

**Addressing challenges in New Zealand's construction and
infrastructure apprenticeship support system: Insights from policy
analysis**

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The number of learners enrolling in construction and infrastructure apprenticeships in New Zealand has not kept up with demand. At the same time, completion rates are low by international standards. Considering these challenges, the Construction and Infrastructure Centre of Vocational Excellence (ConCOVE) commissioned a study into what improvements are required, with a focus on public policy settings and how government funds apprenticeship support programs as a key intervention to ensure workforce quantity and quality. A mixed-methods research approach was used, including policy document review, data analysis, literature review, international comparison, stakeholder interviews with 38 representatives from government agencies, training organizations, and education providers, and interviews and focus groups with 8 apprentices and 6 employers. Triangulating data sources, eight critical areas requiring intervention were identified: overlapping policy initiatives prioritizing participation over completion, persistent financial barriers for apprentices, inconsistent pastoral care delivery or support, variable employer training quality, misaligned economic and financial incentives, fragmented apprenticeship information systems and resources, poor role clarity between government, employers, and training providers, and unclear national strategic direction of apprenticeships. Tied to these findings, eight recommendations are proposed that aim to improve apprenticeship system efficiency and ensure the system better delivers for employers, learners, and national labour productivity.

Keywords: apprenticeships; vocational education and training; construction industry; policy coherence; completion rates; workforce development; pastoral care; employer capability

Introduction

New Zealand's vocational education and training (VET) system has undergone significant reform with new arrangements to be in place by January 2026. The new arrangements include the establishment of Industry Skills Boards (ISBs) to manage

standards-setting and associated functions, and the re-establishment of 10 regionally-based polytechnics (Office of the Minister for Vocational Education, 2025b, 2025a). Under these arrangements, VET providers including industry, private training establishments, polytechnics, and wānanga (a tertiary institution focussed on providing education informed by Māori—Indigenous people of New Zealand—principles) will manage all aspects of apprenticeships or traineeships. ISBs will be industry-led bodies, replacing Workforce Development Councils (WDCs) and Centres of Vocational Excellence (CoVEs).

The construction and infrastructure sector represents a critical component of New Zealand's economy, producing over 6% of national gross domestic product and serving as the country's fifth largest industry (MBIE, 2024). However, the sector faces a significant workforce challenge, with industry analysis suggesting approximately a 50% shortfall in the workers required to deliver on projected building and civil infrastructure pipelines (Waihanga Ara Rau, 2024b). This shortfall occurs within a context where the sector has experienced volatile demand patterns and increasing reliance on migrant workers, with the proportion of construction workers holding work visas growing from 2.5% in 2013 to 5.8% in 2023 (MBIE, 2024).

New Zealand Apprenticeships (Table 1) are formal qualification-gaining work-based training programs, over approximately four years, leading to careers in a range of vocations. Apprenticeships are open to anyone aged 16 years and over. In contrast, training or traineeships are usually smaller programs with few credits, taken over varying time periods. Training usually does not involve job placement, as learners are usually already employed before beginning training (Mahoney, 2010).

Apprenticeships serve as a primary pathway for developing skilled workers in construction and infrastructure trades. While apprenticeship enrollments have grown

substantially over the past decade—more than doubling between 2014 and 2023 and reaching a peak in 2022 (Tertiary Education Commission, 2024)—this growth masks persistent quality concerns. Completion rates for construction and infrastructure apprentices range between 39% and 58%, substantially below international comparators such as Germany, Ireland, Scotland, and the Netherlands, where rates range from 65% to 75% (DUO, 2024b, 2024a; McMahon et al., 2023; National Apprenticeship Office, 2024; Skills Development Scotland, 2024; Statistisches Bundesamt DE Statis, 2024). These completion gaps represent not only individual setbacks for learners but also systemic inefficiencies that undermine workforce development efforts and economic productivity.

As with all tertiary learners, apprentices are eligible for a variety of supports (either directly, or indirectly through their employer) to help them enter and complete their training. The apprenticeship support landscape in New Zealand has evolved over time, particularly following the COVID-19 pandemic. The Apprenticeship Support Programme, established in 2020, introduced the Apprenticeship Boost Initiative (ABI), expanded Mana in Mahi – Strength in Work (while not specifically designed for Māori, many of the generic features of the program have benefited Māori, and Māori were 36% of the Mana in Mahi participant population (Allen + Clarke, 2025)), funded Group Training Schemes, and implemented the Regional Apprenticeships Initiative. These programs joined seven other initiatives supporting apprenticeships, including Fees-Free, Cadetships (funded and delivered by Te Puni Kōkiri Ministry of Māori Development), Pae Aronui (funded and delivered by Te Puni Kōkiri Ministry of Māori Development), He Poutama Rangatahi – Youth Employment Pathways, Māori and Pasifika Trades Training (targets Māori and Pacific peoples learners), Māori Trades Training Fund (designed to support Māori organizations and employers), and Skills for Industry. While

well intentioned, this proliferation of programs created a complex system where roles, responsibilities, and strategic objectives remain unclear to industry stakeholders and to learners, education providers, and employers – the core of the apprenticeship tripartite arrangement.

