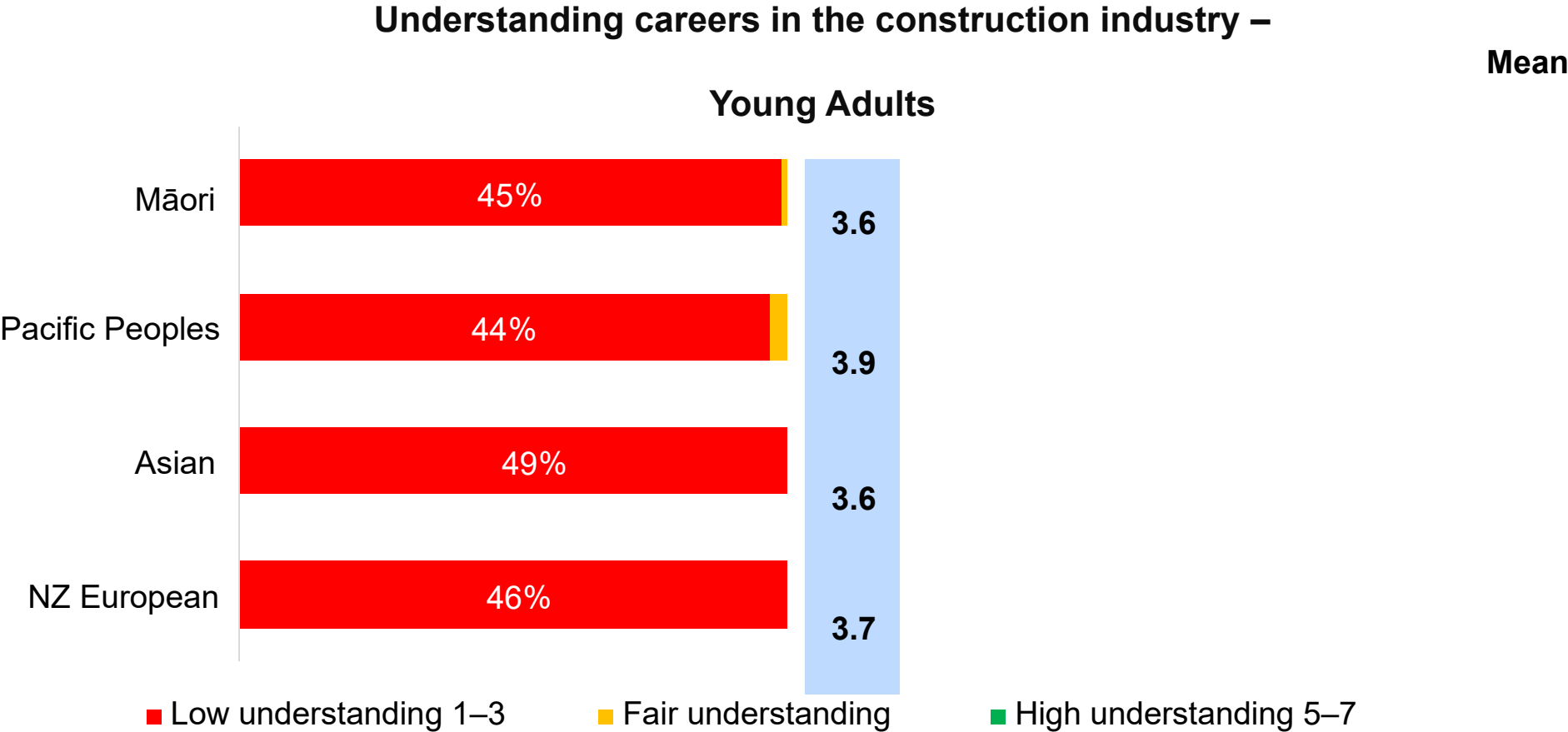
Standard significance testing at 95% confidence level applied:

CONSTRUCTION INDUSTRY



green /red indicates a statistically significant increase/
decrease compared to the total

Young Adults’ understanding levels are relatively balanced across all ethnicities, with percentages hovering around mid 40s for low understanding & low 30s for high understanding.



Base:

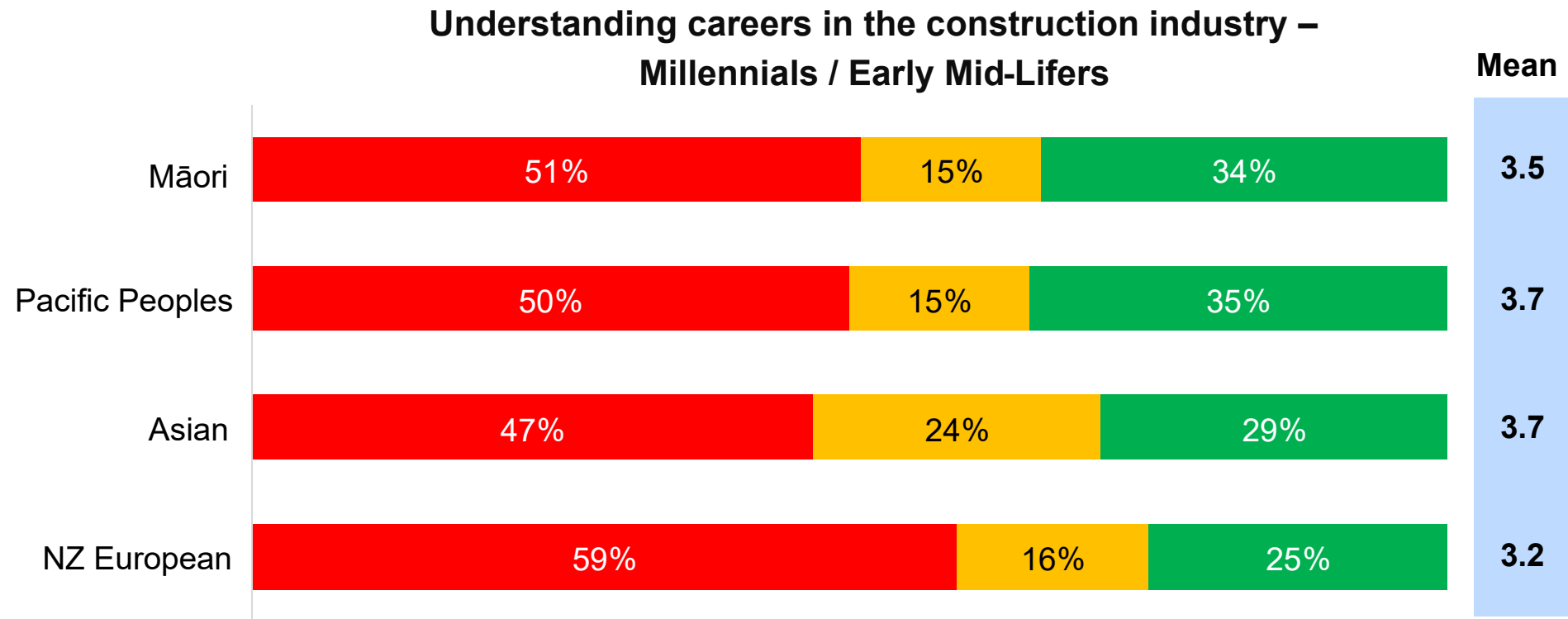
CONSTRUCTION INDUSTRY

QC2a: How well do you think that you personally understand what a career in the construction industry would be like?

Total Young Adults (n=227) – Māori (n=42), Pacific (n=32), Asian (n=52), NZ European (n=145)



Millennials / Early Mid-Lifers’ understanding of the construction industry is similar to that of Young Adults. However, NZ Europeans have a more limited understanding & they also view the industry in a less positive light.



CONSTRUCTION INDUSTRY

■ Low understanding 1–3 ■ Fair understanding ■ High understanding 5–7

QC2a: How well do you think that you personally understand what a career in the construction industry would be like?

Base: Total Millennials / Early Mid-Lifers (n=429) –Māori (n=77), Pacific (n=52), Asian (n=98), NZ European (n=280)

Base:

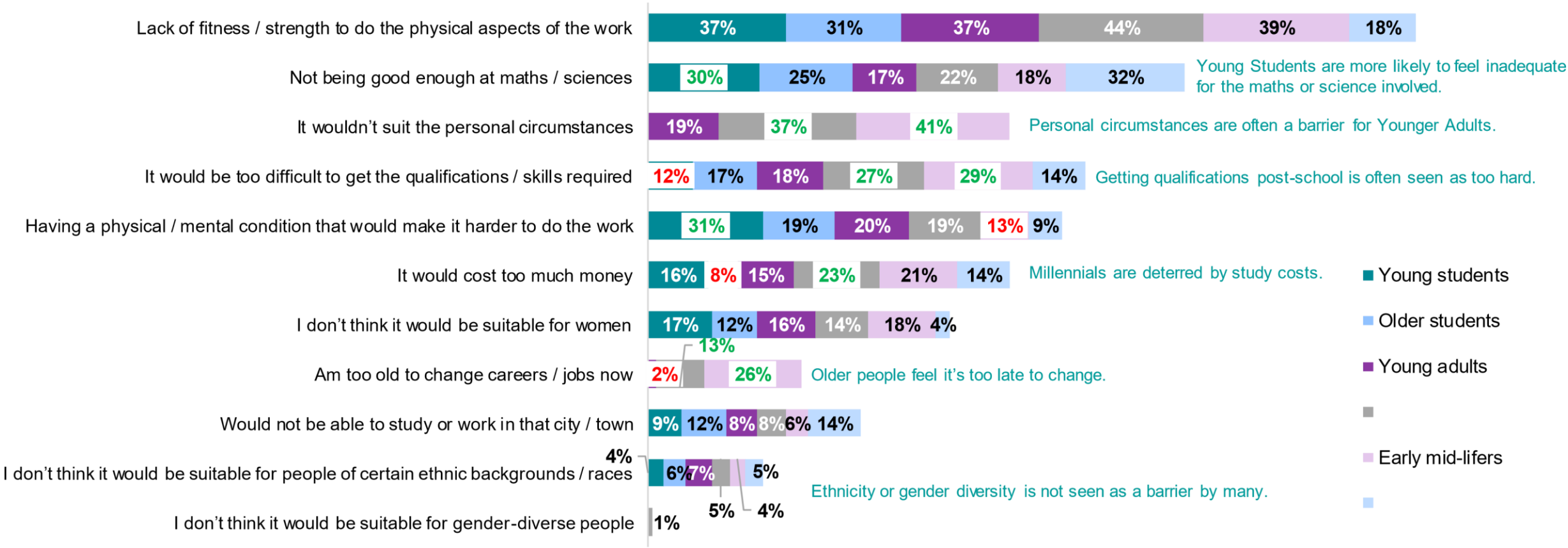
CONSTRUCTION INDUSTRY

The most common concern about careers in this industry across all life stages is the *lack of fitness / strength to do the physical aspects of the work*. This reflects the dominance of trades jobs in people's perceptions of construction careers.

QC2b:

Base:

Construction industry careerbarriers – Life stages



QC2b:

Base:

ction industry if you wanted to?

Older parents



What, if any, of the following things do you think would make it difficult for you to personally have a career in the construction industry if you wanted to?

Total sample (n=1,000) – Young Students (n=141), Older Students (n=145), Young Adults (n=232), Millennials (n=305), Early Mid-Lifers (n=155), Older Parents (n=22*). ***Caution:** Low base size (n<30).

Standard significance testing at 95% confidence level applied:

green / red indicates a statistically significant increase / decrease compared to the total



CONSTRUCTION INDUSTRY

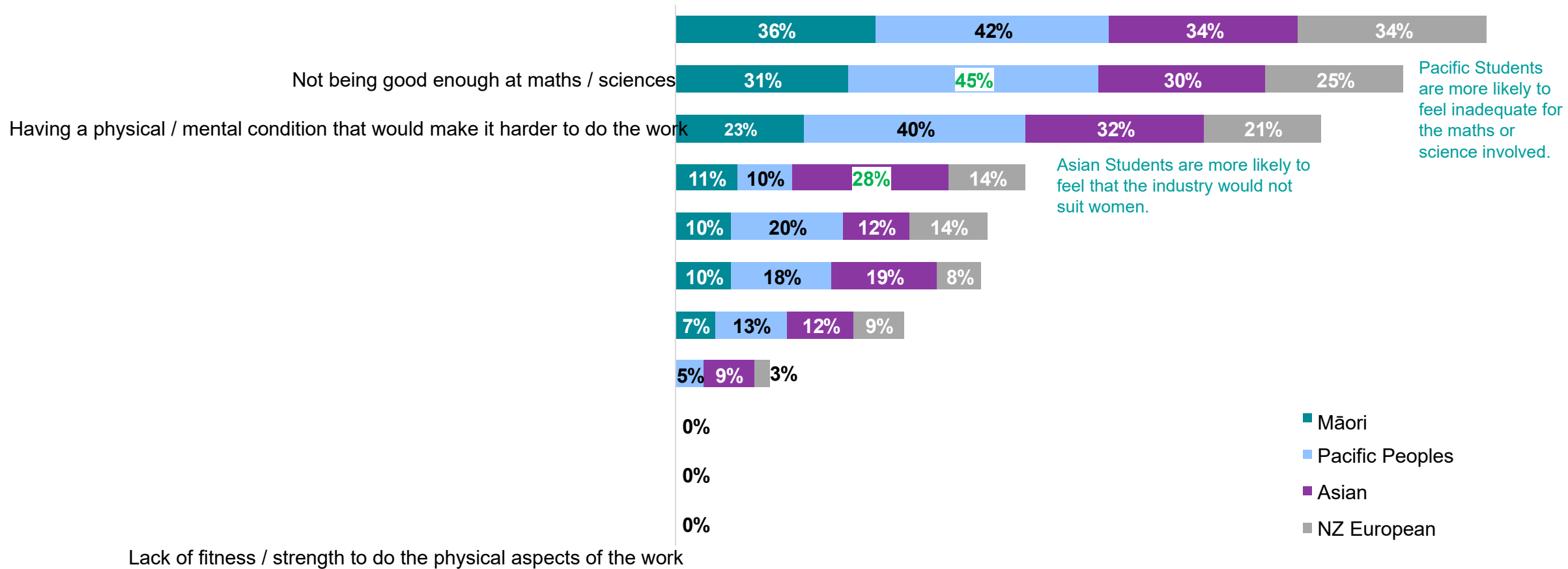
For Students, the primary concern is the *lack of fitness / strength to do the physical aspects of the work*, followed by *not being good enough at maths / sciences*. This concern is noticeably pronounced among Pacific Students, suggesting a prevalent perception that proficiency in STEM subjects is a prerequisite for a career in the construction industry.

QC2b:

Base:

ction industry if you wanted to?

Construction industry careerbarriers– Students



QC2b:

Base:

ction industry if you wanted to?

I don't think it would be suitable for women

It would be too difficult to get the qualifications / skills required

It would cost too much money

Would not be able to study / work in that city / town

I don't think it would be suitable for people of certain ethnic backgrounds / races

It wouldn't suit the personal circumstances

Am too old to change careers / jobs now

I don't think it would be suitable for gender-diverse people

What, if any, of the following things do you think would make it difficult for you to personally have a career in the construction industry if you wanted to?

Total Students (n=273) – Māori (n=61), Pacific (n=40), Asian (n=59), NZ European (n=180)

*Standard significance testing at 95% confidence level applied:
green /red indicates a statistically significant increase/
decrease compared to the total*

CONSTRUCTION INDUSTRY

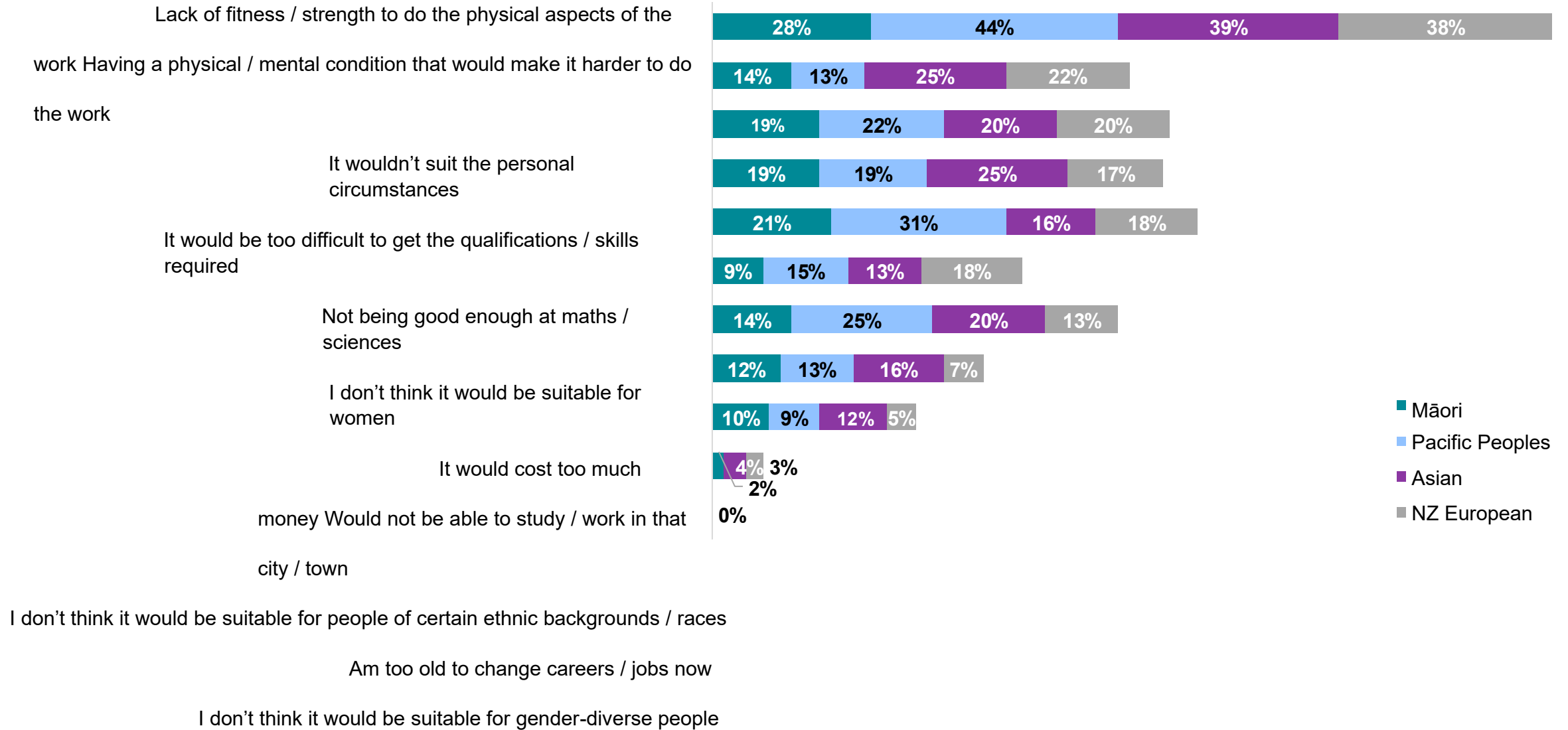
Like Students, the primary concern for Young Adults is the *lack of fitness / strength to do the physical aspects of the work*. There are also concerns about *having a physical / mental condition that would make the work harder & personal circumstances posing a challenge*.

Construction industry career barriers –Young Adults

QC2b:

Base:

construction industry if you wanted to?



QC2b:

Base:

construction industry if you wanted to?

What, if any, of the following things do you think would make it difficult for you to personally have a career in the construction industry if you wanted to?

Total Young Adults (n=227) – Māori (n=42), Pacific (n=32), Asian (n=52), NZ European (n=145)

CONSTRUCTION INDUSTRY

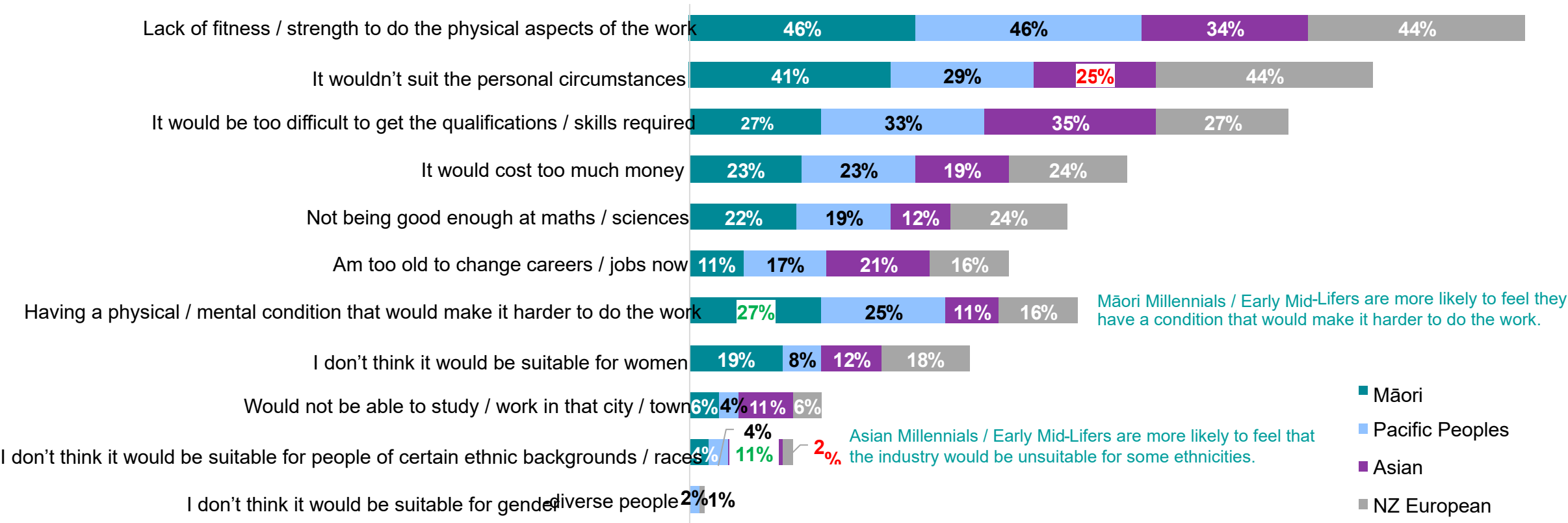
For Millennials / Early Mid-Lifers, the data indicates that as people age, concerns about *personal circumstances* & the *cost of qualifications* become more prominent, while the *lack of fitness / strength* remains the top worry. This highlights the need for the industry to communicate the variety of roles available, as not all of them require physical strength.