Findings are presented from research using a systems change and policy coherence lens examining whether and to what extent government-funded apprenticeship support programs work effectively for employers, learning providers, and workers in New Zealand's construction and infrastructure sectors. The distinction is made between funding for apprenticeship delivery (the core educational component) and funding supporting learners, employers, and training providers to facilitate entry, progression, and completion. This distinction enabled focused analysis on support mechanisms rather than fundamental program delivery structures. The research addresses a critical knowledge gap regarding how multiple policy interventions function as a coherent system and identifies opportunities for improvement that could enhance both the quantity and quality of the skilled workforce.

Method

Analytical framework

A mixed-methods approach was designed to provide comprehensive understanding of the apprenticeship support system from multiple stakeholder perspectives. The research framework integrated two complementary analytical lenses: systems change theory (Kania et al., 2018) and the International Labour Organisation's (2021) participatory assessment of policy coherence.

The systems change approach recognizes that structural transformation requires understanding not only formal policies and funding mechanisms but also relational

dynamics and underlying assumptions that shape stakeholder behavior (Kania et al., 2018). The policy coherence framework facilitated analysis of governance arrangements, policy accountability, coordination mechanisms, design processes, implementation effectiveness, and monitoring and evaluation systems across multiple initiatives and government agencies.

This combined framework enabled examination of both explicit dynamics (policies, practices, and resource flows) and implicit factors (relationships, power dynamics, and mental models) that influence system performance.

Data collection methods

Data collection occurred through six primary methods between July and August 2024.

Document review

The research team examined Cabinet papers (Government decision papers), briefing documents, evaluation reports, and key decision-making documents related to apprenticeship design and implementation in New Zealand. This included analysis of 11 apprenticeship programs within the study scope.

Literature review

Comprehensive review of evaluation and performance reports for programs including Mana in Mahi (Allen + Clarke, 2019, 2020), Regional Apprenticeships Initiative (BERL, 2023), Cadetships (Te Puni Kōkiri, 2019; TPK, 2024b), Pae Aronui (Aiko, 2022; Grootveld, 2020; TPK, 2020, 2024a), He Poutama Rangatahi (Spee et al., 2024), and Māori and Pasifika Trades Training (MartinJenkins, 2017). A wider review of literature was also conducted to synthesize evidence on effective apprenticeship support

approaches in New Zealand.

International comparison

High-level review of apprenticeship support policies in seven comparator jurisdictions: Australia, Canada, England, Ireland, Scotland, Germany, and the Netherlands. This analysis focused on funding mechanisms, employer support, apprentice financial assistance, completion rates, and governance structures.

Stakeholder interviews and participants

The research team conducted one-on-one and group interviews with 38 representatives from government agencies (Ministry of Business, Innovation and Employment; Ministry of Education; Ministry of Social Development; Te Puni Kōkiri; Tertiary Education Commission; Kāinga Ora), workforce development and industry organizations (Waihanga Ara Rau, ConCOVE, New Zealand Construction Industry Council), training providers (Building and Construction Industry Training Organisation, Vertical Horizons, Masterlink, Master Plumbers Apprenticeship Representative Group, Māori and Pacific Trades Training, Industry Connection for Excellence), and Ministry of Social Development regional labor market managers (nine participants in a group meeting).

Stakeholder interviews were supported by semi-structured interview schedules tailored to the type of organization the interviewee represented. Questions focused on aspects of the International Labour Organization's policy coherence framework (ILO, 2021) such as policy and program implementation, policy monitoring and evaluation, policy system and governance, and policy design.

Apprentice and employer interviews and participants

One-on-one online, phone, or in-person interviews and focus groups were held with eight current or recently completed apprentices and six employers actively hosting construction and infrastructure apprentices. Apprentice participants represented diverse demographics: 5 European, 2 Māori, 1 Pacific peoples, 1 Latin American (participants could elect more than one ethnicity); 6 male, 2 female; ages ranging from 20-39 years. Employer participants represented businesses from 1-100+ employees across residential, non-residential, heavy civil engineering, and construction services sub-sectors. Geographic distribution spanned Auckland, Waikato, Taranaki, Gisborne, Wellington, Canterbury, and Otago regions.

Participants were recruited via advertising on social media, networks of the Project Working Group, word-of-mouth, and available networks. Interviewees were provided with a Participant Information Sheet so that informed consent could be provided. Apprentices were provided with a grocery voucher as an appreciation of their time.

The focus group and interviews were supported by run sheets and semi-structured interview schedules. Questions focused on decisions to become an apprentice or host, options explored, how the apprenticeship was established, what worked well and what did not work well, and ability to complete the apprenticeship (costs, travel, materials, time, health, family, etc.).

Data and financial analysis

Analysis of apprenticeship data from Ministry of Education and Tertiary Education Commission, and financial and funding data from Ministry of Education, Tertiary Education Commission, Ministry of Social Development, Te Puni Kōkiri, and Ministry

of Business, Innovation and Employment.

Procedures

Qualitative data from interviews and focus groups underwent thematic analysis to identify patterns, challenges, and opportunities within the apprenticeship system.

Quantitative data informed understanding of enrollment trends, completion rates, funding allocations, and demographic patterns. The analytical framework enabled systematic assessment of policy governance, system connections, design processes, implementation effectiveness, and monitoring mechanisms across the 11 programs examined.

Ethical considerations

Ethical approval from the Unitec Research Ethics Committee was obtained (Reference 2024-1005_ConCove). Participants provided informed consent, and apprentices received NZ\$30-50 vouchers acknowledging their time contribution. Audio visual recordings and transcripts were anonymized, and apprentices and employers were provided the opportunity to review their transcripts.

Results

Overlapping initiatives prioritizing participation over completion

Completion rates and international comparisons

Analysis of completion data reveals persistent challenges. Five-year completion rates for construction and infrastructure apprentices show significant variation by field of study: building apprentices achieved 43% completion, civil engineering 55%, and

electrical engineering 49% for the 2019 cohort (Ministry of Education, 2024a). These rates have remained relatively stable over time despite enrollment growth, although electrical engineering showed the largest change, declining from a 2014 peak of 68% to 49% by 2019.

Demographic disparities in completion rates indicate systematic inequities requiring attention. While completion rates for male (47%) and female (46%) apprentices show parity, substantial differences emerge by ethnicity: European 48%, Māori 36%, Pacific peoples 36%, Asian 56%, Middle Eastern, Latin American, and African 52%, and Others 57% (Ministry of Education, 2024a). Completion rates also increase with apprentice age, suggesting mature learners benefit from life experience and established personal (and financial) circumstances.

New Zealand's experience is not unique. While there are well-recognized difficulties in comparing completion rates and apprenticeship indicators internationally (Kis, 2020; McMahon et al., 2023), comparisons with some jurisdictions positions New Zealand's performance as concerning. Table 2 presents completion rates across comparator jurisdictions, demonstrating New Zealand's rates fall significantly below leading systems. Germany, Scotland, Ireland, and the Netherlands achieve completion rates between 65-75%, representing a performance gap of 15-30 percentage points compared to New Zealand's construction and infrastructure apprenticeships.

Construction and infrastructure apprenticeship funding architecture

The apprenticeship support system encompasses substantial public investment with policy and funding responsibility, and program administration and fund distribution spread across multiple government agencies. Program delivery and funding is distributed to education providers, group training organizations, and community

providers, employers, and learners. The complexity of this architecture creates coordination challenges and potential inefficiencies.

It was difficult to calculate funding appropriations specifically for apprenticeships and for the construction and infrastructure sector. The data was often not available at this level, particularly for initiatives that provided broader support or were targeted at cohorts that were not defined by industry sector. At the core, there were three initiatives supporting construction and infrastructure apprenticeships totaling NZ\$218.76 million in 2023/24:

- Apprenticeship training delivery: NZ\$148.2 million
- Apprenticeship Boost Initiative: NZ\$52.9 million
- Fees-free: NZ\$17.6 million

There were eight other initiatives that did not specifically fund apprenticeships or the construction and infrastructure sector in the 2023/24 financial year:¹

- He Poutama Rangatahi: \$41.6 million for construction and infrastructure sector but not exclusive to apprenticeships
- Māori Trades and Training Fund: NZ\$30.2 million for construction and infrastructure sector but not exclusive to apprenticeships
- Skills for Industry: NZ\$24.8 million for construction and infrastructure sector but not exclusive to apprenticeships

¹ \$NZ16.0 million was spent on Group Training Schemes (GTS) in 2020/21. GTS closed in 2022 and is not included in the list of 11 initiatives.

- Mana in Mahi: NZ\$12.7 million for construction and infrastructure sector but not exclusive to apprenticeships
- Cadetships: NZ\$12.2 million for all sectors and not exclusive to apprenticeships
- Regional Apprenticeships Initiative: NZ\$3.9 million for all sectors. Closed for applications end of 2023/24.
- Pae Aronui: NZ\$7.0 million for all sectors and not exclusive to apprenticeships
- Māori and Pasifika Trades Training: NZ\$6.6 million for all sectors and not exclusive to apprenticeships.