QC2b:
Base:

construction industry if you wanted to?

Construction industry career barriers – Millennials / Early MidLifers



What, if any, of the following things do you think would make it difficult for you to personally have a career in the construction industry if you wanted to?

Total Millennials / Early Mid-Lifers (n=429) – Māori (n=77), Pacific (n=52), Asian (n=98), NZ European (n=280)

Standard significance testing at 95% confidence level applied:
green / red indicates a statistically significant increase / decrease compared to the total

QC2b:
Base:

construction industry if you wanted to?



CONSTRUCTION CAREER UNDERSTANDING & BARRIERS: KEY POINTS

Many people simply feel that careers in the construction industry would be too physically & mentally demanding, or just too hard, costly, or inconvenient to upskill for.

There is a limited self-perceived understanding of construction industry careers. Notably, Asian and Pacific People display a higher understanding, but this may reflect their current industry presence and thus risks being overly narrow.

The industry is predominantly seen as physically demanding 'tradie' work, with many citing physical strength, fitness, or math/science skills as barriers. Older individuals feel that a career change into these sectors is unsuitable due to physical demands, personal circumstances, qualification barriers, and financial constraints.

A significant proportion, including 40% of Pacific Students and 25% of Young Asian Adults, believe their physical or mental conditions would hinder them, although these figures exceed the national disability rates, suggesting possible misconceptions. Of note is that quite large proportions also cited that they had a *physical or mental condition that would make it harder for them to do the work* (e.g. 40% of Pacific Students, 25% of Young Asian Adults). This is much higher than the 13% of New Zealanders reporting some neurodiversity¹ and the 14% with a limiting physical disability², so we suggest there may be some misconceptions about how limiting some conditions really are for careers in these sectors – people may be discounting their ability when in fact they could well find good careers in these industries.

1. <https://diversityworksnz.org.nz/news-resources/news/neurodivergent-workers-overlooked-in-new-zealand/>

2. <https://www.stats.govt.nz/assets/Uploads/Disability-survey/Disability-survey-2013/Disability-survey-2013-additional-documents/Disability-Survey-2013.pdf>

CIVIL INFRASTRUCTURE INDUSTRY

BUILDING, CONSTRUCTION & CIVIL



WAIHANGARA RAU
Construction and
Infrastructure



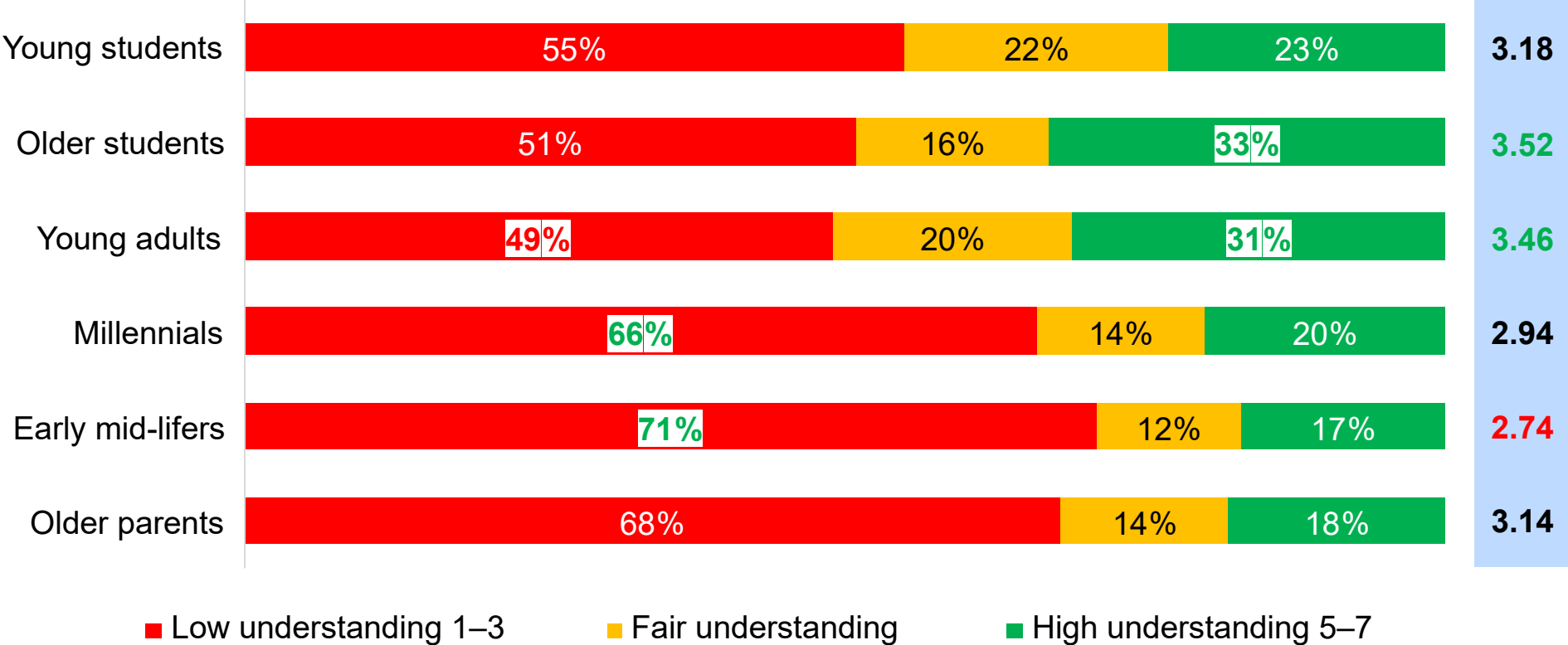
INFRASTRUCTURE CAREER PERCEPTIONS

Understanding of the civil infrastructure industry is generally low across all groups, though Older Students & Young Adults have a significantly higher level of understanding.

**Understanding careers in the civil infrastructure industry –
Life stages**

Mean

CIVIL INFRASTRUCTURE INDUSTRY



How well do you think that you personally understand what a career in the civil infrastructure industry would be like?
Total sample (n=1,000) – Young Students (n=141), Older Students (n=145), Young Adults (n=232), Millennials (n=305), Early Mid-Lifers (n=155), Older Parents (n=22*). ***Caution:** Low base size (n<30).

Standard significance testing at 95% confidence level applied:
green /red indicates a statistically significant increase/
decrease compared to the total

QC3a:
Base:



CIVIL INFRASTRUCTURE INDUSTRY

Māori Students have a significantly lower level of understanding of the civil infrastructure industry, in contrast with Pacific & Asian Students. This indicates that there is a need for more extensive outreach or educational efforts for Māori Students.

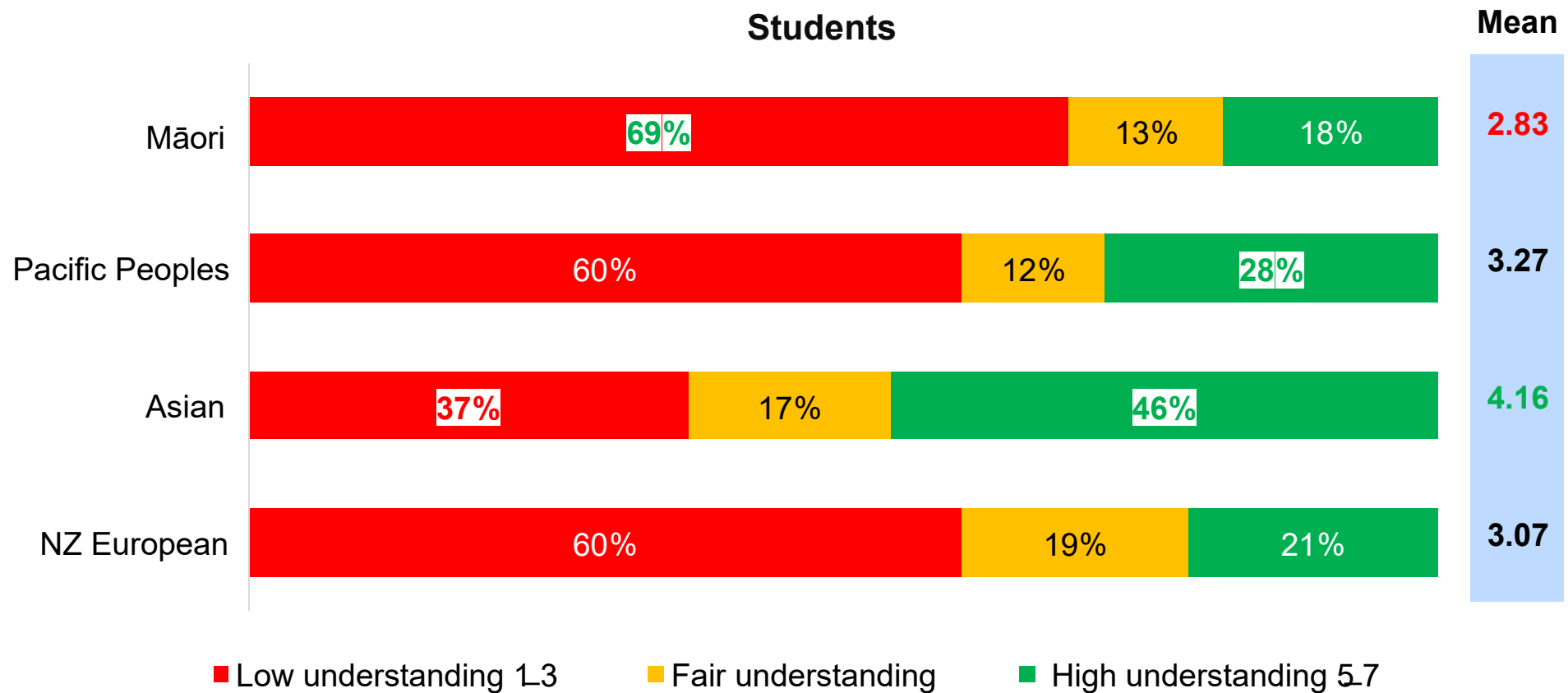
QC3a:

Base:



CIVIL INFRASTRUCTURE INDUSTRY

Understanding careers in the civil infrastructure industry – Students



How well do you think that you personally understand what a career in the civil infrastructure industry would be like?

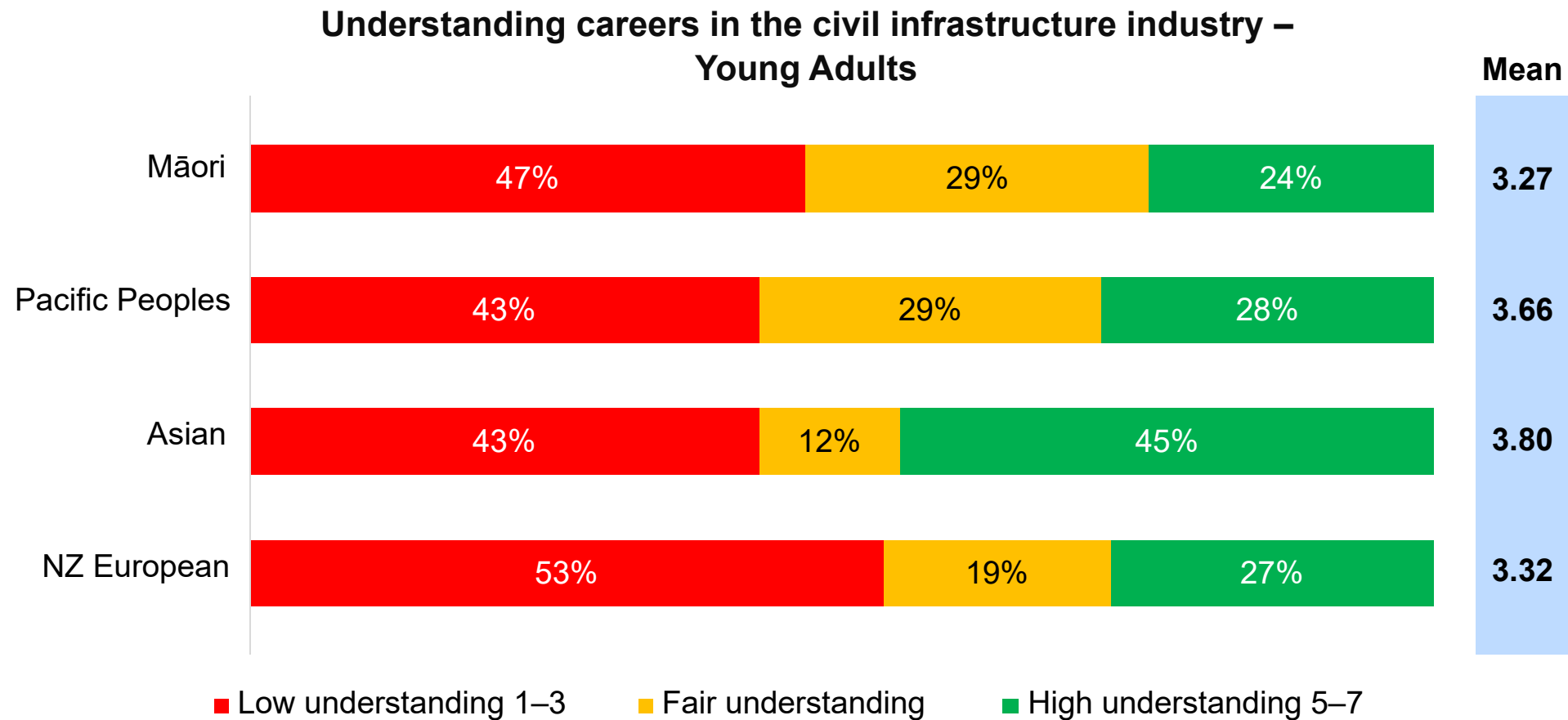
Total Students (n=273) – Māori (n=61), Pacific (n=40), Asian (n=59), NZ European (n=180)

QC3a:

Base:



(Self-rated) understanding of careers in the civil infrastructure industry is generally low among Young Adults, regardless of ethnicity. This suggests that overall education & outreach to Young Adults about this industry need to be improved.



QC3a:
Base:

CIVIL INFRASTRUCTURE INDUSTRY

How well do you think that you personally understand what a career in the civil infrastructure industry would be like?

Total Young Adults (n=227) – Māori (n=42), Pacific (n=32), Asian (n=52), NZ European (n=145)

CIVIL INFRASTRUCTURE INDUSTRY

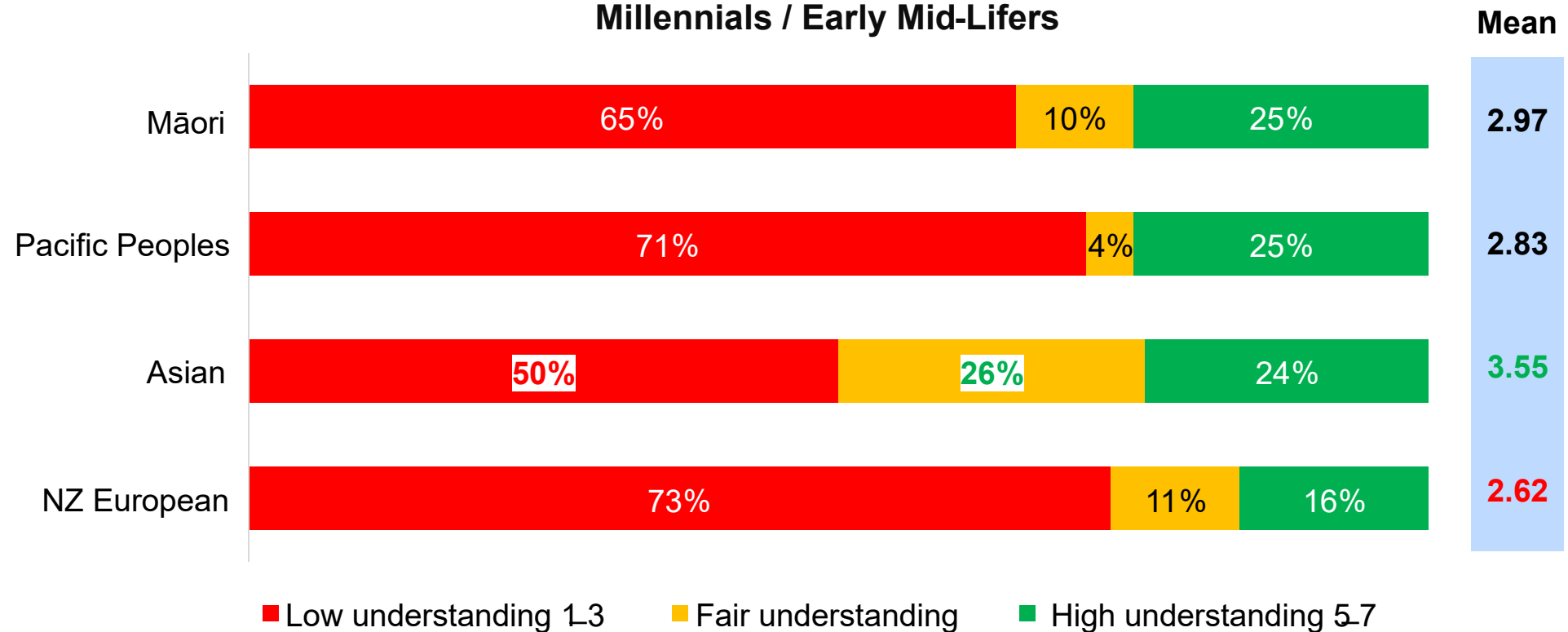
Similar to Young Adults, Millennials / Early Mid-Lifers also have a low understanding of civil infrastructure careers, although those in the Asian group are more neutral. It is important to note that NZ Europeans consistently show lower understanding across various age groups, which may suggest that this industry isn't on the radar for many of them.

QC3a:

Base:



Understanding careers in the civil infrastructure industry – Millennials / Early Mid-Lifers



How well do you think that you personally understand what a career in the civil infrastructure industry would be like?

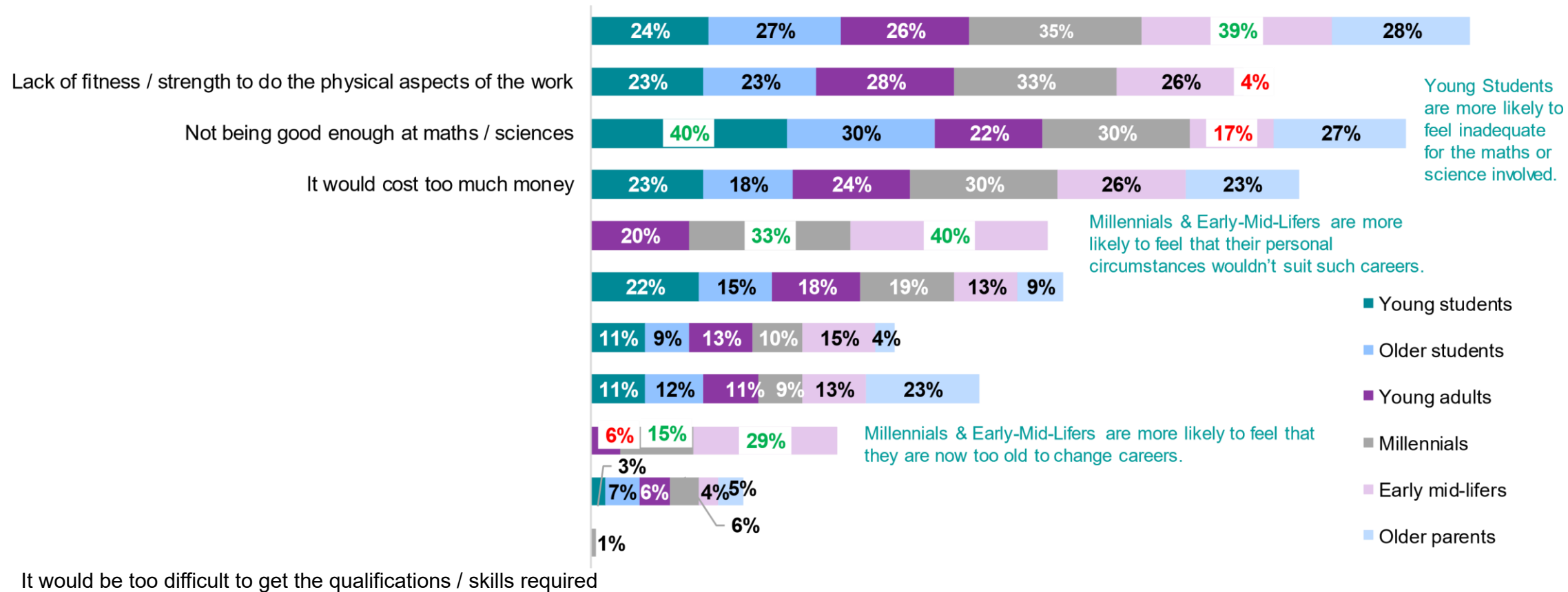
Total Millennials / Early Mid-Lifers (n=429) – Māori (n=77), Pacific (n=52), Asian (n=98), NZ European (n=280)

QC3a:

Base:

CIVIL INFRASTRUCTURE INDUSTRY

Across all life-stages, a common barrier is the perceived challenge of *gaining the necessary skills / qualifications* for the civil infrastructure industry, particularly prominent among Early Mid-Lifers. The reason could be that individuals in this phase of life are well settled in their existing careers & as such, acquiring new qualifications to switch careers can seem too difficult. **Civil infrastructure industry career barriers –Life stages**



QC3b:

Base:

nf

It wouldn't suit the personal circumstances

Having a physical / mental condition that would make it harder to do the work

I don't think it would be suitable for women

Would not be able to study / work in that city / town

Am too old to change careers / jobs now

I don't think it would be suitable for people of certain ethnic backgrounds / races

I don't think it would be suitable for gender-diverse people

QC3b: What, if any, of the following things do you think would make it difficult for you to personally have a career in the civil infrastructure industry if you wanted to?

Base: Total sample (n=1,000) – Young Students (n=141), Older Students (n=145), Young Adults (n=232), Millennials (n=305), Early Mid-Lifers (n=155), Older Parents (n=22*). ***Caution:** Low base size (n<30).