The completion rates analysis and funding architecture breakdown reveals that multiple programs target similar challenges with overlapping target populations and support mechanisms. Mapping initiatives against the apprenticeship journey demonstrates concentration of support at entry stages, with limited intervention focused on completion. Of the 11 programs examined, only Fees-Free (redesigned in 2025 to cover the final year rather than first year) explicitly incentivizes completion. Most programs emphasize reducing employer risk, supporting entry affordability, and providing pastoral care during early apprenticeship stages, creating a systematic imbalance where participants receive substantial support to commence training but diminishing assistance to persist through completion. Many programs specifically targeted Māori and Pacific cohorts.

Financial barriers for apprentices

Apprentices face significant financial pressures that threaten participation and completion. While receiving employer wages, starting compensation typically aligns with the minimum wage or training wage (there are statutory minimums in New

Zealand. Employees aged 16 and over must be paid at least the minimum wage. There are three types of minimum wage: adult, starting-out, and training). The interviews highlighted that financial stress proved particularly acute for older apprentices, often with family responsibilities. This contradicted some traditional policy assumptions that apprentices were school leavers with minimal financial obligations.

Demographic analysis reveals apprentices skew older than other tertiary learners, with modal age groups for institutes of technology and polytechnics and private training establishments centered on 25-34 years rather than 20-24 years for universities. Furthermore, sector entry data shows 58% of new construction sector entrants transition from other industries rather than school or tertiary education, indicating substantial life and work experience among apprentices (MBIE, 2024; Waihangara Ara Rau, 2024a).

Current policy creates ambiguity regarding apprentice access to student financial support. While work-based learning appears eligible for off-job component costs under StudyLink (StudyLink is primarily an online service connecting learners with information needed to make educational decisions. StudyLink also provides financial information and support), information accessibility remains poor and uptake is minimal.

International examples offer relevant models. The Netherlands provides performance-based grants (convertible to non-repayable if qualifications obtained within 10 years), Germany offers vocational training allowances for apprentices living independently, and Ireland provides tool allowances to craft workers. Canada's Apprentice Loan evaluation demonstrates that interest-free loans significantly support completion, with 81% of recipients indicating loans were important or very important for covering training costs and other related expenses (ESDC, 2017, 2020). The loan also responded well to the needs of women, Indigenous, disabled, and older apprentices

as well as those on low incomes – 65% of Indigenous recipients cited loan awareness as influential in deciding to register for an apprenticeship (ESDC, 2017, 2020).

Inconsistent and uncoordinated pastoral care

Effective pastoral care proves critical for apprentice retention and success, yet delivery remains inconsistent and poorly coordinated. The dual status of apprentices as both students and employees creates ambiguity regarding pastoral care responsibility between training providers and employers. The Education (Pastoral Care of Tertiary and International Learners) Code of Practice 2021 defines provider obligations for ensuring the organized and formal provision of practices to support the wellbeing and safety of learners. But that Code of Practice and the Code of Good Practice for New Zealand Apprenticeships is silent on employer responsibilities in relation to pastoral care – most relevant for work-based learning contexts.

Formal pastoral care delivery typically falls to training advisors maintaining apprentice relationships at work sites. However, effectiveness varies based on provider resourcing, training advisor capacity, visit frequency, and scope definition. Stakeholders describe the process as 'fairly loose', with learner needs often identified through training advisor observation, creating opportunity for individuals to 'fall through the cracks'.

Employers recognize important roles in apprentice wellbeing beyond workplace training, guiding apprentices through life administration, financial management, and personal challenges. However, many employers—particularly small businesses—lack resources and knowledge for comprehensive pastoral care provision. Research participants noted:

'From a support basis, there's very little out there. You've gotta go and look for it all. There's no way that you go to the local assessor. He doesn't know. He's not gonna give you any assistance' (employer)

Promising models exist within specific programs. Group training organizations provide consistent points of contact outside training workplaces, offering mentorship, progress tracking, and ensuring arrangement satisfaction (MSD & TEC, 2020). Te Ara Mahi recipient organizations employed dedicated support persons for each apprentice, developing close relationships and proactively identifying challenges. Cook Brothers Construction received government funding and established an academy-style learning model and created the role of the Apprenticeship Development Coordinator who was responsible for day-to-day running of the apprenticeship programme, and provided essential pastoral care, mentoring, and guidance to apprentices (ConCOVE & Skills Group, 2024). These support models shifted information and assistance burden from training providers and employers to project facilitators, demonstrating effective streamlined approaches (BERL, 2023; ConCOVE & Skills Group, 2024).

Programs serving priority populations demonstrate the importance of culturally appropriate pastoral care. Pae Aronui providers actively worked with Māori learners and their extended family to build tailored solutions, providing transport services, accommodation assistance, and connection to cultural identity. For many Māori learners, this represented their first positive engagement with the Māori world, language, customs, cultural heritage and lineage, and knowledge, serving as protective factors supporting participants through challenges beyond program participation (Grootveld, 2020).

Variable employer training quality

Apprenticeship quality depends fundamentally on employer capacity and capability to deliver effective on-job training, and the extent to which there is encouragement and support for the apprentice generally. The research revealed significant variation in training quality. Some employers coordinate effectively with training advisors, ensuring flexibility for apprentices to complete bookwork and practical assessments. Conversely, some apprentices and employers referenced 'old-school' mentalities creating unsupportive learning and working environments. Poor quality training, or lack of it in the workplace, is often cited as a key reason for non-completion of apprenticeships (Alkema, 2016).

Employers face challenges balancing business operations with training provision (Allen + Clarke, 2020; Jeffcoat & Jeffcoat, 2006; TPK, 2024a). Creating structured learning opportunities requires intentional planning to ensure apprentices apply learned skills in field settings. Lack of clear understanding about qualification pathways and requirements among employers can impede education and training outcomes, particularly when training plans are not in place or are underdeveloped.

The New Zealand construction and infrastructure sector has a high proportion of sole trader, micro, and small and medium businesses. Given industry structure, the administrative burden associated with apprentice management acts as a participation barrier. Stakeholders and employers commented that good companies deliver high-quality programs regardless of funding, often representing larger organizations or smaller businesses within larger supply chains that have access to more resources. Many employers lack resources or developed behaviors to support quality apprenticeships, suggesting apprenticeship training may be better placed in larger employers with the

administrative and financial infrastructure to absorb short-term fluctuations and undertake the level of compliance required (Allen + Clarke, 2020).

Formal employer training initiatives remain limited and voluntary. The Building and Construction Industry Training Organisation (BCITO) recently launched courses improving employer capability to host apprentices, exceeding participation expectations with 120 employers across 10 courses by August 2024. Participants provided positive feedback, with industry associations requesting bespoke training for members. However, courses remain voluntary without mandatory requirements for employers or workplace-based trainers to obtain formal training qualifications or assessed competency levels.

International jurisdictions demonstrate stronger employer monitoring. Ireland employs Authorised Officers supporting statutory apprenticeship system elements, including employer approval, apprentice registration, National Register maintenance, and welfare support including on-the-job training quality monitoring (Department of Further and Higher Education, Research, Innovation and Science, 2021; National Apprenticeship Office, 2023). The Netherlands requires employer accreditation by the Foundation for Cooperation on Vocational Education, Training and Labour Market, with accreditation processes checking company learning environment quality and supervisor qualifications (Cedefop & EBCO, 2019; European Centre for the Development of Vocational Training, 2016).

Misaligned financial incentives to take on, retain, and complete apprenticeships

Wage subsidies like Apprenticeship Boost provide incentivization for employer participation, particularly given that taking on apprentices can mean significant initial investment with limited immediate return. Financial incentives can insulate employers

from risk, allowing them to trial potential workers at minimal cost while providing flexibility for training and pastoral care provision. The 49% increase in apprenticeships since 2019 is frequently attributed to direct employer incentives.

However, international experience suggests caution regarding financial incentive design. The Organisation for Economic Co-operation and Development warns that incentives providing employers fixed sums to take on apprentices demonstrate small impact on overall apprenticeship provision (OECD, 2018). Stakeholders, employers, and apprentices shared anecdotal evidence of potential misuse. Cases described included enrolling existing employees into apprenticeships rather than recruiting new talent and not providing training or completion support.

The lack of monitoring and accountability mechanisms for employer training provision exacerbates incentive misuse potential, and leads to weak feedback loops to enable useful evaluative insight.

Fragmented information and navigation systems

Apprentices and employers report difficulty locating support program information spread across multiple websites and organizations including StudyLink, Careers New Zealand, Ministry of Social Development, various providers, and Tertiary Education Commission. Some employers demonstrated limited awareness of funding availability and eligibility, and broader wrap-around supports available through government agencies.

Many apprentices accessed opportunities through immediate network relationships and word-of-mouth, speaking freely about apprenticeship realities in chosen trades. While effective individually, stakeholders noted this approach lacks

sustainability and scalability at system level, with high potential for individuals who do not have existing industry connections to 'fall through the cracks'.