CIVIL INFRASTRUCTURE INDUSTRY



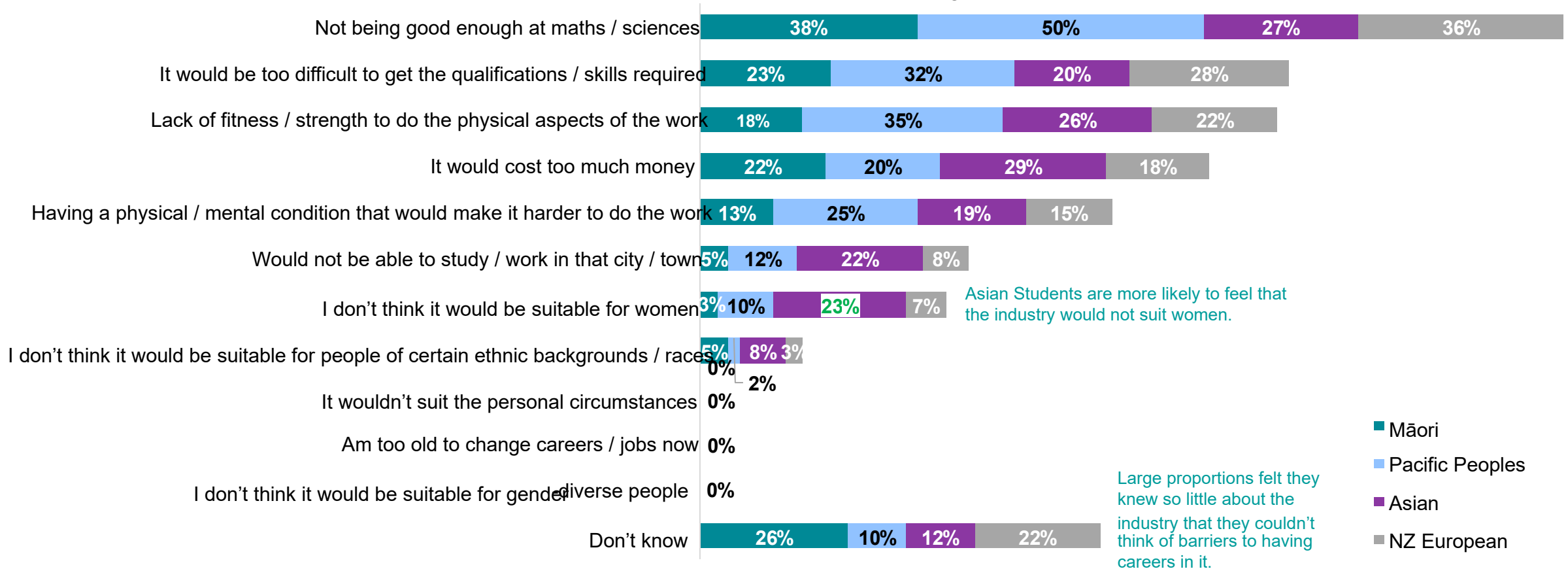
Students are primarily concerned with *not being good enough at maths / sciences & it being too difficult to get the qualifications / skills required*. This suggests a prevalent perception that one must be highly academic to pursue a career in the civil infrastructure industry.

QC3b:

Base:

nf

Civil infrastructure industry career barriers –Students



What, if any, of the following things do you think would make it difficult for you to personally have a career in the civil infrastructure industry if you wanted to?

Total Students (n=273) – Māori (n=61), Pacific (n=40), Asian (n=59), NZ European (n=180)

QC3b:

Base:

nf

CIVIL INFRASTRUCTURE INDUSTRY

Young Adults are primarily concerned about *not having the physical strength* for jobs in the civil infrastructure industry, even though the industry offers many roles that don't require physical labour. This suggests that many Young Adults might have the mistaken impression that most jobs in this industry are physically demanding.

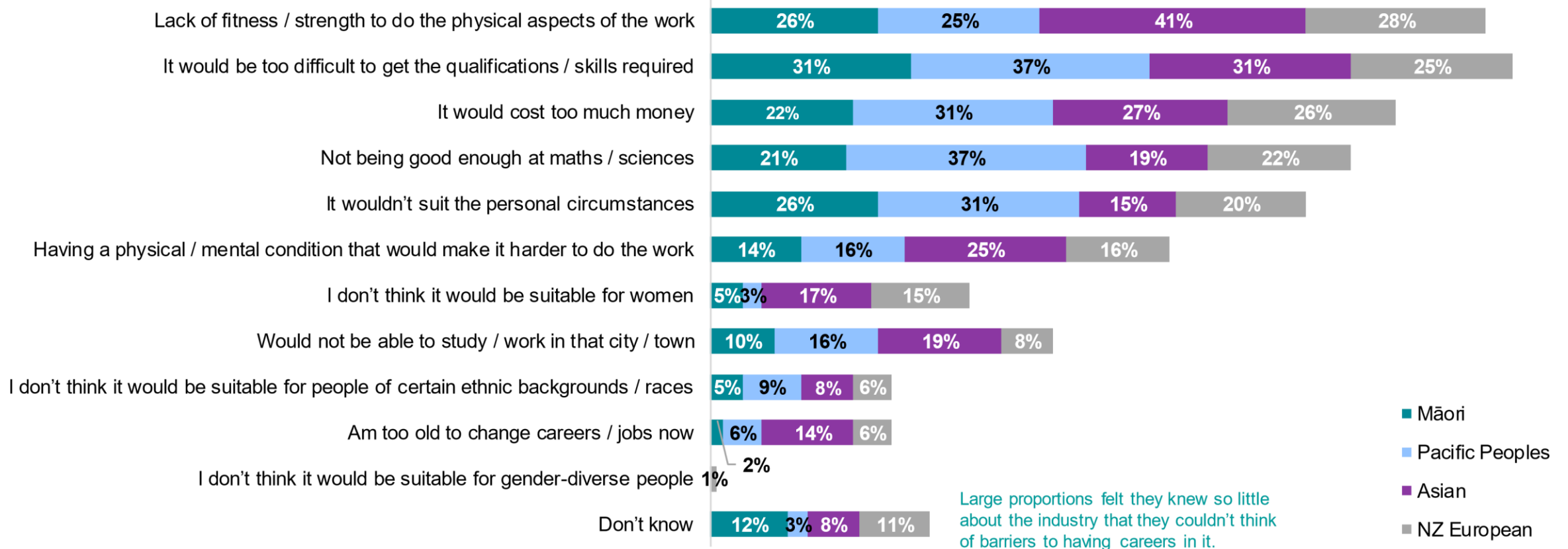


QC3b:

Base:

nf

Civil infrastructure industry career barriers –Young Adults



What, if any, of the following things do you think would make it difficult for you to personally have a career in the civil infrastructure industry if you wanted to?

Total Young Adults (n=227) – Māori (n=42), Pacific (n=32), Asian (n=52), NZ European (n=145)

QC3b:

Base:

nf

CIVIL INFRASTRUCTURE INDUSTRY



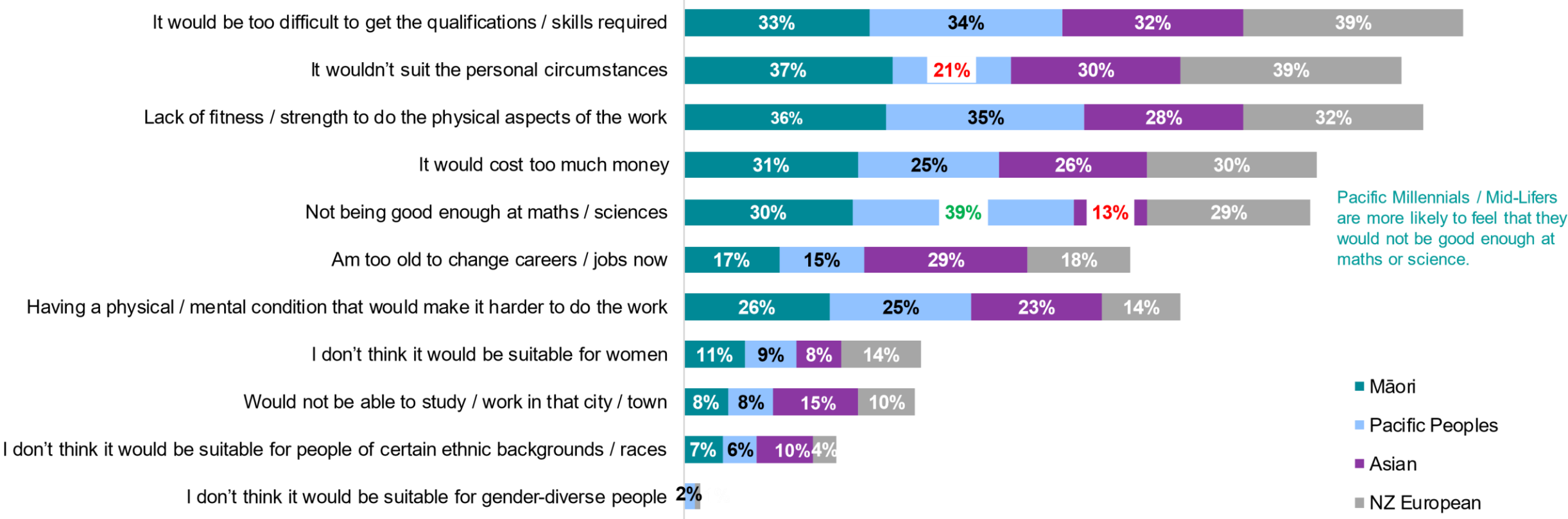
The major concern for Millennials / Early Mid-Lifers is the perceived *difficulty of getting qualifications / skills*. Given that individuals in this life stage often have established careers & personal responsibilities, such as family & children, the prospect of pursuing new qualifications for a career shift may appear overly daunting.

QC3b:

Base:

nf

Civil infrastructure industry careerbarriers –Millennials / Early Mid-Lifers



What, if any, of the following things do you think would make it difficult for you to personally have a career in the civil infrastructure industry if you wanted to?
Total Millennials / Early Mid-Lifers (n=429) –Māori (n=77), Pacific (n=52), Asian (n=98), NZ European (n=280)

QC3b:
Base:

nf

CIVIL INFRASTRUCTURE CAREER UNDERSTANDING & BARRIERS: KEY POINTS

The biggest barriers to considering civil infrastructure careers are basic but problematic.

Understanding of the civil infrastructure industry is generally low among all demographics, with Older Students, Young Adults, and Pacific and Asian Students showing a higher degree of comprehension. This highlights the increased exposure to career options these younger demographics receive.

Conversely, Māori Students display a significantly lower understanding, suggesting potential barriers to the same learning opportunities.

Barriers to considering a career in civil infrastructure include the perceived difficulty and financial burden of obtaining necessary qualifications, particularly in math and science, and a perceived lack of physical fitness and strength.

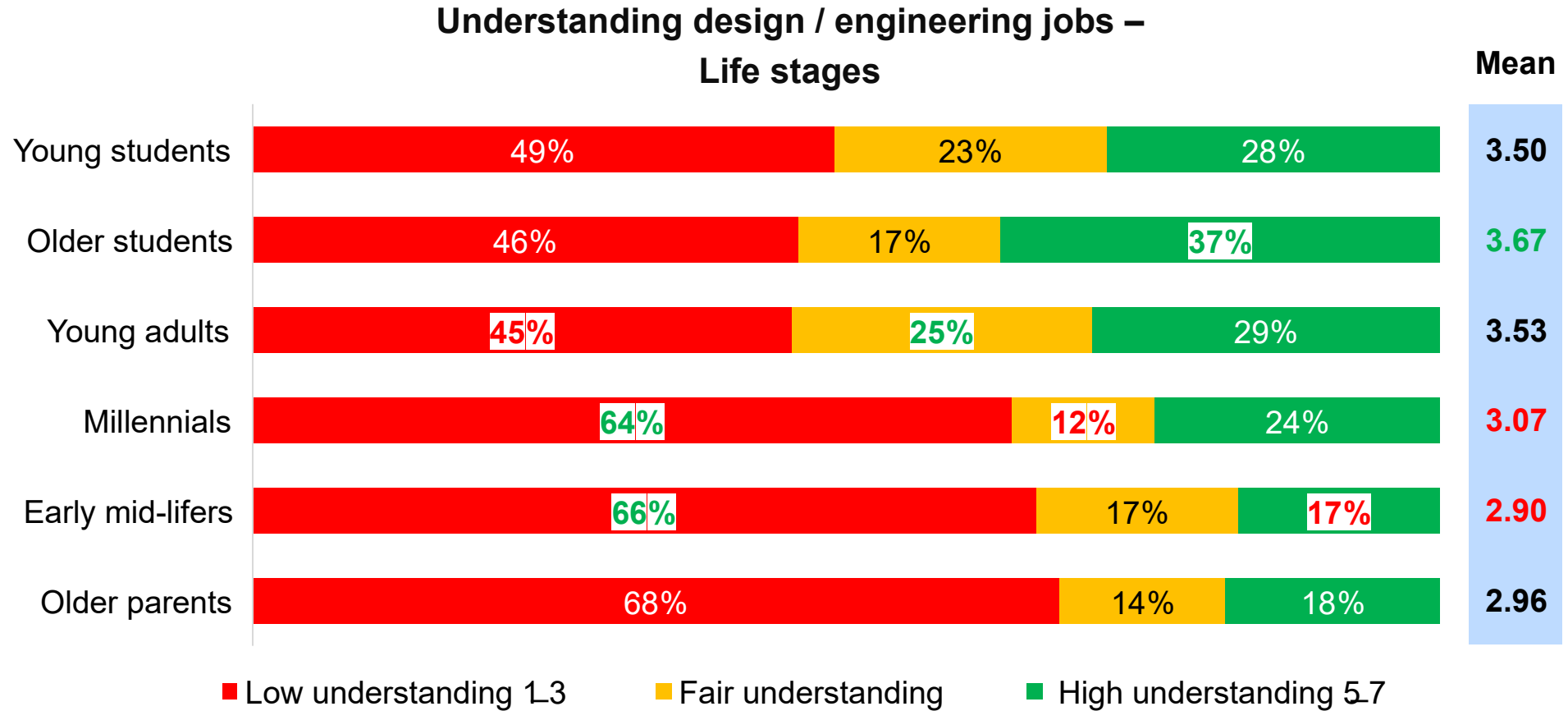
The nature of these barriers - mental, physical, and financial - are fundamental and may present a significant challenge in terms of overturning these misconceptions.

DESIGN / ENGINEERING BUILDING, CONSTRUCTION & CIVIL INFRASTRUCTURE CAREER PERCEPTIONS



DESIGN / ENGINEERING

There is limited understanding of design / engineering roles within the construction / civil infrastructure sector across all life stages, though Millennials & Early Mid-Lifers are particularly lacking it.



QC4a: How well do you think that you personally understand what a design or engineering job in the construction or civil infrastructure industries would be like?

Base: Total sample (n=1,000) – Young Students (n=141), Older Students (n=145), Young Adults (n=232), Millennials (n=305), Early Mid-Lifers (n=155), Older Parents (n=22*). ***Caution:** Low base size (n<30).

Standard significance testing at 95% confidence level applied:

green /red indicates a statistically significant **increase/**
decrease compared to the total

DESIGN / ENGINEERING



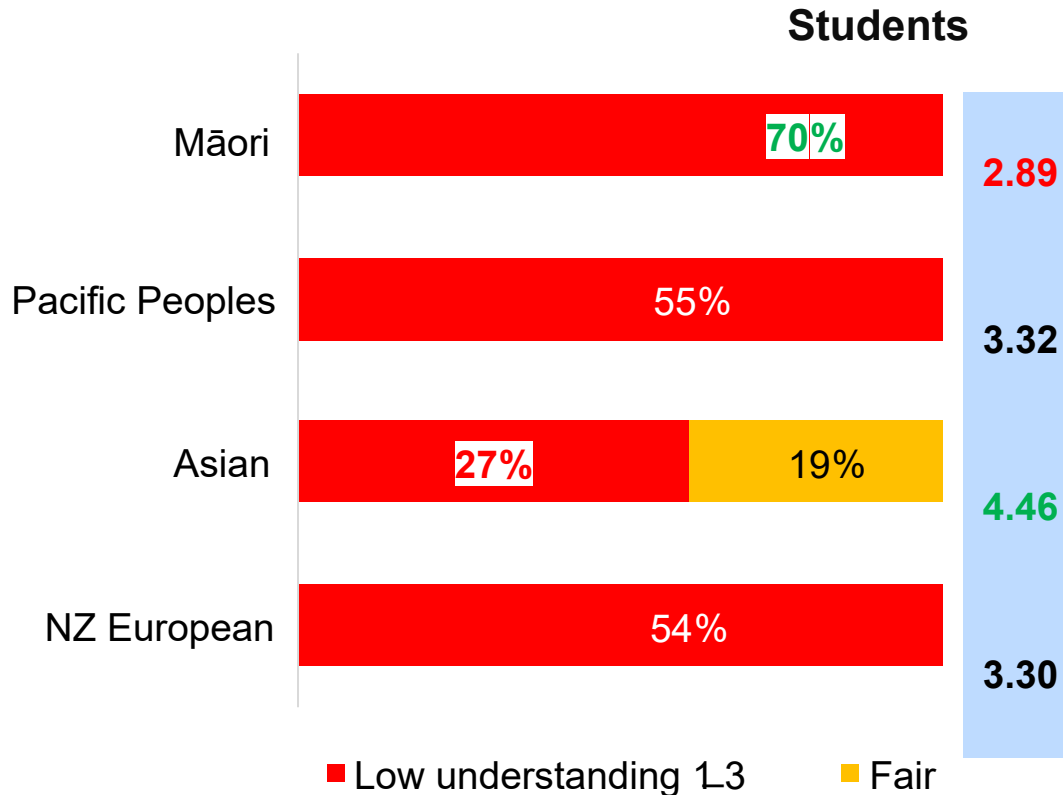
Asian Students have the highest level of understanding of design / engineering roles within the construction / civil infrastructure sector. This may well be due to the notable representation of individuals with Asian heritage in STEM areas. In contrast, Māori students are notably more likely to state they have a poor understanding.

Understanding design / engineering jobs –

Mean

QC4a: *How do you think the construction / infrastructure industries would be like?*
Base:

DESIGN / ENGINEERING



How well do you think that you personally understand what a design or engineering job in the construction or civil infrastruc

Total Students (n=273) – Māori (n=61), Pacific (n=40), Asian (n=59), NZ European (n=180)

Standard significance testing at 95% confidence level applied:
green /red indicates a statistically significant increase/
decrease compared to the total

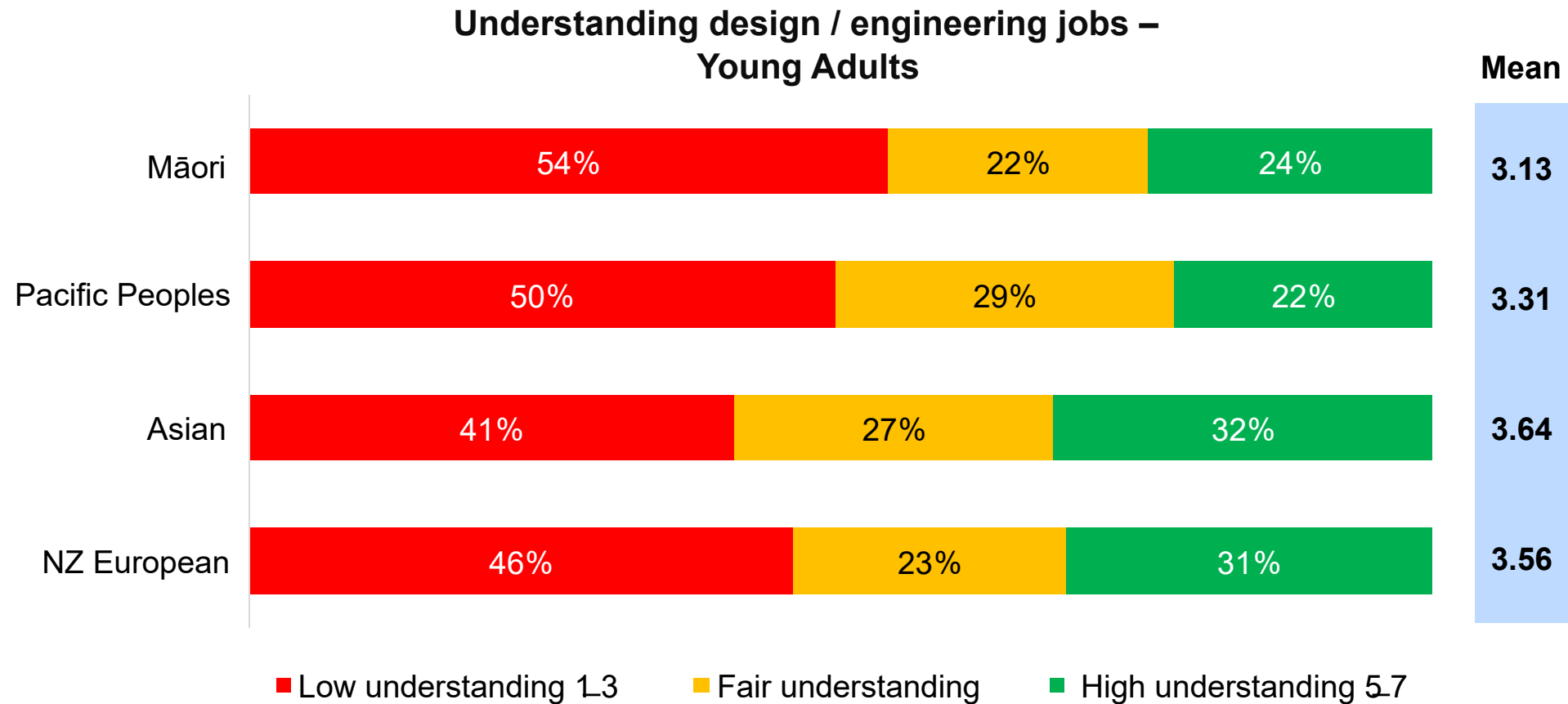
Young Adults' low level of understanding of design / engineering roles within the construction / civil infrastructure sector is fairly uniform across all ethnicities.

QC4a:

Base:

ture industries would be like?

DESIGN / ENGINEERING



How well do you think that you personally understand what a design or engineering job in the construction or civil infrastructure industries would be like?