International jurisdictions provide dedicated portals consolidating apprenticeship information. England's online apprenticeship service enables employers to access and manage funding, advertise vacancies, register for train-the-trainer courses, select training providers, and provide feedback while managing levy payments (www.apprenticeships.gov.uk). Ireland's Apprenticeship Management System simplifies employer engagement, allowing end-to-end company apprentice management from recruitment through program progress, employer grant payments, and consortium development opportunities (<https://apprenticeship.ie/>).

Negative perceptions of VET and apprenticeships

Multiple stakeholders highlighted perceived parity of esteem issues between VET and university education. Research shows perception among young New Zealanders that universities hold higher societal standing, provide superior education, and that VET caters to a lower class of students (TEC, 2018). Interviewees commented that this perception manifests in secondary school educators' reluctance to promote non-university pathways, even when those other pathways offer degrees and high-quality education.

These perceptions contribute to skill shortages in key trades, with training providers struggling to attract students whose viable alternative is university study. This phenomenon partly explains why the majority of apprentices are aged 25 or older, as individuals recognize trades qualification value after workforce experience. Interview data illustrated this pattern, with one 35-39-year-old plumbing apprentice reflecting on

transitioning from a philosophy degree and office work in the United Kingdom to a New Zealand apprenticeship.

Historical government policy using VET to target youth at risk of school disengagement or not in education, employment, or training (NEET) can limit employers' willingness to participate in apprenticeship programs. Stigma related to working with previously unemployed individuals or scepticism toward 'government schemes' creates buy-in difficulties, especially when alternative labor options exist. These perceptions also contribute to diversity and inclusion challenges, with the construction and infrastructure sector showing 94% male apprentice representation compared to 6% female in 2023. Barriers include inadequate facilities, unwelcoming environments not conducive to diversity, and career advisors failing to promote trades to diverse genders.

Unclear strategic direction and accountability

Stakeholder feedback consistently emphasized unclear roles and responsibilities across government, education providers, industry, and employers. From the government policy perspective, skills issues span multiple agencies, with Ministry of Education, Ministry of Business, Innovation and Employment, Ministry of Social Development, Te Puni Kōkiri, Tertiary Education Commission, and New Zealand Qualifications Authority each contributing to skills development and apprenticeship policies. Different agencies pursue different goals: Ministry of Education approaches from the learner perspective ensuring quality skills acquisition, Ministry of Business, Innovation and Employment focuses on business needs and economic growth, and Ministry of Social Development supports skills for social betterment while targeting reductions in the number of people on unemployment benefits.

While coordination mechanisms exist, industry stakeholders, employers, and learners perceive the system as unclear, involving multiple parties, and lacking articulated commitment on the objectives for apprenticeships. Stakeholders noted that Ministry of Social Development administering bulk apprenticeship-related payments signals social development prioritization rather than education, learning, or economic growth emphasis, despite policy recognizing apprenticeships serve multiple outcomes.

Government agency representatives acknowledged the inconsistent approach to developing, monitoring, and evaluating policies and taking systems approaches to address gaps or underperformance. No overarching view exists of apprenticeship support system performance or checks and balances for apprentices, providers, employers, and group training organizations, making effectiveness assessment challenging. While evaluative evidence exists for many individual programs, these reports remain isolated, preventing cumulative suite assessment or overall investment value determination.

International jurisdictions demonstrate alternative governance and strategic approaches. The Netherlands' VET Internship Pact 2023-2027, signed by Ministry of Social Affairs and Employment, Ministry of Education, Culture and Science, and 14 entities including industry associations, local government, education providers, and unions, commits all organizations to ensuring students receive internships or apprenticeships with excellent support, enabling conditions, and appropriate remuneration (OCW et al., 2023). Comparatively, New Zealand's Statement of National Education and Learning Priorities and Tertiary Education Strategy lack explicit apprentice or apprenticeship mention (Ministry of Education, 2020).

Discussion

Implications for policy and practice

The research findings illuminate fundamental tensions in New Zealand's apprenticeship system between quantity and quality objectives, short-term participation targets and long-term completion goals, and centralized policy coordination versus distributed delivery responsibility. These tensions manifest in completion rates significantly below international benchmarks, persistent inequities across demographic groups, and a workforce pipeline that may not meet industry requirements.

The concentration of support at apprenticeship entry stages rather than completion reveals systemic misalignment between stated objectives (developing skilled workforce) and actual intervention focus (encouraging program uptake). This pattern reflects broader VET policy history emphasizing access and participation as primary success metrics. However, incomplete apprenticeships generate neither qualified workers for industry nor positive outcomes for learners, representing inefficient public investment and missed human capital development opportunities.