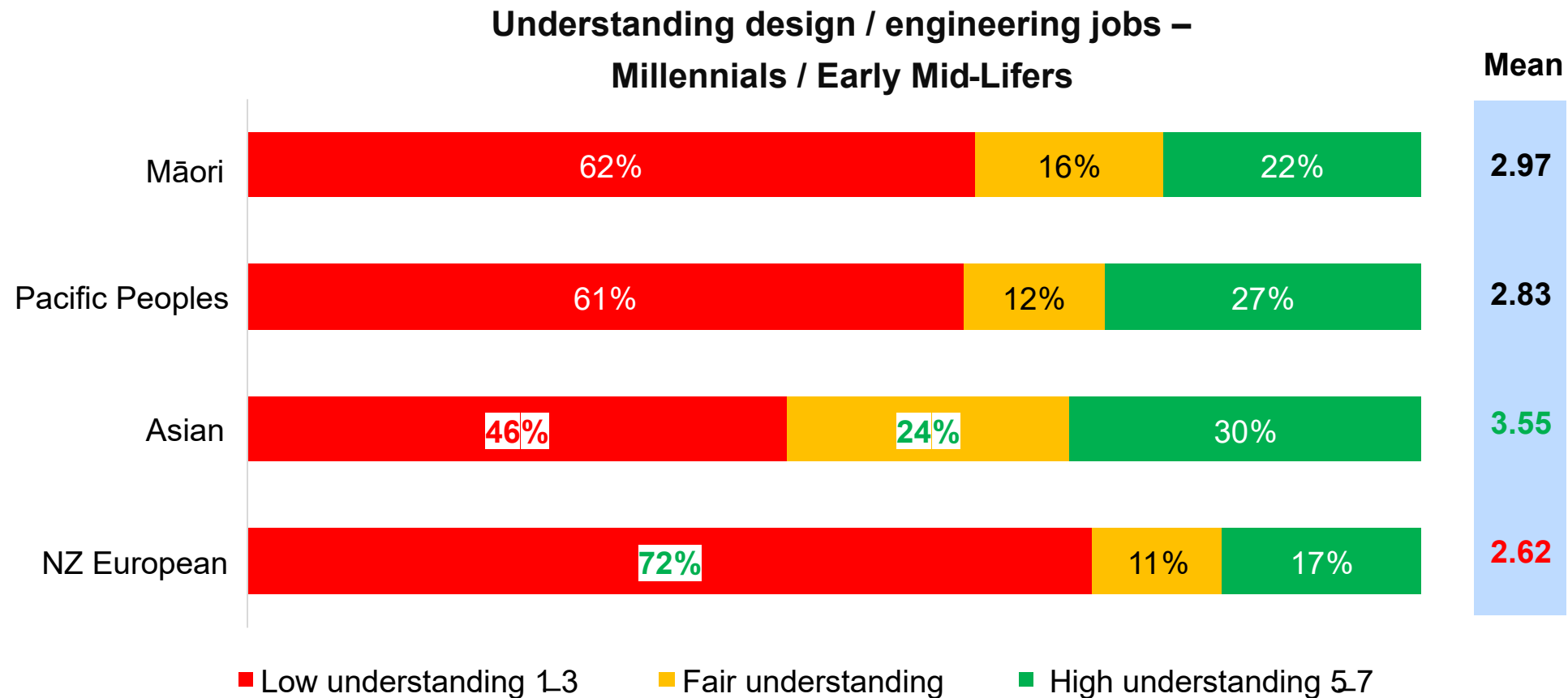
Total Young Adults (n=227) – Māori (n=42), Pacific (n=32), Asian (n=52), NZ European (n=145)

QC4a: Base:



DESIGN / ENGINEERING

NZ European Millennials / Early Mid-Lifers have significantly lower understanding of design / engineering roles within the construction / civil infrastructure sector, whereas Asian Millennials / Early Mid-Lifers feel they know somewhat more.



QC4a: *ture industries would be like?*
Base:



DESIGN / ENGINEERING

How well do you think that you personally understand what a design or engineering job in the construction or civil infrastruc

Total Millennials / Early Mid-Lifers (n=429) –Māori (n=77), Pacific (n=52), Asian (n=98), NZ European (n=280)

Standard significance testing at 95% confidence level applied:
green /red indicates a statistically significant increase/
decrease compared to the total

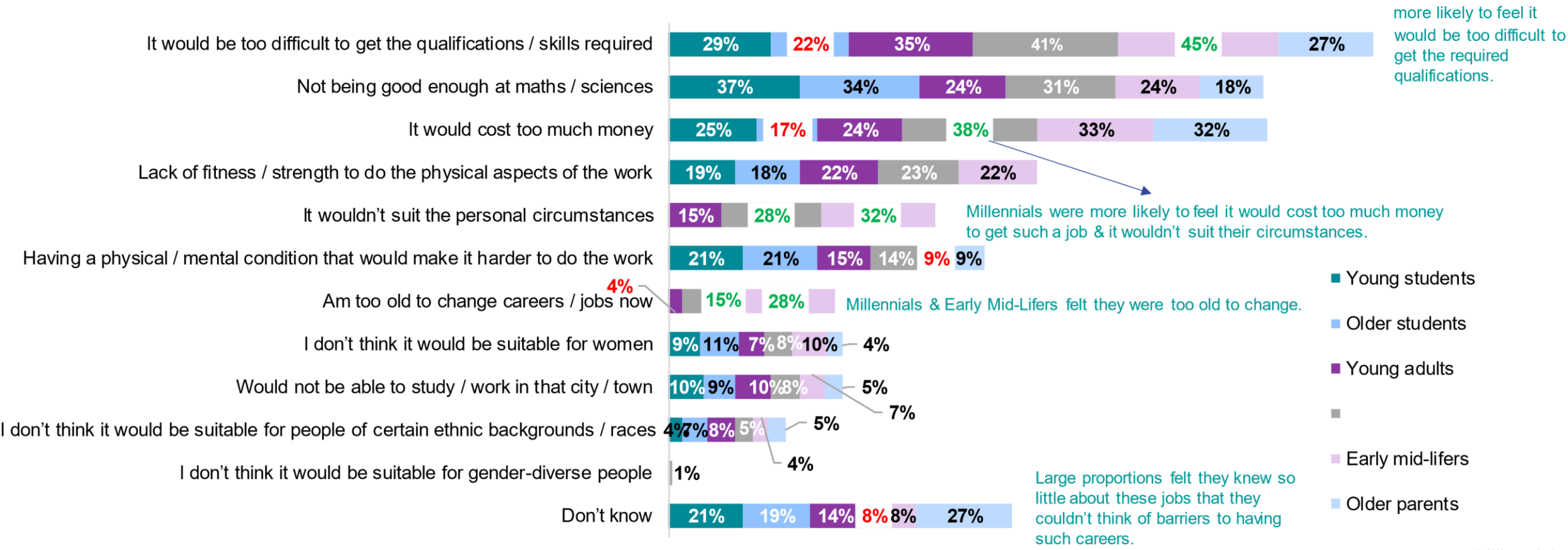
QC4a: *ture industries would be like?*
Base:



DESIGN / ENGINEERING

The predominant concern across all demographics is the perceived *difficulty of acquiring the necessary qualifications / skills* for roles in the construction / civil infrastructure sector. This may be attributed to the fact that most individuals are deeply established in their current professional trajectories & the prospect of acquiring new expertise for a career transition may seem daunting. **Design / engineering job barriers –Life stages**

Early Mid-Lifers were



QC4b: Base:

DESIGN / ENGINEERING

What, if any, of the following things do you think would make it difficult for you to personally have a design or engineering job in the construction or civil infrastructure industries if you wanted to?

Total sample (n=1,000) – Young Students (n=141), Older Students (n=145), Young Adults (n=232), Millennials (n=305), Early Mid-Lifers (n=155), Older Parents (n=22*). ***Caution:** Low base size (n<30).

Standard significance testing at 95% confidence level applied:

green / red indicates a statistically significant increase / decrease compared to the total

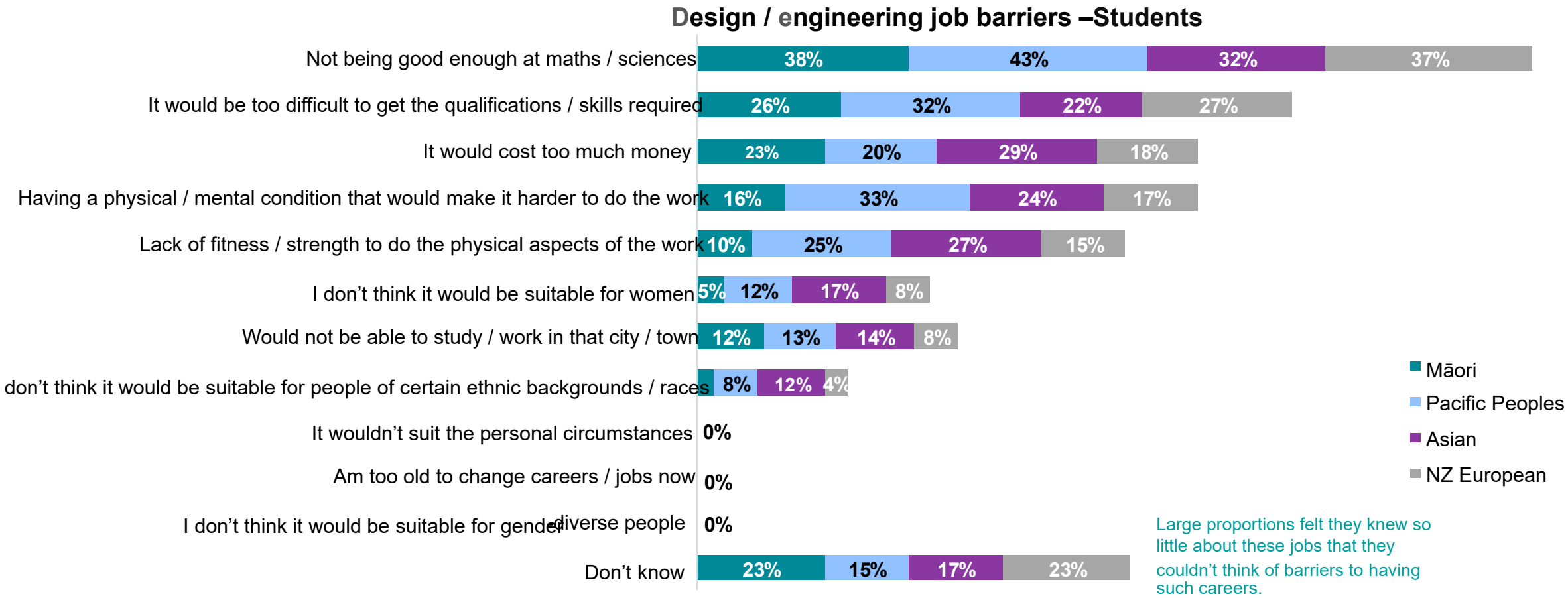


For Students, the primary concern is *not being good enough at maths / sciences*, followed by *being too difficult to get the qualifications / skills required*. This indicates a prevailing perception that high academic achievement is a prerequisite for a career in design / engineering within the construction / civil infrastructure sector.

QC4b:

Base:

job in the construction or civil infrastructure industries if you wanted to?



What, if any, of the following things do you think would make it difficult for you to personally have a design or engineering job in the construction or civil infrastructure industries if you wanted to?

Total Students (n=273) – Māori (n=61), Pacific (n=40), Asian (n=59), NZ European (n=180)

QC4b:
Base:

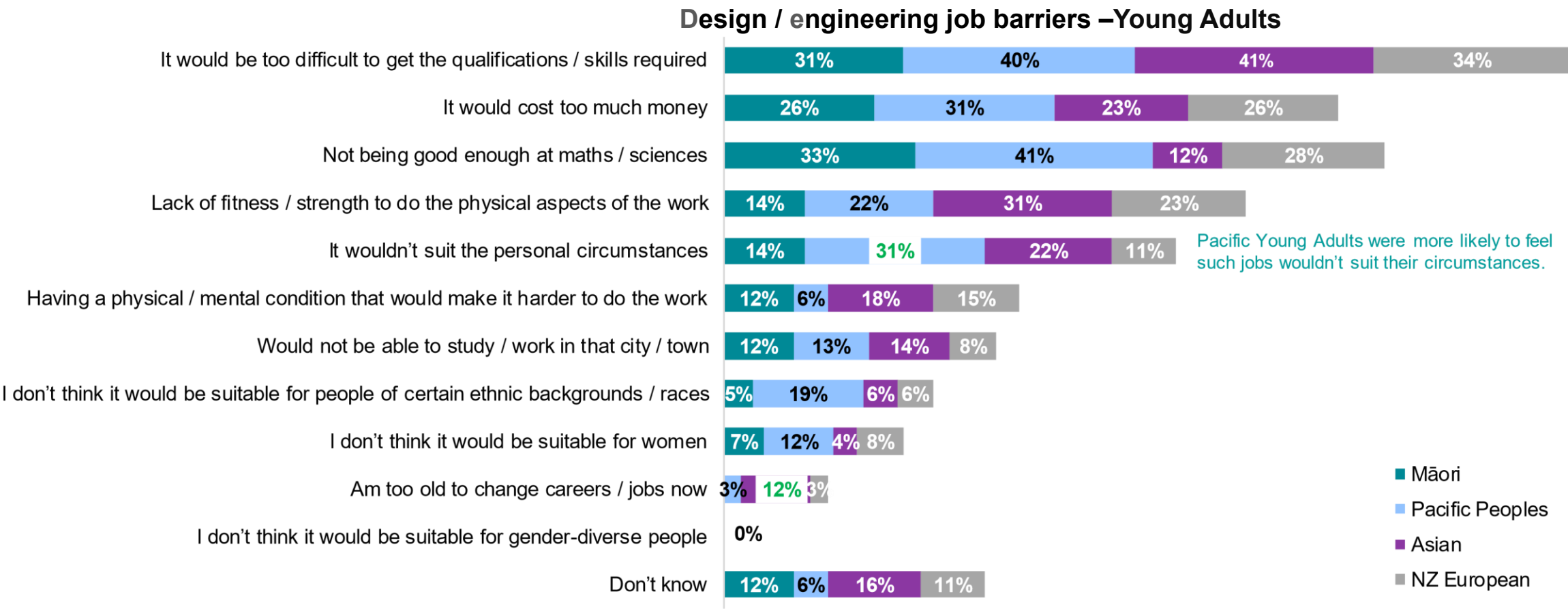
job in the construction or civil infrastructure industries if you wanted to?



DESIGN / ENGINEERING



Young Adults are primarily concerned about the *difficulty of acquiring the qualifications / skills required* & the *financial cost*. This suggests that Young Adults view a career in design / engineering within the construction / civil infrastructure sector as a significant commitment, both in terms of time & financial resources.



What, if any, of the following things do you think would make it difficult for you to personally have a design or engineering job in the construction or civil infrastructure industries if you wanted to?

QC4b:
Base:



DESIGN / ENGINEERING

Total Young Adults (n=227) – Māori (n=42), Pacific (n=32), Asian (n=52), NZ European (n=145)

Standard significance testing at 95% confidence level applied:
green /red indicates a statistically significant *increase/*
decrease compared to the total



Like Young Adults, Millennials / Early Mid-Lifers are primarily concerned about the *difficulty of obtaining the necessary qualifications / skills* for roles in the construction / civil infrastructure sector, as well as the associated *financial cost*. This suggests that these groups perceive a career in design / engineering within these industries as a significant commitment, requiring substantial investment in both time & financial resources.

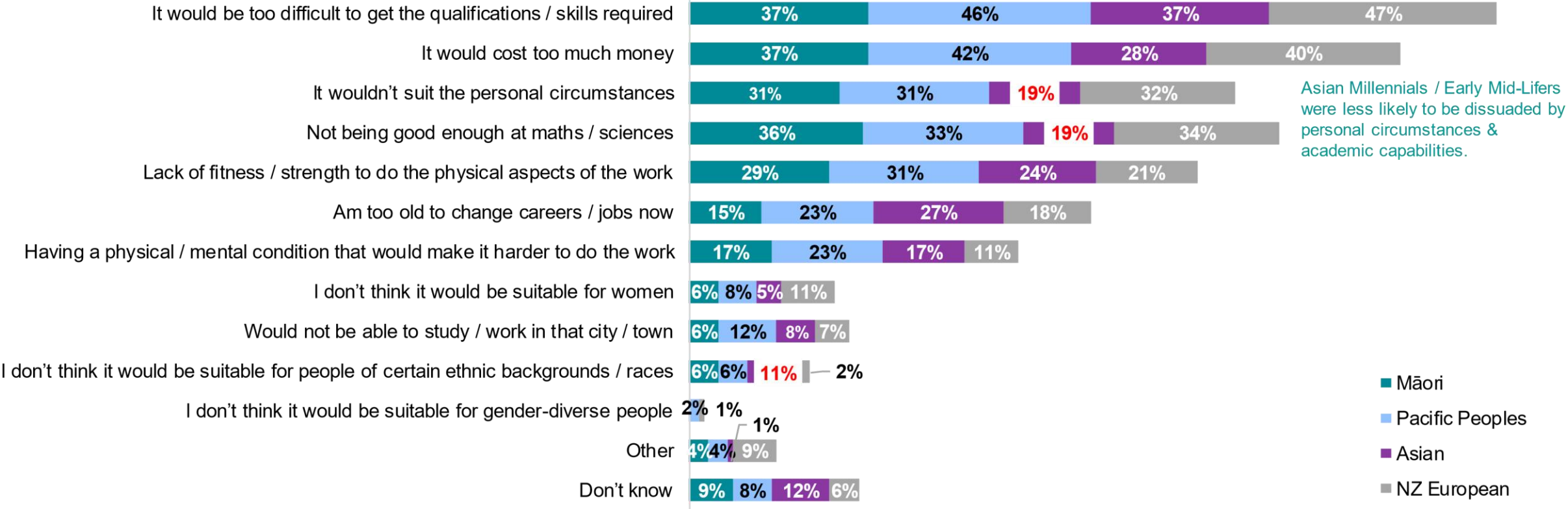
QC4b:
Base:

job in the construction or civil infrastructure industries if you wanted to?



DESIGN / ENGINEERING

Design / engineering job barriers –Millennials / Early Mid-Lifers



What, if any, of the following things do you think would make it difficult for you to personally have a design or engineering job in the construction or civil infrastructure industries if you wanted to?

Total Millennials / Early Mid-Lifers (n=429) –Māori (n=77), Pacific (n=52), Asian (n=98), NZ European (n=280)

Standard significance testing at 95% confidence level applied:
green /red indicates a statistically significant increase/decrease compared to the total

QC4b:
Base:

job in the construction or civil infrastructure industries if you wanted to?

PERCEPTIONS OF DESIGN / ENGINEERING JOBS IN THE CIVIL INFRASTRUCTURE OR CONSTRUCTION INDUSTRIES: KEY POINTS

These roles are seen as too difficult for most – intellectually, practically & financially.

Understanding of design and engineering roles in the construction and civil infrastructure sectors is limited, particularly among Millennials and Early Mid-Lifers.

Representation in these roles is reflected in the understanding levels, with Asian Students/Millennials showing higher comprehension, and Māori Students the least.

This may indicate a self-perpetuating cycle where overrepresentation of some groups fuels consideration amongst said groups and underrepresentation discourages it.

The main barriers to these careers are perceived academic challenges, financial constraints, and personal circumstances, especially among older individuals.

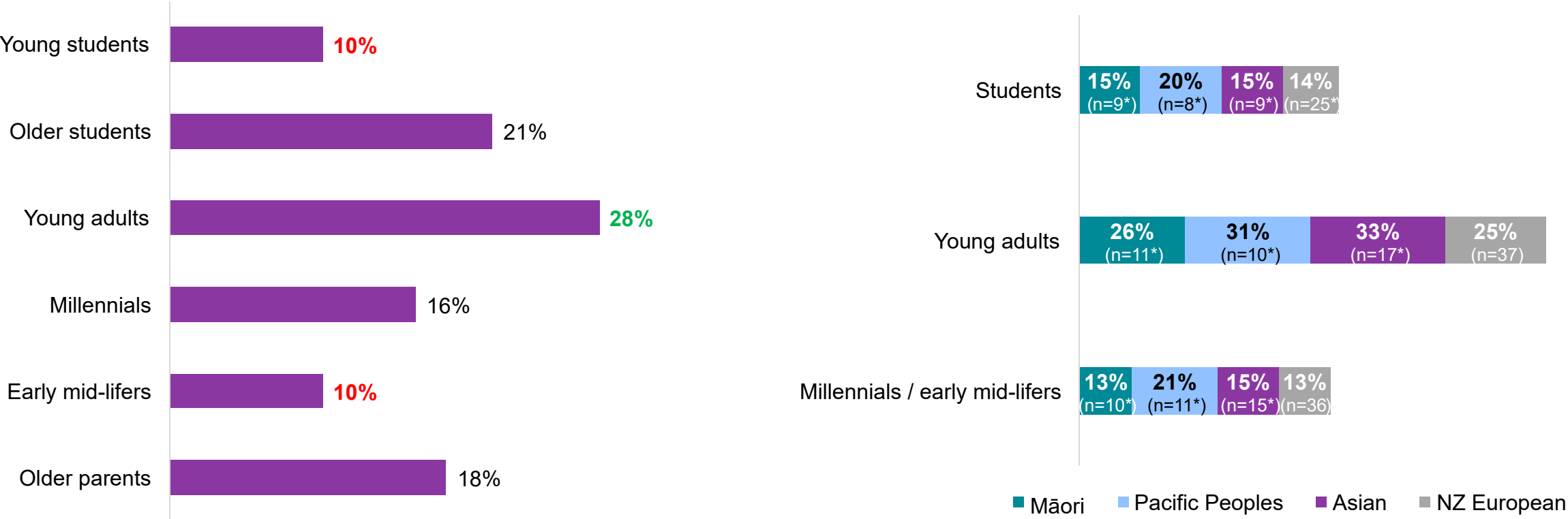
There is a common belief that these roles require significant mental, financial, and time investments.

CAREER EXPLORATION

6

Investigations into the construction & civil infrastructure sectors remain relatively limited across all stages of life. Notably, there is a surge of interest among Young Adults which will reflect their early career stages, but it would be good to have more Students investigating such careers so that they could make more suitable study choices.

Have researched a career in the construction / civil infrastructure industries



QC5: Have you ever investigated or researched what a career in the construction or civil infrastructure industries would be like?

Total sample (n=1,000) – Young Students (n=141), Older Students (n=145), Young Adults (n=232), Millennials (n=305), Early Mid-Lifers (n=155), Older Parents (n=22*). ***Caution:** Low base size (n<30).