Financial barriers facing apprentices receive insufficient policy attention given their documented impact on completion. International evidence, particularly from Canada's Apprentice Loan evaluation, demonstrates that targeted financial support improves completion rates and supports equity objectives for disadvantaged groups (ESDC, 2017, 2020). The current New Zealand approach, which provides minimal direct financial support to apprentices while offering substantial employer incentives, creates asymmetry where employers bear reduced risk while apprentices shoulder full financial burden of training years with limited income.

Pastoral care inconsistency could learn from demonstrated success models within specific programs. The group training organization model, Te Ara Mahi approach, and Cook Brothers Construction Apprenticeship Academy (BERL, 2023; ConCOVE & Skills Group, 2024; MSD & TEC, 2020) illustrate that dedicated support personnel with clear responsibility, adequate resourcing, and flexibility to address individual needs significantly improve apprentice outcomes. Scaling these approaches systemwide requires clarity regarding who bears pastoral care responsibility (provider, employer, or dedicated intermediary), how quality pastoral care is defined and resourced, and how cultural responsiveness integrates into support delivery.

Employer capability variation constitutes perhaps the most challenging systemic issue given the fundamental role of quality on-job training in apprenticeship model effectiveness. Current voluntary approaches to employer training and minimal accountability mechanisms create unacceptable quality variation. However, stakeholder resistance to 'audit-type' processes necessitates carefully designed interventions balancing support with accountability. BCITO's voluntary training course uptake suggests employer willingness to develop capability when accessible, relevant programs exist. Expanding these initiatives while implementing graduated accountability measures—potentially linked to financial incentive receipt—could improve baseline quality without imposing excessive compliance burdens.

Financial incentive design requires recalibration to prevent misuse while maintaining participation encouragement. Linking subsidy payments to demonstrated progress markers (completion of qualification stages, assessment achievements) rather than simple enrollment could better align incentives with quality outcomes while maintaining employer support for genuine new apprenticeships.

Toward system coherence

The identified challenges collectively indicate need for fundamental system redesign emphasizing coherence across multiple dimensions: strategic objectives alignment, role and responsibility clarity, support mechanism coordination, quality assurance integration, and outcomes monitoring standardization. Current fragmentation creates inefficiencies where well-intentioned programs work at cross-purposes, duplicate efforts, or leave critical gaps unaddressed.

Strategic coherence requires explicit articulation of what New Zealand seeks to achieve through apprenticeships. Is the primary objective addressing skill shortages, providing employment pathways for disadvantaged youth, supporting Māori and Pacific peoples' economic participation, or increasing overall workforce qualifications? While apprenticeships can serve multiple objectives, clearer prioritization would enable more targeted intervention design and more meaningful performance assessment. The absence of apprenticeships in tertiary education strategy policy documents signals strategic ambiguity requiring correction. A new strategy is to be issued by the end of the 2025 calendar year, and apprenticeships should be explicitly included.

Operational coherence necessitates clear delineation of which organizations hold responsibility for what aspects of apprenticeship support. The current arrangement where five government agencies administer 11 programs targeting overlapping populations creates coordination challenges and stakeholder confusion. While distributed delivery enables specialization and community connection, it requires robust coordination mechanisms and unified information systems that currently do not exist.

Quality coherence demands consistent standards and expectations across providers, employers, and support organizations, with appropriate accountability mechanisms ensuring adherence. The Education (Pastoral Care of Tertiary and

International Learners) Code of Practice and Code of Good Practice for New Zealand Apprenticeships could provide foundation for enhanced quality expectations if strengthened to include explicit pastoral care responsibilities for employers and clearer training quality requirements.

Information coherence through consolidated digital platforms could significantly improve system navigation for apprentices and employers while enabling better data collection for policy monitoring. International examples demonstrate feasibility of comprehensive systems managing multiple functions from apprenticeship opportunity advertising through progress tracking to payment administration.

Future research directions

A comprehensive system assessment was undertaken but focused primarily on policy and structural dimensions rather than detailed practice-level analysis. Future research could usefully examine:

- Detailed cost-benefit analysis of different support model configurations to inform resource allocation decisions
- Longitudinal tracking of apprentice cohorts to better understand completion barrier timing and nature
- Experimental evaluation of specific interventions (enhanced pastoral care models, employer training requirements, modified financial incentive structures) to build causal evidence
- Employer perspective research examining decision-making regarding apprentice recruitment, support provision, and completion facilitation

- Deeper investigation of demographic completion disparities to inform equity-focused interventions

International context and transferability

While this research focuses on New Zealand, findings resonate with apprenticeship challenges documented internationally. Australia's recent apprenticeship system review identified similar concerns regarding completion rates, support fragmentation, and quality variation (Australian Government Department of Employment and Workplace Relations, 2024; DEWR, 2022b, 2022a). Apprenticeship reforms across the United Kingdom address comparable issues related to employer standards, learner financial support, and program quality assurance (Amin-Smith et al., 2017; Department of Further and Higher Education, Research, Innovation and Science, 2021; OECD, 2022; Powell, 2023; Skills Development Scotland, 2023). These parallel experiences suggest identified challenges reflect common apprenticeship system tensions rather than New Zealand-specific circumstances.

However, New Zealand's particular context—small population, geographic dispersion, Treaty of Waitangi obligations to Indigenous populations, and specific industry structure—requires tailored solutions rather than direct policy lift-and-shift from other jurisdictions. The research appropriately draws on international examples for inspiration while recognizing that effective reforms must align with New Zealand's unique institutional arrangements and cultural context.

Limitations

Several limitations warrant acknowledgment. Interview fieldwork occurred during government consultation on VET system reforms (July-August 2024), potentially influencing stakeholder perspectives. Recruitment challenges, including market

downturn conditions and consultation fatigue, necessitated pragmatic sampling rather than comprehensive demographic stratification. The timing coincided with significant policy uncertainty regarding the future of Te Pūkenga (New Zealand's national VET provider) and broader VET system changes. Despite these constraints, the study achieved meaningful diversity across participant characteristics, geographic regions, and organizational perspectives.

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Declaration of interest statement

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Table 1. Definition of New Zealand Apprentices and Managed Apprenticeships

New Zealand Apprenticeships The definition of New Zealand Apprenticeships (NZA) is (TEC, 2024): • An apprentice must be employed in the occupation for which they are training. • The apprenticeship must meet any regulatory requirements for entry into the occupation. • Throughout their apprenticeship, an apprentice must be supported by a training plan agreed by them, their employer, and the tertiary education provider through a tripartite agreement. The apprenticeship must include a strong theoretical component and result in either: • a Level 4 New Zealand qualification, comprising a minimum of 120 credits, or • two or more qualifications totalling at least 120 credits, provided this includes only Level 3 and 4 qualifications and at least 60 out of the total credits are at Level 4. It's expected that on completing an NZA, an apprentice will be "work competent" for the occupation they've been training in. Their industry determines the standard of competency to be met. NZAs are organised through a tertiary education provider or private training establishment (PTE). Managed Apprenticeships Managed Apprenticeships are training programs offered by institutes of technology and polytechnics (ITPs) (Mahoney, 2009, 2015). Managed Apprenticeships have the following features: • the apprentice is enrolled at an ITP • study leads to a national qualification at Level 4, consisting of 120 or more credits • the participants are in work and training in a field that applies to their employment • training is governed by a tripartite training agreement between the institution, the apprentice and the employer, and • work-based learning providers have little or no involvement in training administration.
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Table 2. Comparative completion rates of construction and infrastructure apprentices

	Total working-age population (all industries)	Total number of apprentices in-training (all industries)	Sector	Percentage of construction and infrastructure apprentices as a proportion of all apprentices	Completion rate
New Zealand	3,453,000 (2024)	77,490 (2023)	Building	46% (2023)	51% (2017 cohort)
			Civil engineering	2% (2023)	39% (2017 cohort)
			Electrical engineering & technology	12% (2023)	58% (2017 cohort)
Australia	17,687,000 (2024)	239,800 (2023)	Building	29% (2023)	58% (2017 cohort)
Canada	26,322,000 (2024)	459,210 (2023)	Carpenters, electricians, plumbers & construction workers	41% (2023)	
			Carpenter	12% (2023)	27% (2017 cohort)
			Construction electricians		40% (2017 cohort)
England	36,572,000 (2022)	781,660 (2023/24)	Construction, planning & the built environment	8.3% (2023/24)	53% (2024)
Germany	53,577,000 (2023)	1,216,560 (2023)	Crafts	28% (2023)	
			Construction		75% (2019)
Scotland	3,517,390 (2022)	38,595 (2024)	Construction	35% (2024)	74% (2019)
Ireland	3,473,000 (2023)	27,470 (2023)	Construction	20% (2023)	
			Carpentry & joinery		45% (2022)
			Plumbing		55% (2022)
			Electrical		65% (2022)
The Netherlands	11,388,000 (2023)	469,600 (2023)	Technology & built environment	28% (2023)	70% (2022/23, all)

Various sources (Department for Education, 2024; DUO, 2024a, 2024b; McMahon et al., 2023; Ministry of Education, 2024b; National Apprenticeship Office, 2024; National Centre for Vocational Education

Research, 2024; OECD, 2025; Skills Development Scotland, 2024; Statistics Canada, 2024; Statistisches
Bundesamt DE Statis, 2024)