Standard significance testing at 95% confidence level applied:



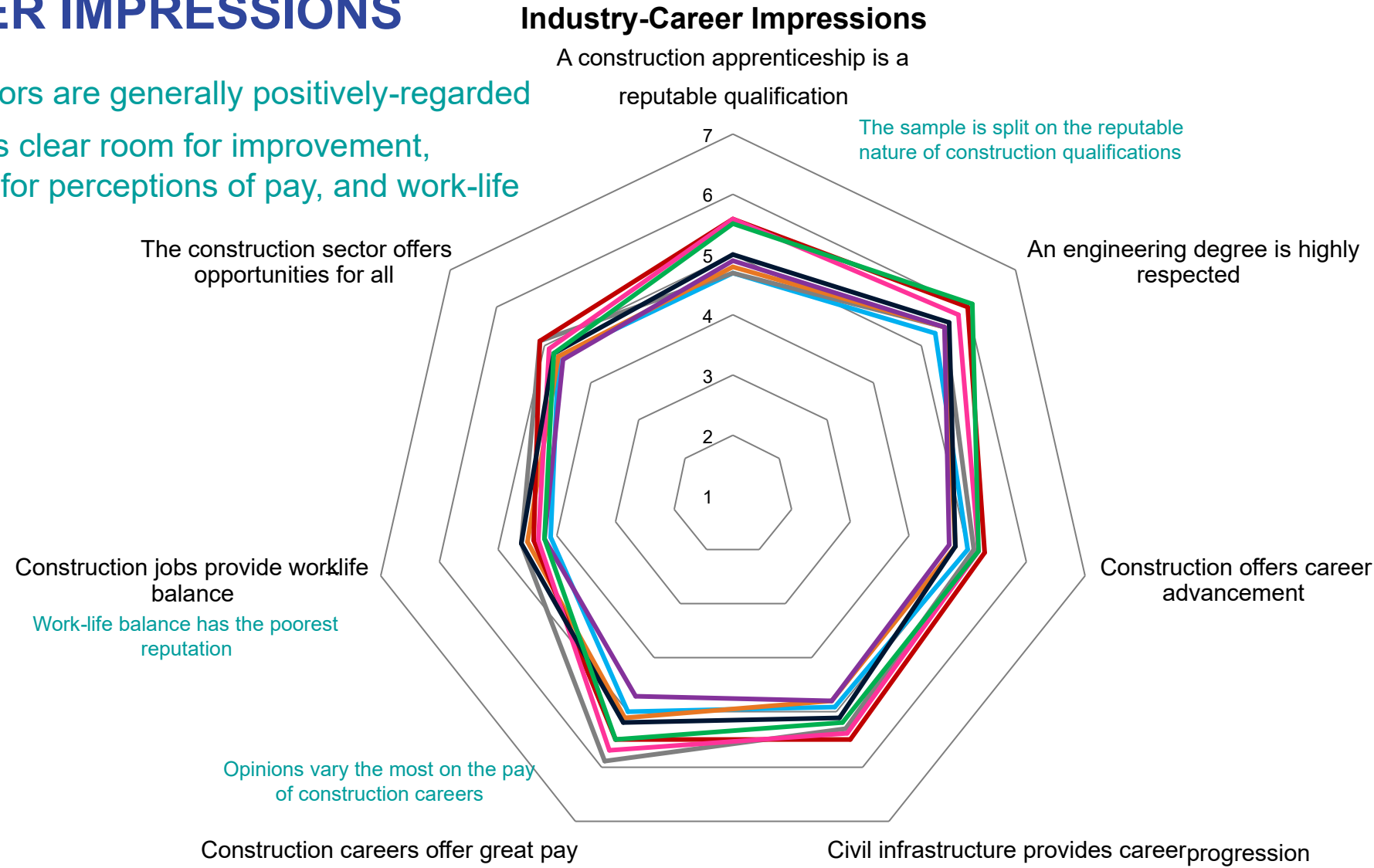
CAREER EXPLORATION

*green /red indicates a statistically significant **increase**/
decrease compared to the total*

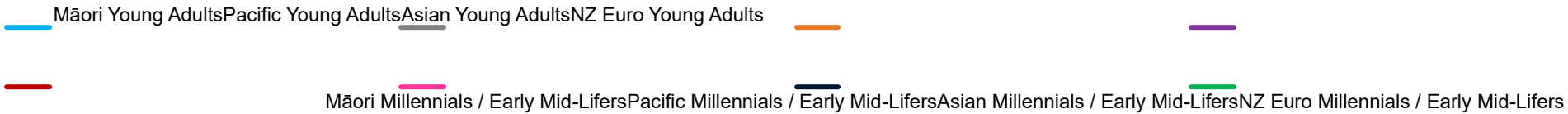
Base:

CAREER IMPRESSIONS

These sectors are generally positively-regarded but there is clear room for improvement, especially for perceptions of pay, and work-life balance.



CAREER EXPLORATION



QC6: How much do you agree or disagree with the following statements?

Most Māori Young Adults have quite positive impressions of careers in these industries, except for *work–life balance in construction jobs*, where 67% disagree / are unsure. This shows that many Māori Young Adults question whether construction jobs will let them balance work with their personal lives.

Career beliefs – Māori Young Adults

Mean

QC6: How much do you agree or disagree with the following statements?

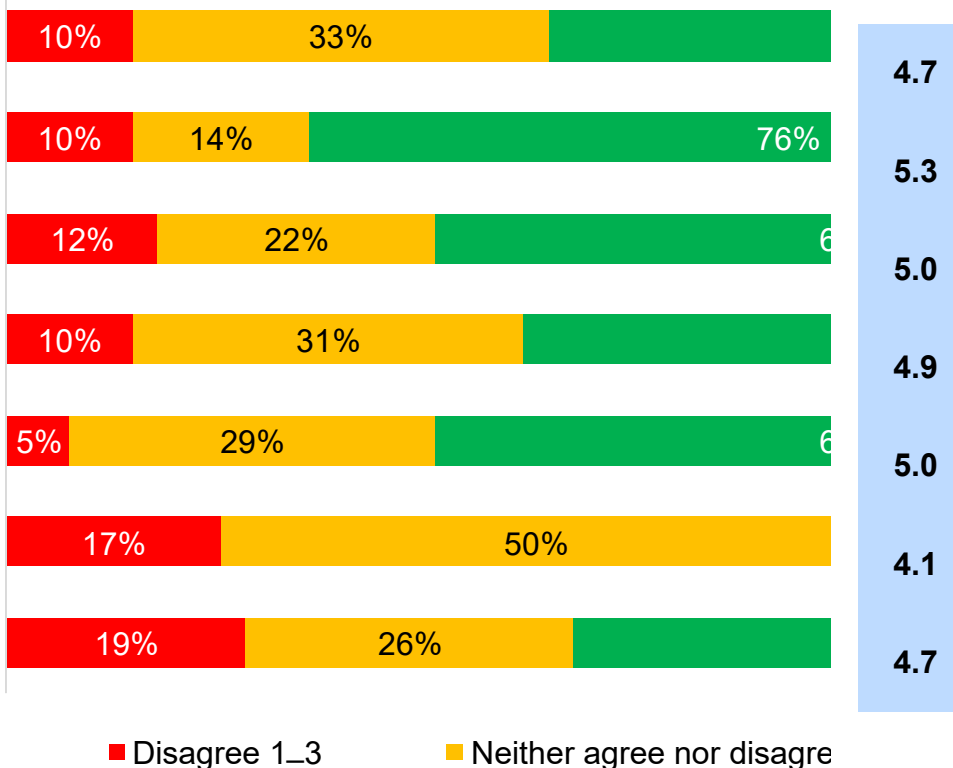
Base: Total Young Adults (n=227)





CAREER EXPLORATION

A construction apprenticeship is a reputable qualification



– Māori (n=42)

Pacific Young Adults also display a relatively positive perception across all statements, particularly in terms of the *career progression offered by the civil infrastructure sector & the opportunities presented by the construction industry*. This indicates a notably positive view of the construction & civil infrastructure fields among Pacific Young Adults.

QC6: How much do you agree or disagree with the following statements?

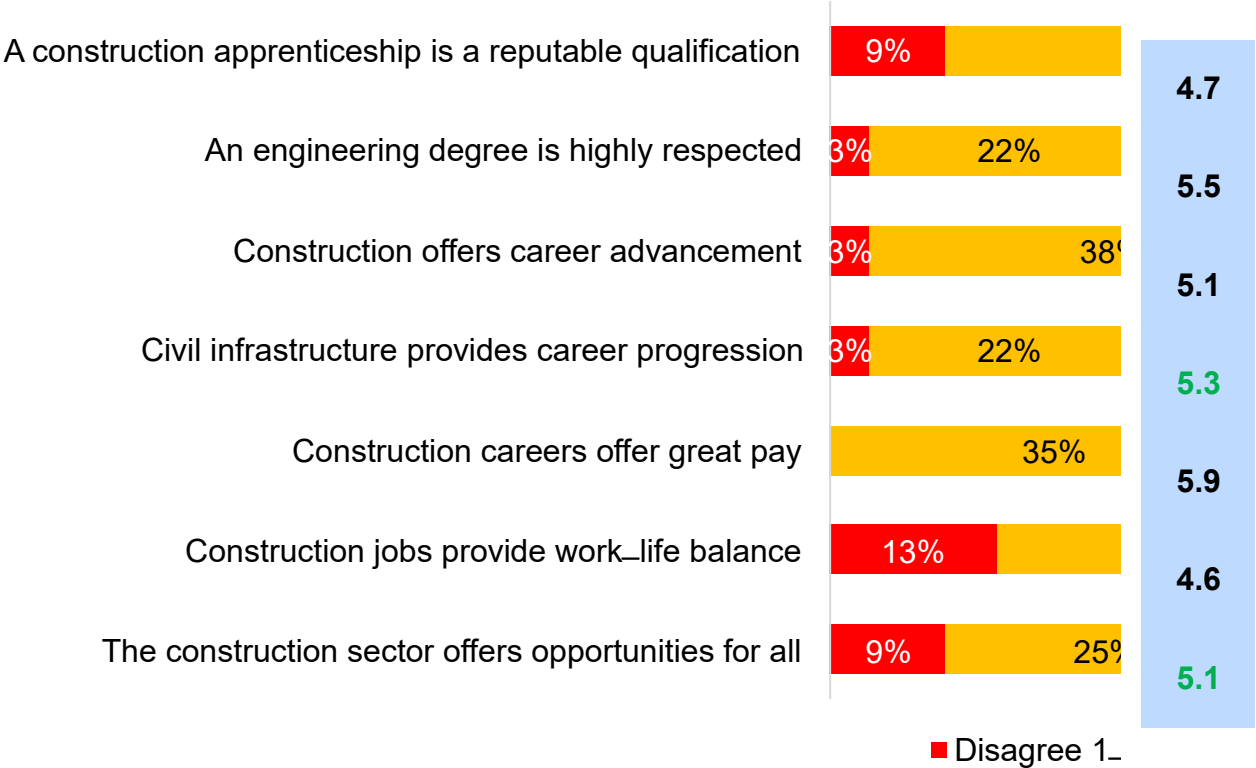
Base: Total Young Adults (n=227) –

CAREER EXPLORATION



Career beliefs – Pacific Young Adults

Mean



Pacific (n=32)

Standard significance testing at 95% confidence level applied:
green /red indicates a statistically significant increase/
decrease compared to the total

QC6: How much do you agree or disagree with the following statements?

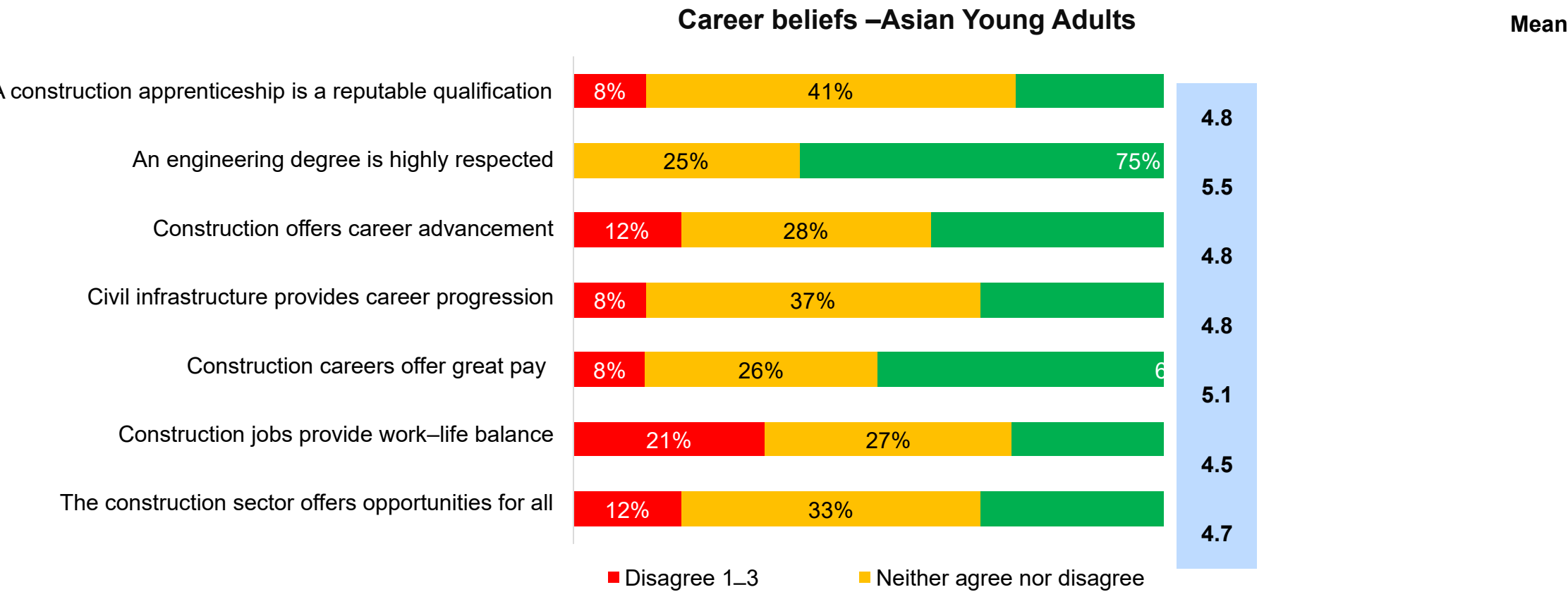
Base: Total Young Adults (n=227)



CAREER EXPLORATION



Similar to their Pacific counterparts, Asian Young Adults show strong agreement levels across all statements. Again, *work–life balance* is the main perceived drawback of construction sector careers.



QC6: How much do you agree or disagree with the following statements?

Base: Total Young Adults (n=227) –



Asian (n=52)

Just like Young Adults from other ethnicities, most NZ Young Adults have positive perceptions of careers in these industries. However, there remains a divergence regarding *work–life balance in construction jobs*, as 66% disagree / remain undecided about this statement.

Career beliefs – NZ European Young Adults

Mean

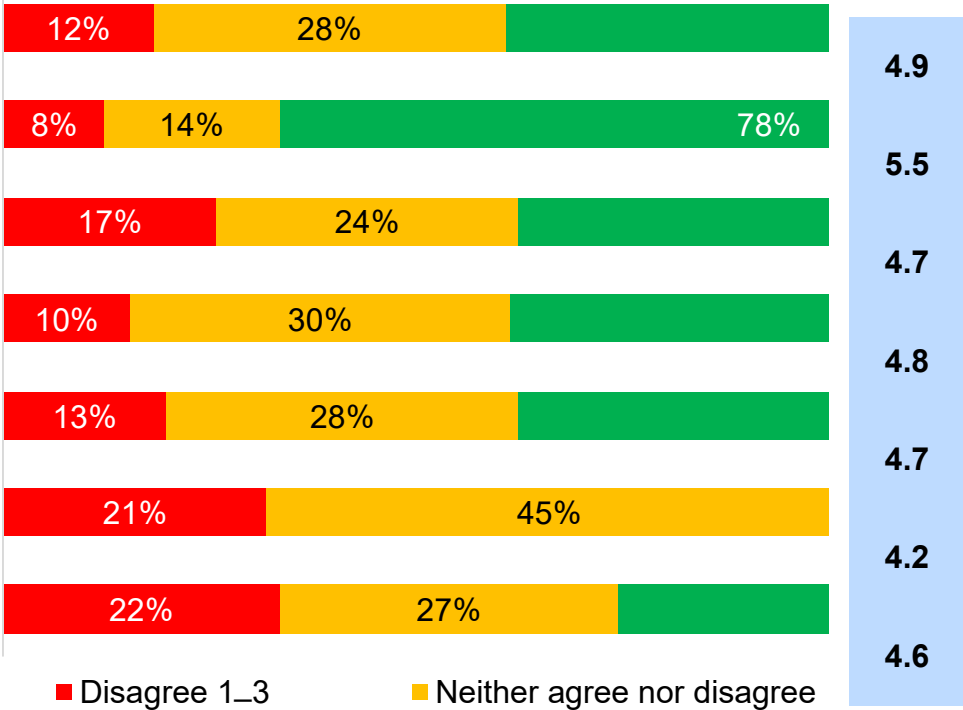
QC6: How much do you agree or disagree with the following statements?

Base: Total Millennials / Early Mid-Lifers (n=429) –

CAREER EXPLORATION



A construction apprenticeship is a reputable qualification



NZ European (n=145)

Similar to Māori Young Adults, Māori Millennials / Mid-Lifers largely agree with all the statements & express uncertainty / disagreement regarding *work-life balance in construction jobs*.

Mean

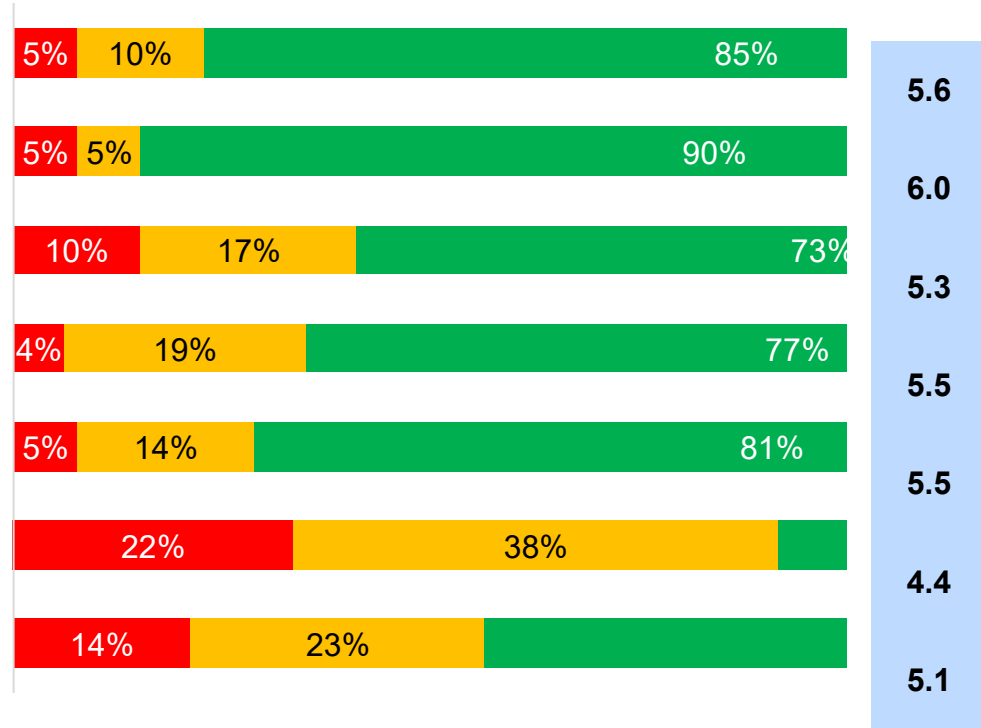
Career beliefs – Māori Millennials / Early Mid-Lifers

QC6: How much do you agree or disagree with the following statements?

Base: Total Young Adults (n=227) –



CAREER EXPLORATION



■ Disagree 1_3 ■ Neither agree nor disagree

A construction apprenticeship is a reputable qualification

An engineering degree is highly respected

Construction offers career advancement

Civil infrastructure provides career progression

QC6: How much do you agree or disagree with the following statements?

Base: Total Millennials / Early Mid-Lifers (n=429) –

CAREER EXPLORATION

Construction careers offer great pay

Construction jobs provide work–life balance

The construction sector offers opportunities for all

Māori (n=77)

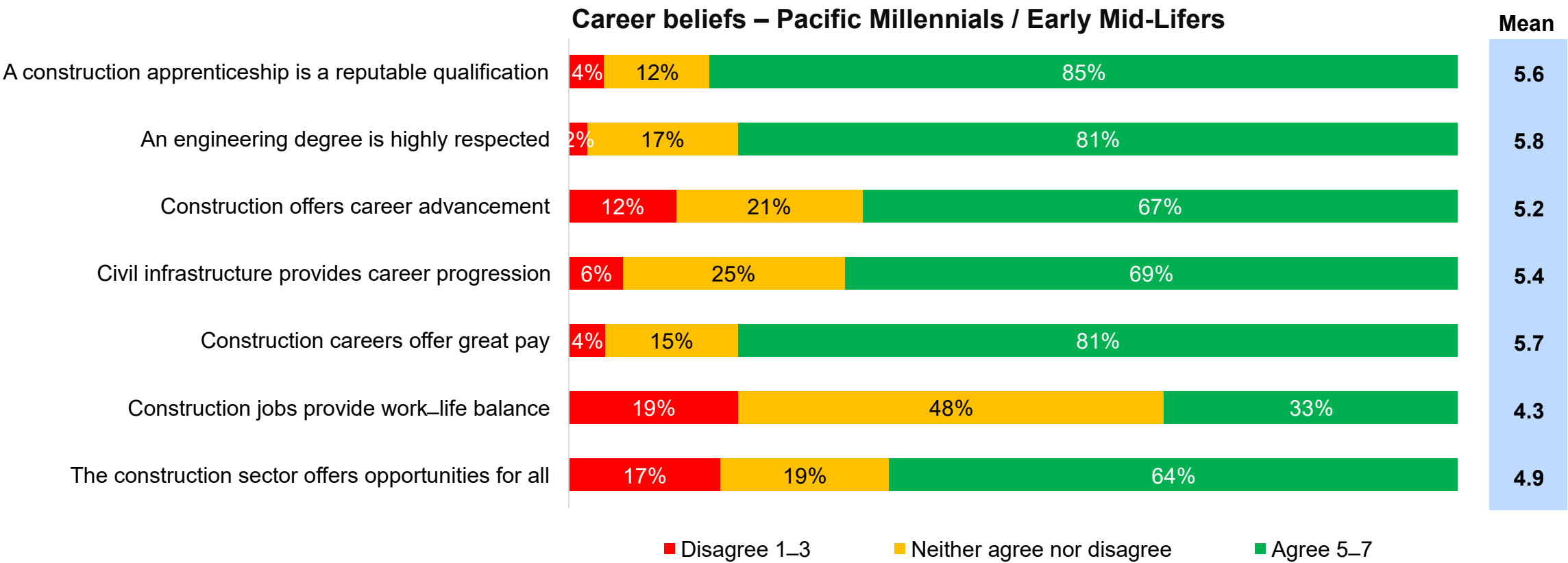
QC6: *How much do you agree or disagree with the following statements?*

Base: *Total Young Adults (n=227) –*

CAREER EXPLORATION



Following the trend, Pacific Millennials / Mid-Lifers predominantly concur with all the statements. Yet, their opinions diverge on the *work–life balance offered by construction jobs*, with 67% disagreeing / remaining undecided about this statement.

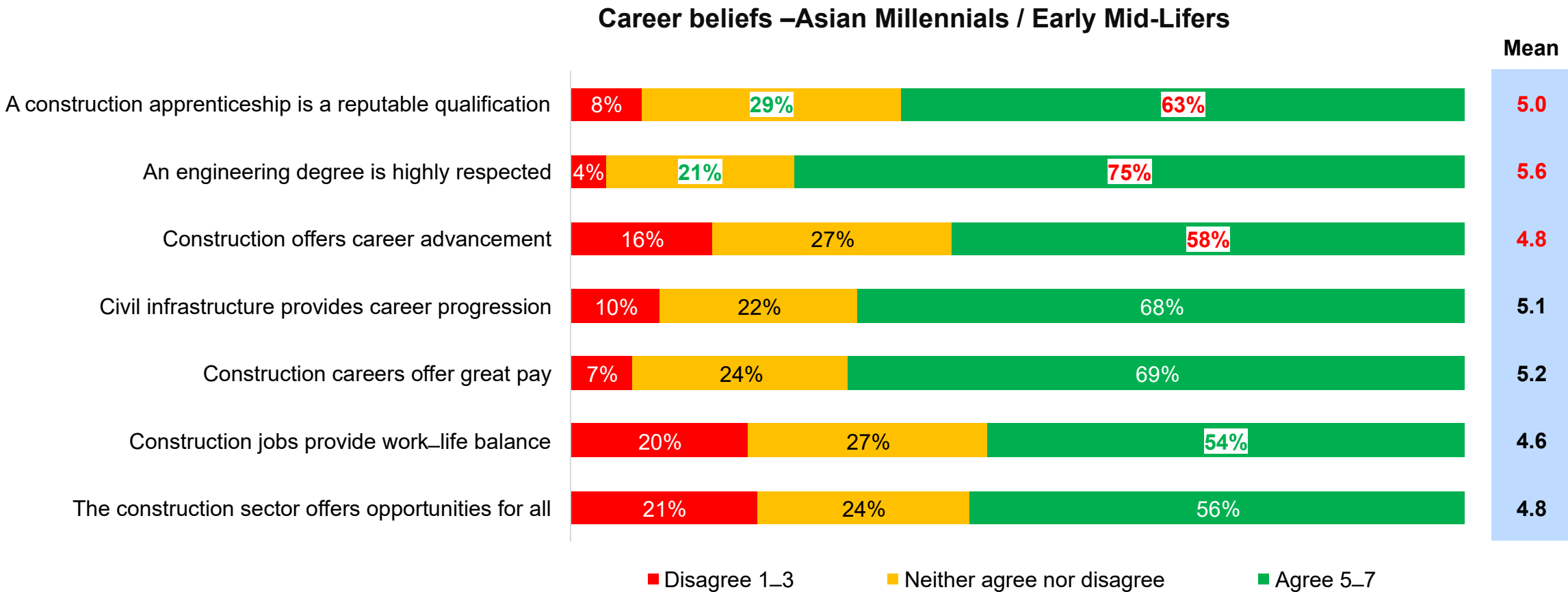


Pacific (n=52)

QC6: How much do you agree or disagree with the following statements?

Base: Total Millennials / Early Mid-Lifers (n=429) –

Unlike other groups, Asian Millennials / Mid-Lifers show a notable tendency to agree that *construction jobs offer work–life balance*. This suggests that perceptions of work–life balance can vary between different groups & are subjective.



Asian (n=98)

QC6: How much do you agree or disagree with the following statements?

Base: Total Millennials / Early Mid-Lifers (n=429) –

CAREER EXPLORATION



Standard significance testing at 95% confidence level applied:
green / **red** indicates a statistically significant **increase** / **decrease** compared to the total

CAREER EXPLORATION

In line with the general trend, NZ European Millennials / Mid-Lifers largely agree with most assertions about the construction industry, except for *work–life balance in construction jobs*, where 63% of them disagree / are uncertain about the statement.

Career beliefs – NZ European Millennials / Early Mid-Lifers

Mean

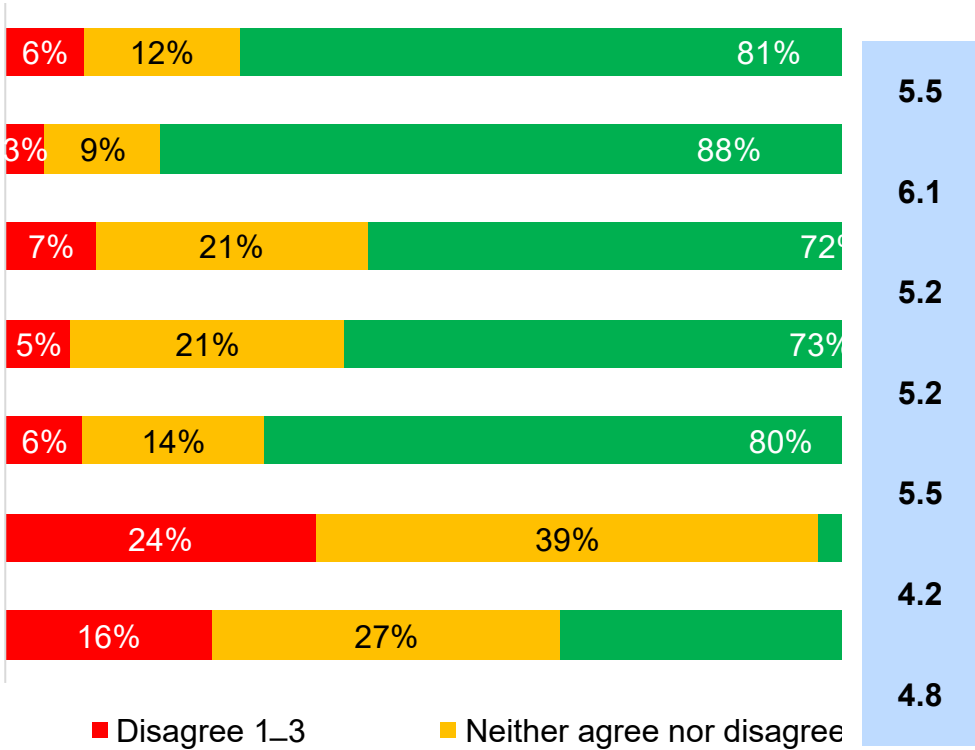
QC6: How much do you agree or disagree with the following statements?

Base: Total Millennials / Early Mid-Lifers (n=429) –





A construction apprenticeship is a reputable qualification



An engineering degree is highly respected

Construction offers career advancement

Civil infrastructure provides career progression

Construction careers offer great pay

QC6: How much do you agree or disagree with the following statements?

Base: Total Millennials / Early Mid-Lifers (n=429) –

CAREER EXPLORATION



Construction jobs provide work–life balance

The construction sector offers opportunities for all

NZ European (n=280)

QC6: How much do you agree or disagree with the following statements?

Base: Total Millennials / Early Mid-Lifers (n=429) –

CAREER EXPLORATION: KEY POINTS

People have very positive impressions of careers in these industries, but the good pay, respect & opportunities provided are thought to come at the expense of a poor work–life balance.

Research into careers in construction and civil infrastructure is relatively limited across all life stages, with a notable increase among Young Adults.

The industries are viewed positively in terms of respect, career opportunities, and pay. However, self-perceptions often limit people's consideration of these sectors due to the high expectations of being smart, fit, and capable.

The primary concern is the work-life balance, especially in construction jobs, as reflected by 67% of Māori Young Adults and echoed by Pacific and NZ Young Adults, and Pacific Millennials/Mid-Lifers.

Therefore, industry promotion should reassure potential entrants that a work-life balance is attainable.

STUDENT STUDIES

7

COURSES OF RELEVANCE:

For skilled construction / civil infrastructure jobs

Across all student age groups & ethnicities, *mathematics / statistics & technology* are consistently seen as the essential subjects to equip Students with the necessary skills for ‘**skilled jobs**’ (trades) in **construction / civil infrastructure**.

	Year 5–10 (n=169)	Year 11–13 (n=107)
Mathematics & Statistics	83%	79%
Technology	63%	53%
Science	56%	58%
Health & Physical Education	41%	34%
English	36%	37%
Business Studies & Economics	32%	28%
The Arts	14%	10%
Social Science	12%	8%
Languages	11%	6%

	Māori (n=61)	Pacific People (n=40)	Asian (n=59)	NZ European (n=180)
Mathematics & Statistics	92%	78%	80%	84%
Technology	62%	57%	52%	63%
Science	56%	50%	61%	59%
Health & Physical Education	44%	45%	32%	43%
English	46%	40%	30%	36%
Business Studies & Economics	34%	30%	29%	33%
The Arts	8%	20%	22%	8%
Social Science	10%	7%	10%	12%
Languages	11%	10%	8%	9%

Don't know	2%	5%
Other	1%	4%

Don't know	3%	5%	0%	3%
Other	3%	5%	0%	1%

QD2: What school subjects do you think are important for a skilled job, e.g. carpenter, plumber or electrician in the construction or civil infrastructure sectors?

BEST SCHOOL YEARS TO START RELEVANT STUDY:

For skilled construction / civil infrastructure jobs

Responses vary across age groups & ethnicities but most believe Year 10 / 11 is the best time to start studying subjects that will lead to skilled jobs in the construction / civil infrastructure sectors. While it is good that an early start is appreciated, this also means that those who leave it until later to consider careers in these industries are likely to think they have left it 'too late'.

	Year 5–10 (n=166)	Year 11–13 (n=102)
Year 10	36%	21%
Year 11 / NCEA Level 1	36%	39%
Year 12 / NCEA Level 2	9%	22%
Year 13 / NCEA Level 3 / University Entrance	8%	15%
Don't know	11%	3%

	Māori (n=59)	Pacific People (n=38)	Asian (n=59)	NZ European (n=174)
Year 10	41%	29%	22%	32%
Year 11 / NCEA Level 1	32%	42%	37%	38%
Year 12 / NCEA Level 2	10%	19%	20%	10%
Year 13 / NCEA Level 3 / University Entrance	7%	5%	14%	11%
Don't know	10%	5%	7%	9%

QD3: In which school year do you think it best to start studying subjects that will help get a skilled job in the construction or civil infrastructure sectors?

COURSES OF RELEVANCE:

For skilled jobs in design / engineering within the construction / civil infrastructure sectors

All demographic groups unanimously regard *mathematics / statistics & science* as pivotal school subjects for acquiring skilled jobs in **design / engineering within the construction / civil infrastructure sector**. Interestingly, *health & physical education* is notably more valued by Māori Students, reflecting the widespread misperception that construction jobs are predominately physical jobs on the tools.

	Year 5–10 (n=169)	Year 11–13 (n=107)
Mathematics & Statistics	80%	78%
Technology	61%	69%
Science	62%	59%
Business Studies & Economics	39%	35%
English	35%	34%
The Arts	23%	21%
Health & Physical Education	22%	17%
Social Science	16%	11%

	Māori (n=61)	Pacific People (n=40)	Asian (n=59)	NZ European (n=180)
Mathematics & Statistics	87%	78%	80%	79%
Technology	67%	75%	61%	70%
Science	61%	55%	64%	64%
Business Studies & Economics	43%	49%	32%	40%
English	44%	40%	27%	35%
The Arts	20%	32%	30%	17%
Health & Physical Education	34%	17%	17%	22%
Social Science	25%	28%	10%	15%

Languages	7%	9%
Don't know	5%	4%
Other	1%	1%

Languages	15%	8%	10%	8%
Don't know	3%	0%	2%	6%
Other	0%	0%	2%	0%

QD4: What school subjects do you think are important for skilled jobs in design or engineering within the construction or civil infrastructure sectors?

STUDENT STUDY:

For skilled jobs in design / engineering within the construction / civil infrastructure sectors

Opinions differ among age groups & ethnicities, yet the majority concurs that Years 10 & 11 are the optimal period to begin studying subjects that will facilitate the pursuit of skilled jobs in design / engineering within the construction / civil infrastructure sectors.

	Year 5–10 (n=169)	Year 11–13 (n=107)
Year 10	33%	24%
Year 11 / NCEA Level 1	35%	28%
Year 12 / NCEA Level 2	8%	26%

	Māori (n=61)	Pacific People (n=40)	Asian (n=59)	NZ European (n=180)
Year 10	36%	23%	24%	32%
Year 11 / NCEA Level 1	33%	42%	29%	30%
Year 12 / NCEA Level 2	13%	22%	24%	12%

Year 13 / NCEA Level 3 / University Entrance	11%	15%
Don't know	14%	7%

Year 13 / NCEA Level 3 / University Entrance	5%	5%	17%	13%
Don't know	13%	7%	7%	13%

QD5: In which school year do you think it best to start studying subjects that will help get skilled jobs in design or engineering within the construction or civil infrastructure sectors?

STUDENT STUDY:

Post-school intentions

For most Students across different years & ethnicities, the preferred option is to *go straight into further education at a tech / university*. Notably, the preference for further education is especially pronounced among Asian Students.

	Year 5–10 (n=166)	Year 11–13 (n=102)
Go straight into further education at a tech / university	53%	53%
Start an apprenticeship	16%	12%
Go straight into the workforce, without any formal education	6%	9%
Take some time off	9%	17%

	Māori (n=61)	Pacific People (n=40)	Asian (n=59)	NZ European (n=180)
Go straight into further education at a tech / university	47%	57%	69%	47%
Start an apprenticeship	20%	15%	12%	14%
Go straight into the workforce, without any formal education	8%	15%	9%	7%
Take some time off	11%	8%	7%	17%

Standard significance testing at 95% confidence level applied:
green/red indicates a statistically significant increase/decrease compared to the total

Start a family / care for family members	0%	1%
Other	2%	2%
Don't know	14%	6%

Start a family / care for family members	0%	0%	0%	0%
Other	3%	0%	0%	2%
Don't know	10%	5%	3%	13%

QD6: Which of the following best describes what you think you might do when you finish school?



STUDENT STUDIES: KEY POINTS

Students tend to have a limited understanding of the broad range of roles available in these sectors, leading to a narrow range of suggested study subjects.

Across all student demographics, subjects like mathematics, statistics, science, and technology are deemed crucial for jobs in the construction and civil infrastructure sectors. Interestingly, 30%-40% of students also consider health & physical education relevant for skilled construction roles, reflecting the perception that some of these roles can be physically demanding.

Business studies & economics are considered necessary for design/engineering jobs within the sector.

These views seem to reflect a limited understanding of the full range of roles in these sectors.

Years 10 and 11 are typically seen as the optimal time to start studying these subjects, suggesting older students may feel it's too late to begin studying for such careers.

BCITO COMPARISONS, NOVEMBER 2023 RESULTS

8



- STUDENTS

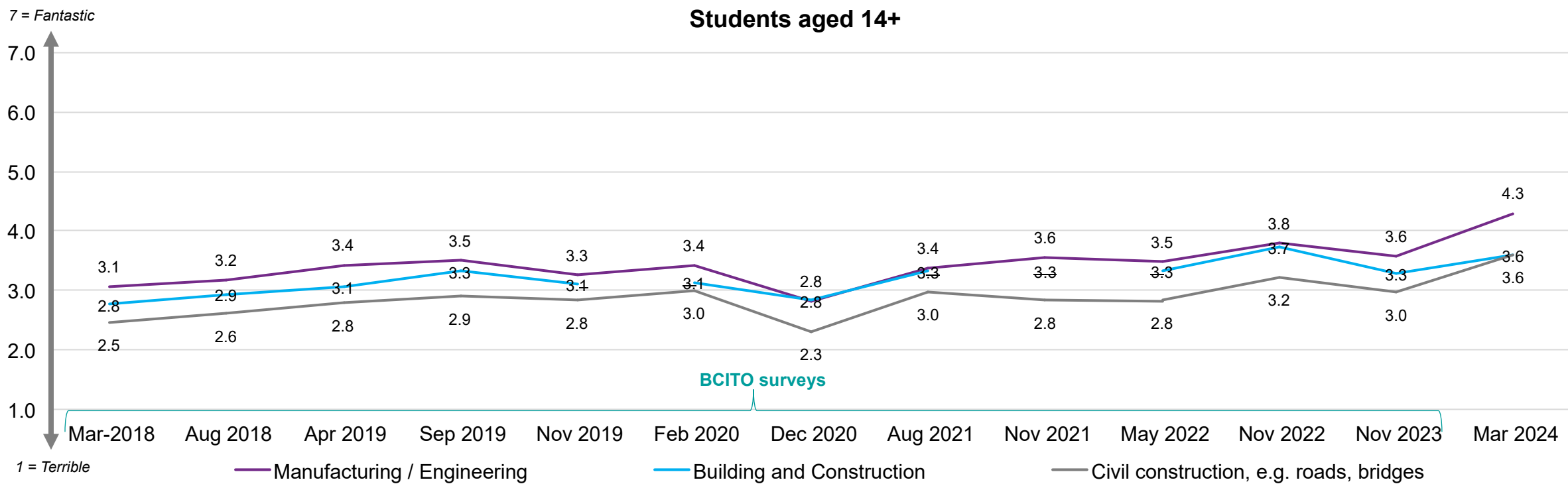
INDUSTRY PERCEPTIONS OVER TIME

The overall trend as recorded in the Ipsos BCITO tracking is of gradual improvement in the attractiveness of these key sectors, with manufacturing / engineering being the best-viewed and civil construction the poorest-rated.

Industry Career Attractiveness

Phrasing in WDC	Engineering jobs, that use science and maths to solve problems and create new things like	Construction: e.g., Houses and Commercial Buildings	Civil Infrastructure, e.g., roads, bridges, airports, pipelines,
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questionnaire: building bridges, designing buildings or electricity transmission creating electrical systems.



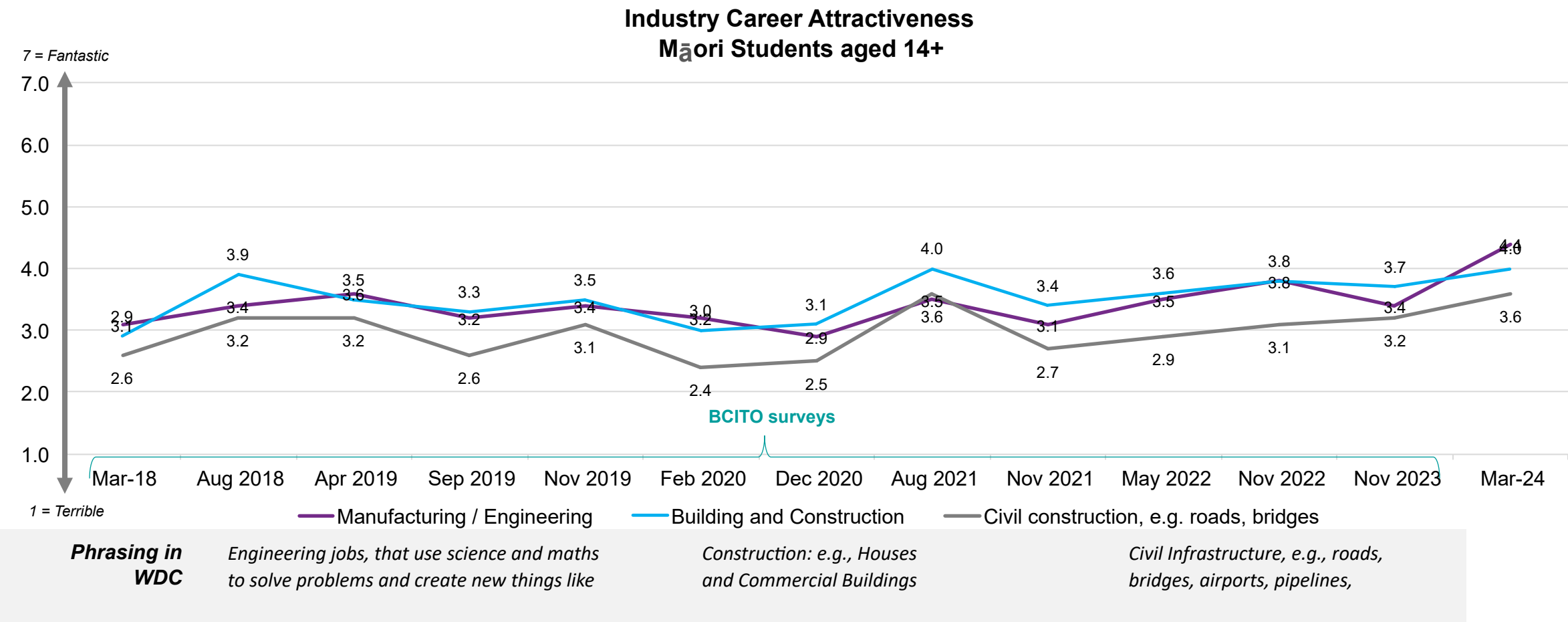
INDUSTRY PERCEPTIONS OVER TIME –

MĀORI STUDENTS

questionnaire: *building bridges, designing buildings or electricity transmission creating electrical systems.*

INDUSTRY PERCEPTIONS OVER TIME –

Māori students are gradually finding key industries like manufacturing, engineering, and construction more appealing over time. Out of these, they like manufacturing and engineering the most, while civil construction is seen as the least attractive option.



INDUSTRY PERCEPTIONS OVER TIME –

PACIFIC STUDENTS

questionnaire: *building bridges, designing buildings or electricity transmission creating electrical systems.*

INDUSTRY PERCEPTIONS OVER TIME –

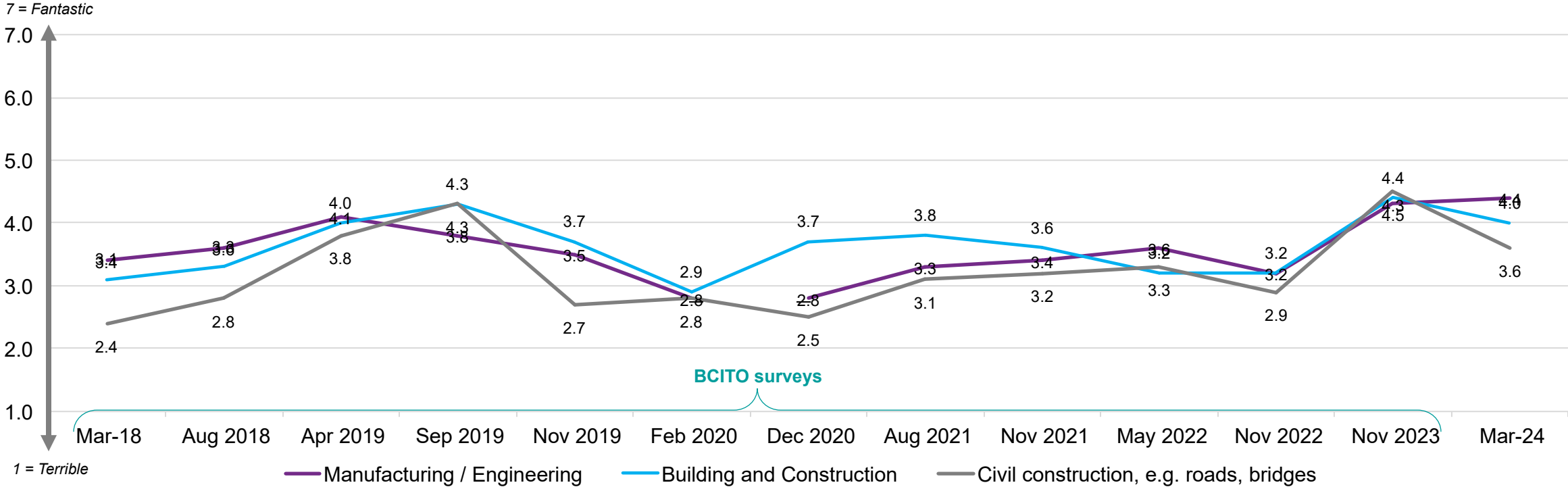
Pacific students' interest in key industries has fluctuated overtime. Although these industries became less appealing by March 2024 in the WDC study, they are close to their highest yet-recorded levels of attraction.

Industry Career Attractiveness Pacific Students aged 14+

Phrasing in WDC	<i>Engineering jobs, that use science and maths to solve problems and create new things like</i>	<i>Construction: e.g., Houses and Commercial Buildings</i>	<i>Civil Infrastructure, e.g., roads, bridges, airports, pipelines,</i>
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questionnaire: *building bridges, designing buildings or electricity transmission creating electrical systems.*

INDUSTRY PERCEPTIONS OVER TIME –



questionnaire: building bridges, designing buildings or electricity transmission creating electrical systems.

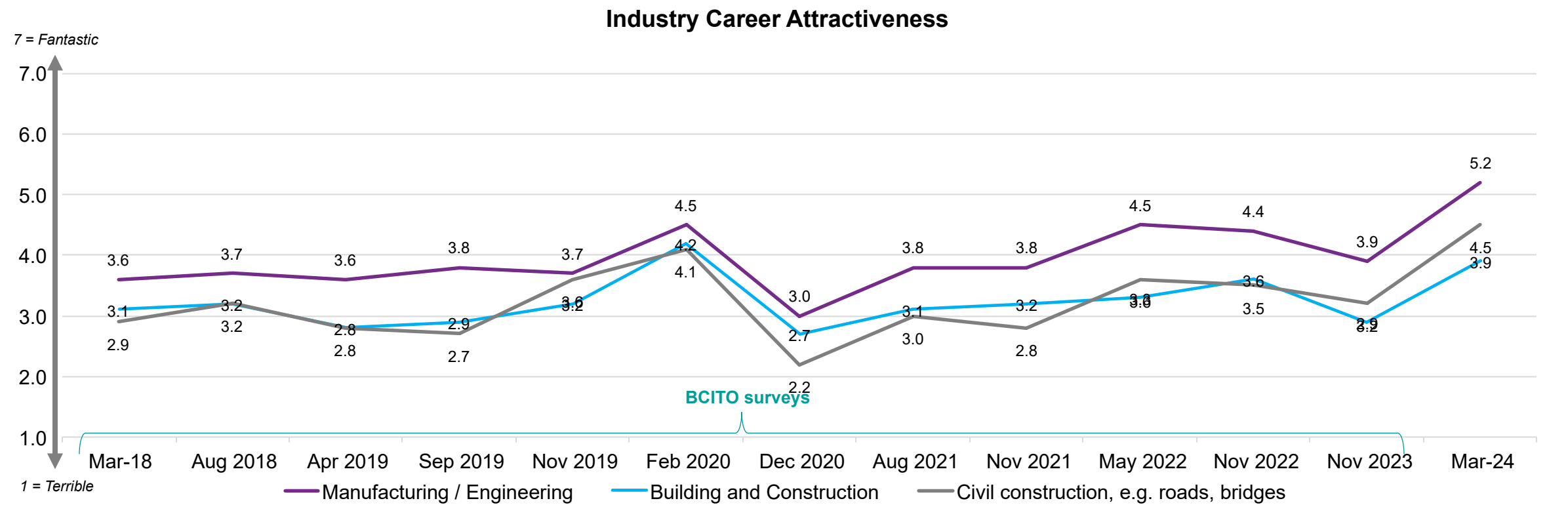
INDUSTRY PERCEPTIONS OVER TIME –

ASIAN STUDENTS

questionnaire: *building bridges, designing buildings or electricity transmission creating electrical systems.*

INDUSTRY PERCEPTIONS OVER TIME –

While Asian students' interest in key industries has exhibited fluctuations over time, the WDC study demonstrates a marked overall improvement in their appeal, with engineering emerging as the most attractive sector



Phrasing in WDC

Engineering jobs, that use science and maths to solve problems and create new things like

Construction: e.g., Houses and Commercial Buildings

Civil Infrastructure, e.g., roads, bridges, airports, pipelines,

Asian Students aged 14+

questionnaire: *building bridges, designing buildings or electricity transmission creating electrical systems.*

INDUSTRY PERCEPTIONS OVER TIME –

NZ EUROPEAN STUDENTS

questionnaire: *building bridges, designing buildings or electricity transmission creating electrical systems.*

INDUSTRY PERCEPTIONS OVER TIME –

NZ European students' perceptions of the three industries remain relatively unchanged over time, although the most recent three waves do indicate a positive improvement.

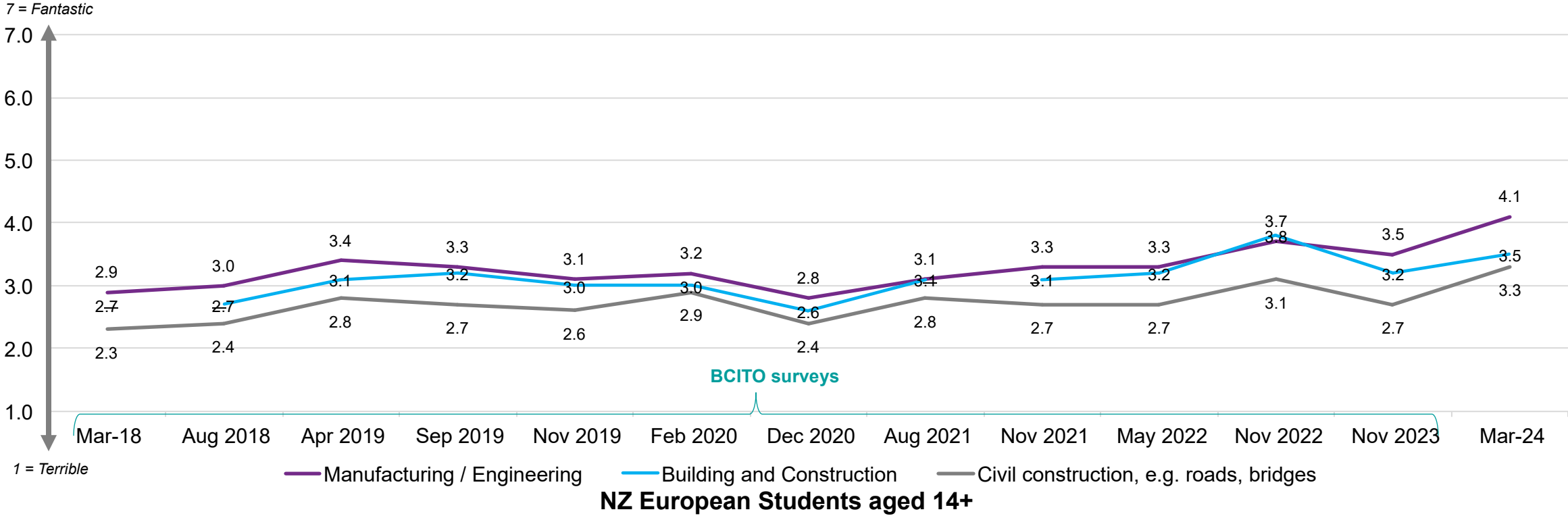
Industry Career Attractiveness

Phrasing in WDC	<i>Engineering jobs, that use science and maths to solve problems and create new things like</i>	<i>Construction: e.g., Houses and Commercial Buildings</i>	<i>Civil Infrastructure, e.g., roads, bridges, airports, pipelines,</i>
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questionnaire: *building bridges, designing buildings or electricity transmission creating electrical systems.*



INDUSTRY PERCEPTIONS OVER TIME –



questionnaire: *building bridges, designing buildings or electricity transmission creating electrical systems.*

INDUSTRY PERCEPTIONS OVER TIME

- YOUNG ADULTS

Phrasing in WDC

to solve problems and create new things like

and Commercial Buildings

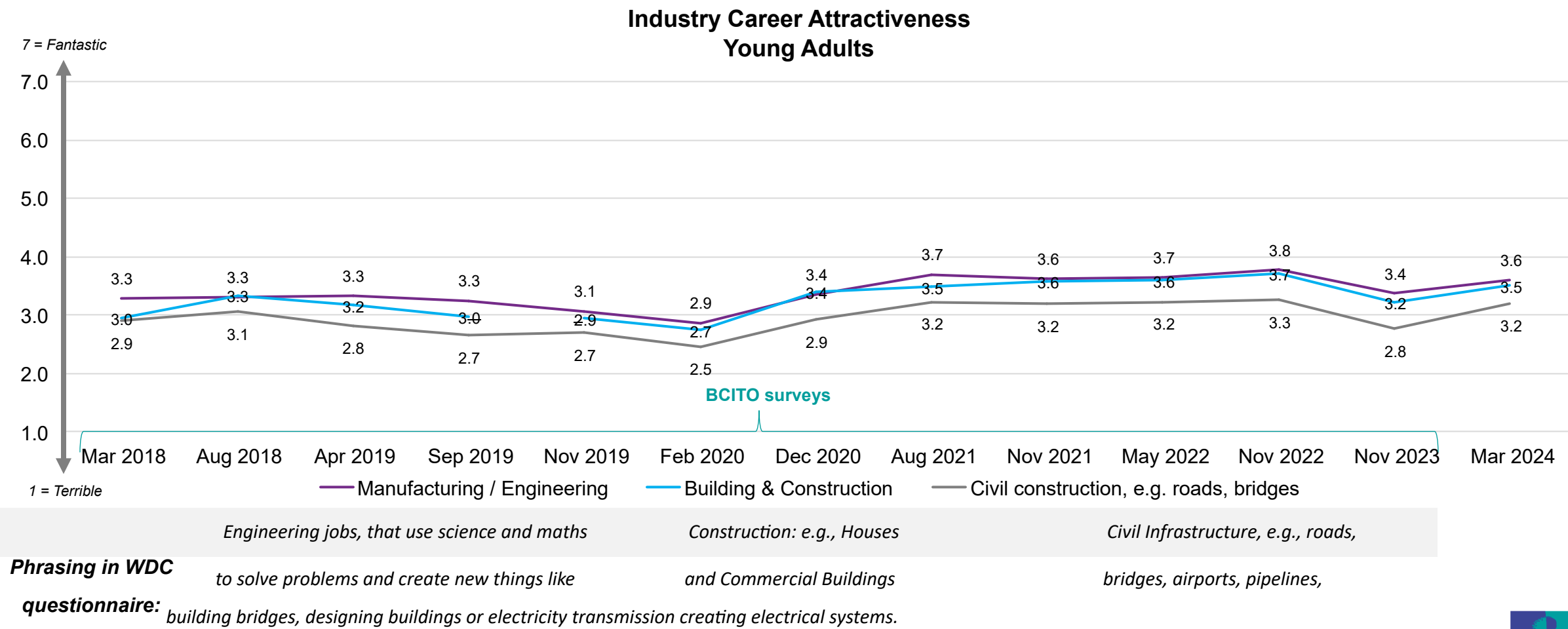
bridges, airports, pipelines,

questionnaire:

building bridges, designing buildings or electricity transmission creating electrical systems.

INDUSTRY PERCEPTIONS OVER TIME –

The overall trend as recorded in the Ipsos BCITO tracking is of gradual improvement in the attractiveness of these key sectors amongst Young Adults, with manufacturing / engineering being the best-viewed and civil construction the poorest-rated.



INDUSTRY PERCEPTIONS OVER TIME –

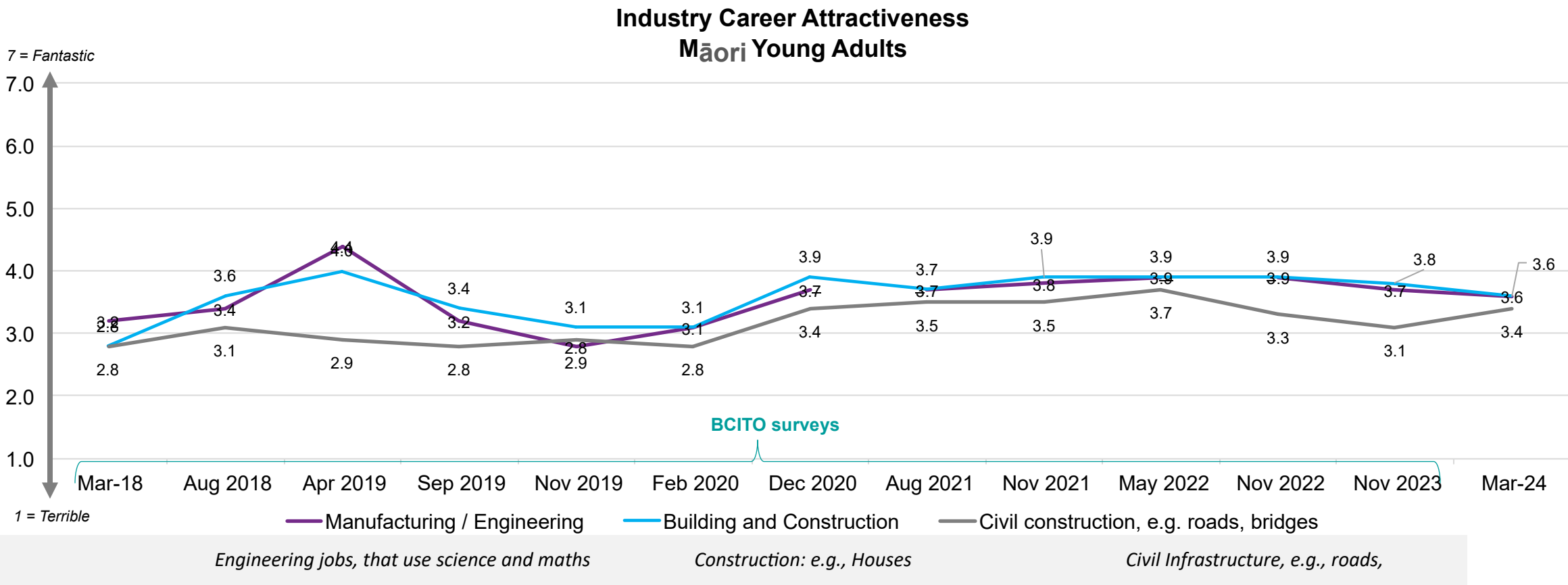
MĀORI YOUNG ADULTS

Phrasing in WDC to solve problems and create new things like and Commercial Buildings
questionnaire: building bridges, designing buildings or electricity transmission creating electrical systems.

bridges, airports, pipelines,

INDUSTRY PERCEPTIONS OVER TIME –

While the attractiveness of the three industries to Māori young adults has fluctuated over time, with some positive trends, their perceptions have not significantly changed since the uplift of December 2020.



Phrasing in WDC questionnaire: to solve problems and create new things like and Commercial Buildings bridges, airports, pipelines,

building bridges, designing buildings or electricity transmission creating electrical systems.



INDUSTRY PERCEPTIONS OVER TIME –

PACIFIC YOUNG ADULTS

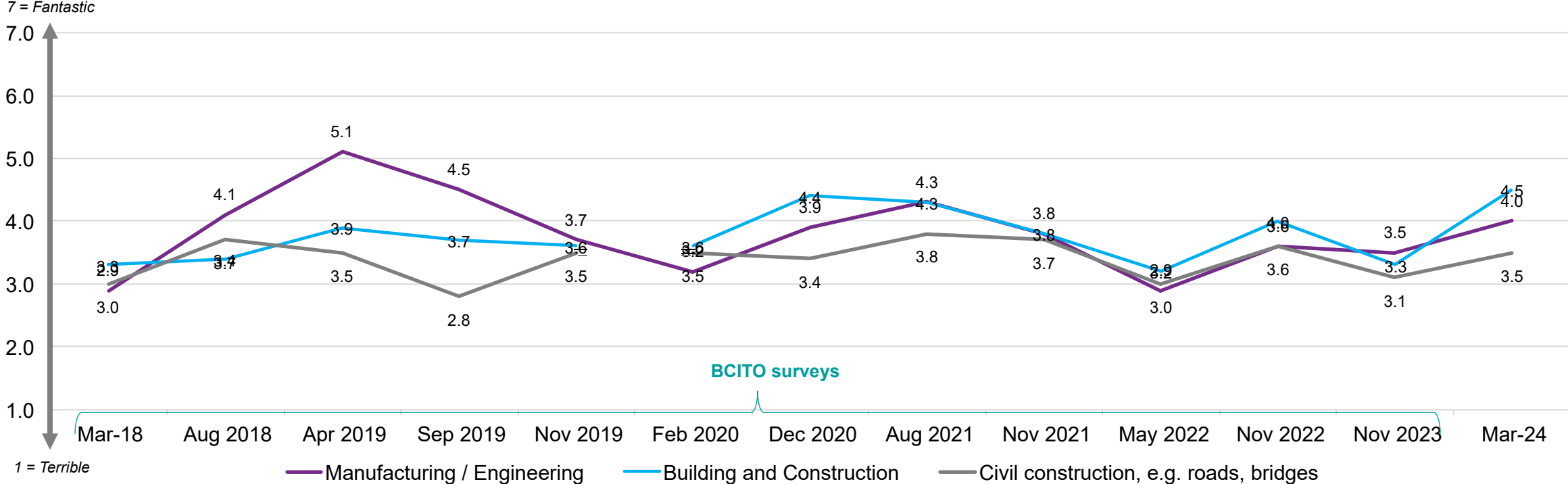
Phrasing in WDC to solve problems and create new things like and Commercial Buildings
questionnaire: building bridges, designing buildings or electricity transmission creating electrical systems.

bridges, airports, pipelines,

INDUSTRY PERCEPTIONS OVER TIME –

The attractiveness of careers in the construction and infrastructure industries varies a lot among Pacific young adults. Although some of this variation will be due to small sample sizes, the overall trend has been positive in recent years, with construction emerging as the most attractive option.

Industry Career Attractiveness



Pacific

Engineering jobs, that use science and maths	Construction: e.g., Houses	Civil Infrastructure, e.g., roads,
to solve problems and create new things like	and Commercial Buildings	bridges, airports, pipelines,
building bridges, designing buildings or electricity transmission	creating electrical systems.	



INDUSTRY PERCEPTIONS OVER TIME –

Young Adults

Phrasing in WDC questionnaire: to solve problems and create new things like _____ and Commercial Buildings _____ bridges, airports, pipelines, building bridges, designing buildings or electricity transmission creating electrical systems.



INDUSTRY PERCEPTIONS OVER TIME –

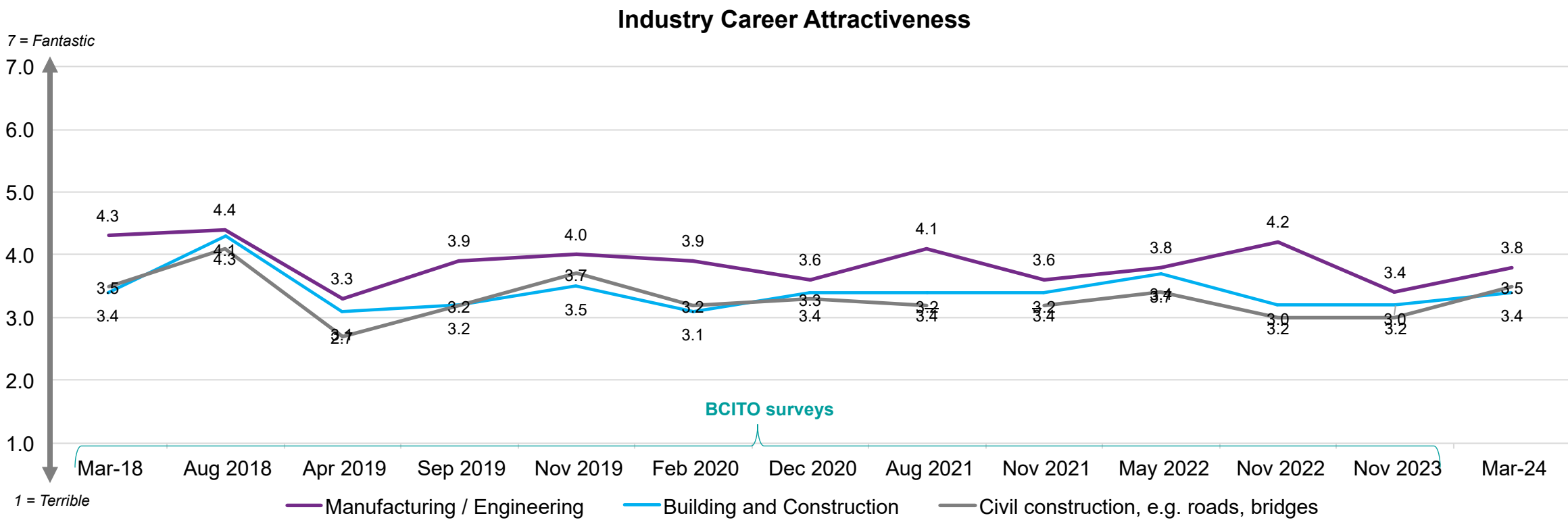
ASIAN YOUNG ADULTS

Phrasing in WDC to solve problems and create new things like and Commercial Buildings
questionnaire: building bridges, designing buildings or electricity transmission creating electrical systems.

bridges, airports, pipelines,

INDUSTRY PERCEPTIONS OVER TIME –

The perceptions of Asian young adults towards the three industries have remained largely consistent over time, with only minor fluctuations. Careers in manufacturing / engineering consistently rate as the most attractive.



	Engineering jobs, that use science and maths	Construction: e.g., Houses	Civil Infrastructure, e.g., roads,	Asian
Phrasing in WDC	to solve problems and create new things like	and Commercial Buildings	bridges, airports, pipelines,	
questionnaire:	building bridges, designing buildings or electricity transmission	creating electrical systems.		



INDUSTRY PERCEPTIONS OVER TIME –

Young Adults

Phrasing in WDC

to solve problems and create new things like

and Commercial Buildings

bridges, airports, pipelines,

questionnaire:

building bridges, designing buildings or electricity transmission creating electrical systems.

INDUSTRY PERCEPTIONS OVER TIME –

NZ EUROPEAN YOUNG ADULTS

Phrasing in WDC to solve problems and create new things like and Commercial Buildings
questionnaire: building bridges, designing buildings or electricity transmission creating electrical systems.

bridges, airports, pipelines,

INDUSTRY PERCEPTIONS OVER TIME –

**Phrasing in WDC
questionnaire:**

*Engineering jobs, that use science and maths
to solve problems and create new things like
building bridges, designing buildings or electricity transmission*

*Construction: e.g.,
and Commercial Buildings*

*Civil Infrastructure, e.g., roads,
bridges, airports, pipelines,*



INDUSTRY PERCEPTIONS OVER TIME –

Houses

NZ
European
young
adults'

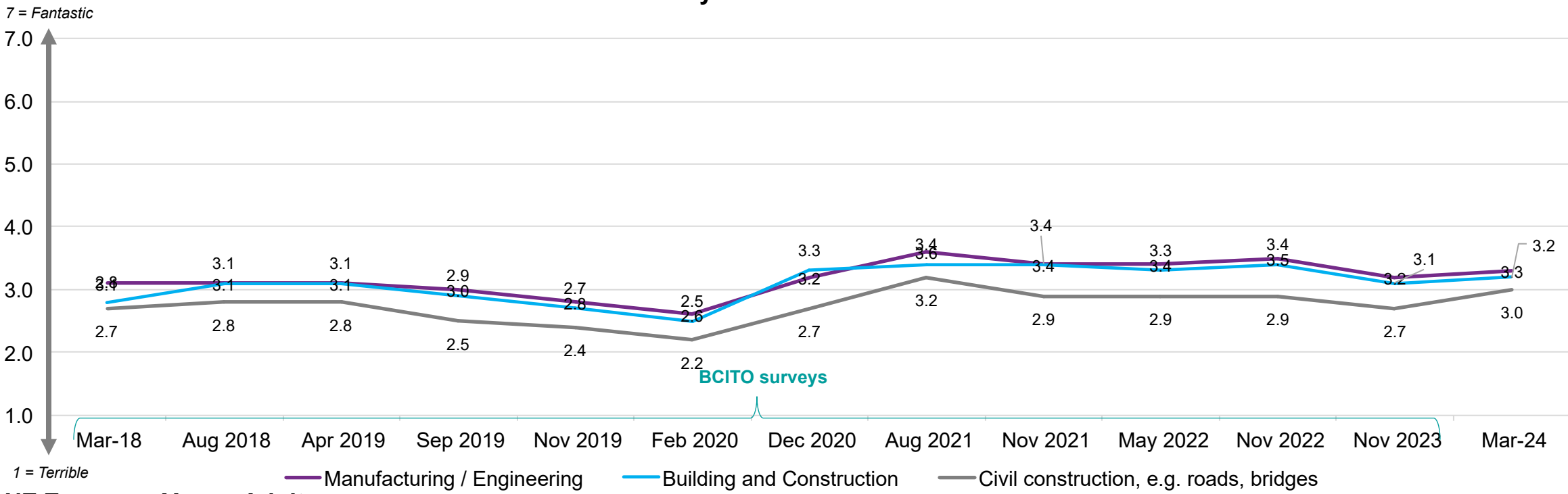
perceptions of the industry show fluctuations with a slight decline in recent years. By March 2024, there were no major changes in how NZ European young adults viewed these industries.

Phrasing in WDC to solve problems and create new things like and Commercial Buildings bridges, airports, pipelines,
questionnaire: building bridges, designing buildings or electricity transmission creating electrical systems.



INDUSTRY PERCEPTIONS OVER TIME –

Industry Career Attractiveness



NZ European Young Adults

Phrasing in WDC

to solve problems and create new things like

and Commercial Buildings

bridges, airports, pipelines,

questionnaire:

building bridges, designing buildings or electricity transmission creating electrical systems.

BUILDING, CONSTRUCTION & CIVIL INFRASTRUCTURE CAREER AWARENESS

Across both surveys, trade jobs dominated Young Adults' suggested careers within these industries. Māori & Pacific Young Adults were more likely to mention *plumber* in their top-3 jobs, while Asian Young Adults often mentioned *architects*.

WDC Survey: Re: "construction and civil infrastructure industries"					
Young Adults	Mean number of jobs listed	Most mentioned	2 nd	3 rd	Don't know
Māori	3.06	Builder (43%)	Electrician (25%)	Plumber (25%)	15%
Pacific Peoples	3.48	Plumber (39%)	Builder (39%)	Electrician (39%)	0%
Asian	3.47	Engineer (45%)	Builder (43%)	Architect (31%)	0%

BCITO Survey: Re: "Building and construction industry"					
Young Adults	Mean number of jobs listed	Most mentioned	2 nd	3 rd	Don't know
Māori	3.75	Builder (58%)	Plumber (42%)	Electrician (38%)	4%
Pacific Peoples	3.27	Builder (49%)	Plumber (40%)	Electrician (28%)	0%
Asian	3.0	Builder (47%)	Engineering (27%)	Architect (26%)	13%

NZ European	3.86	Builder (53%)	Engineer (40%)	Electrician (37%)	12%	NZ European	3.84	Builder (56%)	Plumber (47%)	Electrician (40%)	8%
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QC1: Please write down all the jobs, trades and professions you can think of that can be found in the construction and civil infrastructure industries?
QP4: Can you please write down all the jobs or trades that you can think of, which would be included in the building and construction industry?

Base: Total Young Adults (n=221) – Māori (n=40), Pacific (n=31), Asian (n=50), NZ European (n=141) **Base:** Total Young Adults (n=265) – Māori (n=69), Pacific (n=24*), Asian (n=41), NZ European (n=183). ***Caution:** Low base size (n<30).

WDC Young Adults: 18–25 years
 BCITO Young Adults: 19–25 years

CAREER PERCEPTIONS OVER TIME

Comparable Questions

WDC Survey	BCITO Survey
An apprenticeship in a construction or civil infrastructure trade would be a credible and respected qualification.	An apprenticeship in a building and construction trade would be a credible and respected qualification.
The construction sector can offer good opportunities for career progression.	The building and construction sector can offer good opportunities for career progression.

CAREER PERCEPTIONS OVER TIME –

<i>Careers in construction can offer good pay and financial opportunities.</i>	<i>Careers in building and construction can offer good pay and financial opportunities.</i>
<i>Jobs in construction and civil infrastructure can offer good worklife balance.</i>	<i>Jobs in building and construction can offer good work-life balance.</i>
<i>The construction and infrastructure sector can offer good career opportunities for anyone, no matter what gender, age or ethnicity.</i>	<i>The building and construction sector can offer good career opportunities for anyone, no matter what gender, age or ethnicity.</i>

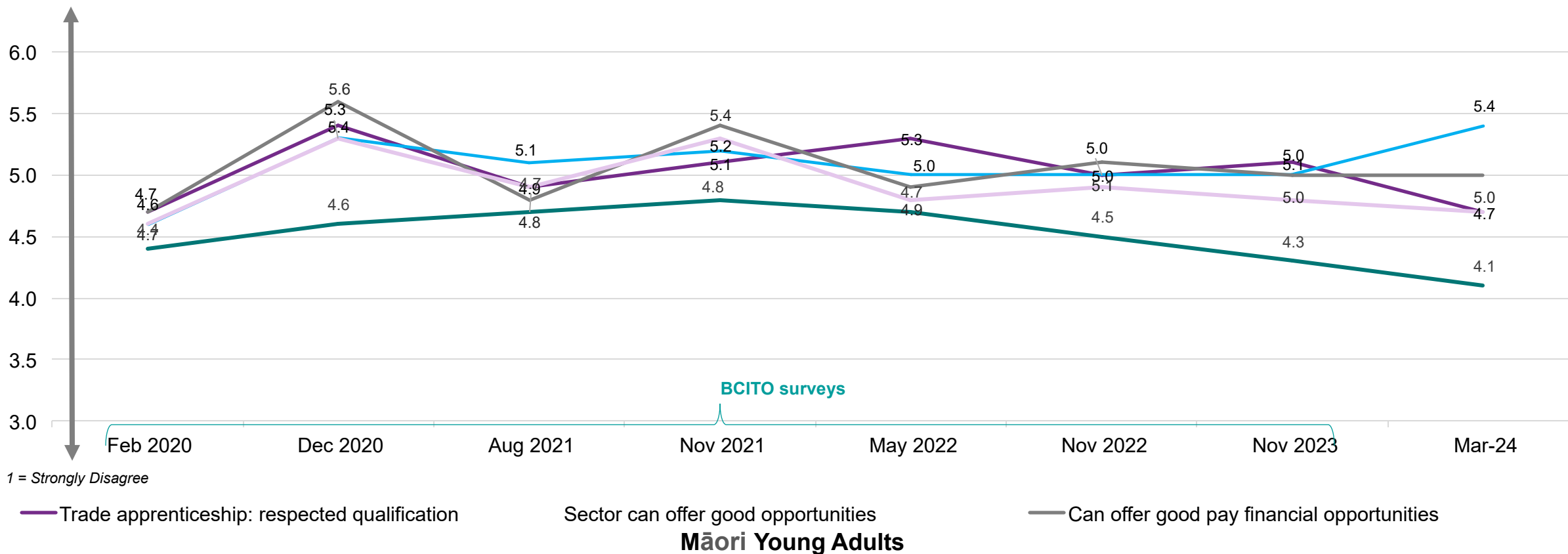
MĀORI YOUNG ADULTS

Māori young adults consistently think jobs in building and construction have a lack of *work-life balance*, this perception remains in March 2024 (WDC study).

7 = Strongly Agree

Industry Career Perceptions





CAREER PERCEPTIONS OVER TIME –

PACIFIC YOUNG ADULTS

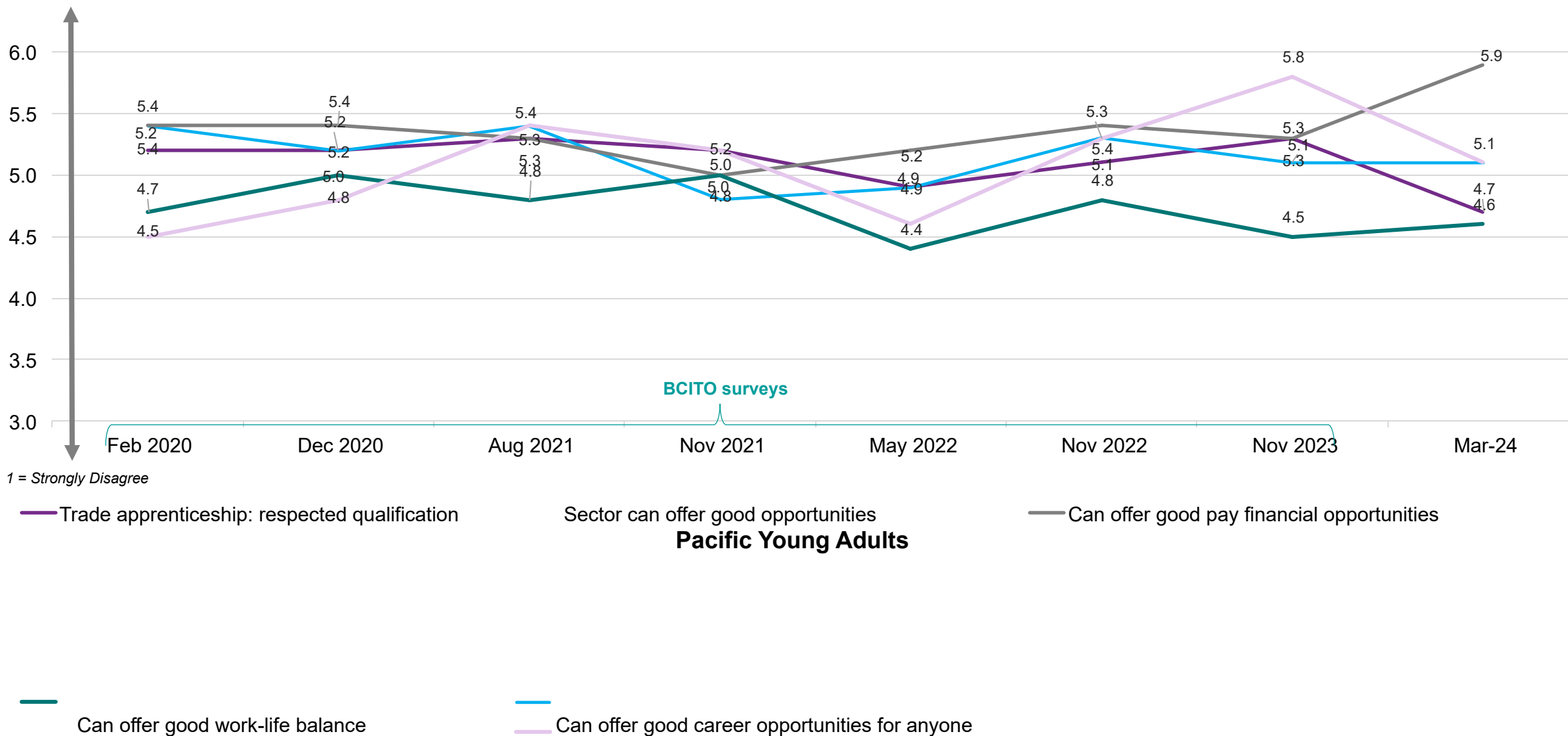
Pacific young adults' perception of pay within the construction industry has steadily improved over time, reaching a record high in March 2024.

7 = Strongly Agree

Industry Career Perceptions

- Can offer good work-life balance
- Can offer good career opportunities for anyone





CAREER PERCEPTIONS OVER TIME –

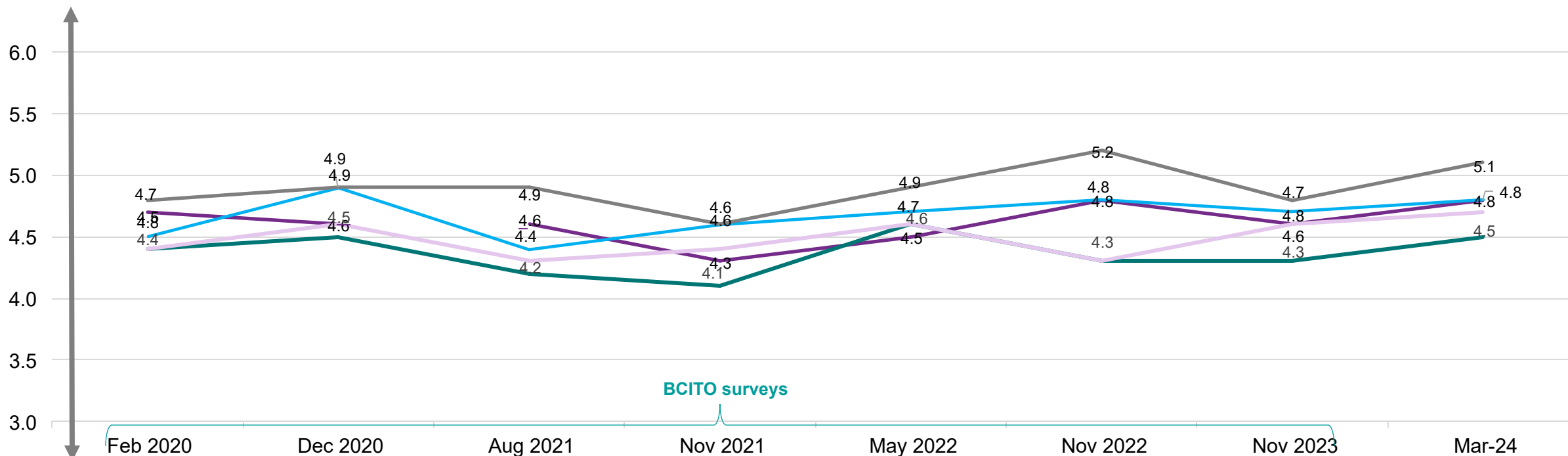
ASIAN YOUNG ADULTS

Asian young adults consistently perceive the building and construction industry as offering good pay, which remains their most positive view of the sector. Conversely, their perception of work-life balance in the industry has remained consistently lower.

7 = Strongly Agree

Industry Career Perceptions





1 = Strongly Disagree

— Trade apprenticeship: respected qualification

Sector can offer good opportunities
Asian Young Adults

— Can offer good pay financial opportunities

— Can offer good work-life balance

— Can offer good career opportunities for anyone

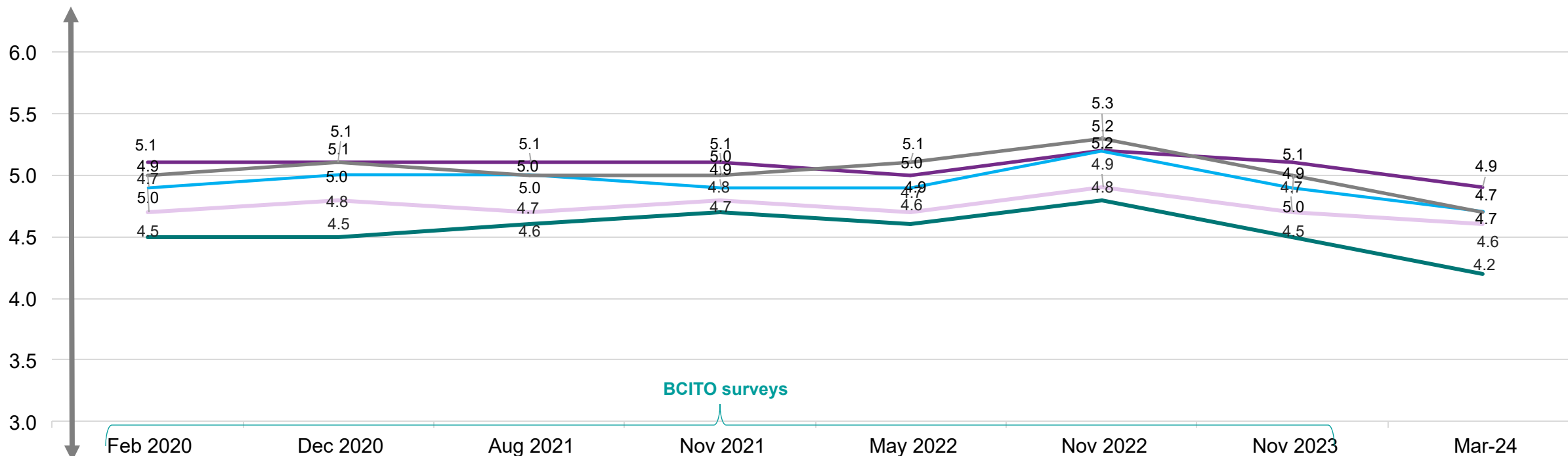
CAREER PERCEPTIONS OVER TIME – INDUSTRY PERCEPTIONS OVER TIME – NZ EUROPEAN YOUNG ADULTS

Like young adults of other ethnicities, Pacific young adults consistently perceive a lack of work-life balance in building and construction jobs. This perception further declined in March 2024.

7 = Strongly Agree

Industry Career Perceptions





1 = Strongly Disagree

— Trade apprenticeship: respected qualification

Sector can offer good opportunities
NZ European Young Adults

— Can offer good pay financial opportunities

— Can offer good work-life balance

— Can offer good career opportunities for anyone

BCITO COMPARISONS OVER TIME: KEY POINTS

There is a general trend of gradual improvement in how these industries are viewed, with manufacturing / engineering consistently being the most attractive and civil construction the least. However, this positive trend varies across different demographics.

Amongst Students there are some clear ethnic differences in how attractive careers in each industry are perceived to be.

- ▣ Māori show increasing interest in careers in all three industries, particularly manufacturing / engineering.
- ▣ In contrast, Asian students have shown the largest improvements in terms of engineering careers and Pacific students are more attracted to construction careers.
- ▣ NZ European students' attitudes have not changed much although a slight positive trend is discernable.

Amongst Young Adults there has been more variation over time, with more recent surveys generally showing positive changes:

- ▣ Māori Young Adults' attitudes have been stable since a positive uplift in December 2020; Pacific Young Adults show a positive overall trend, and Asian Young Adults have maintained already positive attitudes, favouring manufacturing/engineering.
- ▣ The one exception to these generally positive changes has been the opinions of NZ European Young Adults, who have exhibited a slight decline in their perceived attractiveness of careers in these sectors.

The most consistent negative theme to address is the perception that construction careers have poor work-life balance.

THANK YOU

JONATHAN DODD

Director

jonathan.dodd@ipsos.com

ALICIA MORGAN

Senior Research Executive

alicia.morgan@ipsos.com

GAME CHANGERS

