Architecture Graduate progression to Practice in New Zealand: 1987–2018

Errol Haarhoff, Paola Boarin, Natalie Allen

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FUTURE CITURE R E S E A R C H H U

Architecture Graduate progression to Practice in New Zealand: 1987-2018

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Table of content

Table of content	1
Acknowledgments	3
Abstract	5
1. Introduction	7
2. Research context	11
3. Methodology	
4 Architectural graduates in New Zealand: 1987 to 2018	19
/1 An increasing number of architecture graduates	19
4.1. An increasing number of architecture graduates	
4.3. Graduates and ethnicity	
4.4. Summary points	
5. Registration	
5.1. Introduction	
5.2. Graduates 1987-2018 and registration	28
5.4. The 'gan' between graduation and registration	
5.5. Regional distribution of graduates	
5.6 Summary points	35
6 Professional membershin	
41 Mombarchin estagoriae	
6.2 Membership among the graduates: 1987-2018	
6.3 Accounting for the 'missing' graduates	40 40
6.4. NZIA membership and engagement with practice	
6.5. Registered Architects and NZIA Architect membership	
6.6. Summary points	45
7. Women and Architecture	
7.1. Women and the profession of Architecture	
7.2. Women among the architecture graduates 1987–2018	
7.3. Women registered as Architects	
7.4. Women as members of the New Zealand Institute of Architects	
7.5. Summary points	60

8. Speaking with women about the practice and profession of Architecture	63
8.1. Architectural education and the transition to practice	65
8.2. The registration process	67
8.3. Defining Architecture and the roles of the Architect	69
8.5. The experiences of women in the profession	71
8.6. The future of the profession	73
8.7. Summary points	74
9. Conclusions and recommendations	77
9.1. Recommendations for the NZRAB	80
9.2. Recommendations for the NZIA	80
9.3. Recommendations for Practices	80
9.4. Recommendations for the Schools of Architecture in New Zealand	81
9.5. General final recommendations	81
References	83
List of figures	
List of tables	



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Abstract

This report presents the findings of longitudinal research exploring the progression of architecture graduates from The University of Auckland, Victoria University of Wellington and Unitec over a 32-year period. An initial Survey tracked graduates from 1987 to 1999 and a Second Survey extended the tracking to 2008. This Third Survey in the series takes the analysis to 2018.

The research seeks to understand how New Zealand architecture graduates progress into the architecture profession in New Zealand, indicated by registration as architects and/or membership of the New Zealand Institute of Architects (NZIA). In addition, the report explores gender balance among graduates and within the profession, analysing challenges, barriers and expectations of women among architecture graduates and in the practice of architecture in New Zealand.

Graduate lists were gathered from The University of Auckland, Victoria University of Wellington and Unitec, all offering accredited architecture programmes in New Zealand. Data were then compared with the public list of the New Zealand Registered Architects Board (NZRAB) and the various individual membership categories of the NZIA. Additional information on women graduates was gathered through two focus groups held in Auckland and Wellington in late 2019.

The research provides an evidence-based account for use by the Schools of Architecture, the NZRAB and the NZIA and, beyond, to all architecture practices in New Zealand.



1. Introduction

Interest in tracking the progression of architecture graduates, and especially women graduates, to the architecture practice and professional registration in New Zealand was triggered when one of the authors, Errol Haarhoff, served as a Member of the (now defunct) Architects Education and Registration Board (AERB) that had powers to register (or 'licence') architects to practice in New Zealand¹. At that time, an observation made was that, despite professional architecture programmes in New Zealand then having close to gender parity among graduates, the number of women architects who were registered fell far short of this proportion (Haarhoff, 2001). Of special interest in this report is to see what changes the data reveals.

This led to the two previous Surveys undertaken as part of this longitudinal study, tracking the progression of graduates from professional architecture programmes in New Zealand, to membership of the New Zealand Institute of Architects (NZIA) and legal registration with the New Zealand Registered Architects Board (NZRAB). The First Survey tracked graduates over the period from 1987 to 1999 (Haarhoff, 2001), and the Second Survey extended the tracking to 2008 (Haarhoff, 2010). This is the Third Survey and follows a 32 year cohort of architecture graduates from 1987 to 2018. Joining the study in this Third Survey is Dr Paola Boarin (Senior Lecturer at the School of

¹ The Architects Education and Registration Board (AERB) was replaced in 2005 by the New Zealand Registered Architects Board under the Registered Architects Act (2005). Architecture and Planning, The University of Auckland), and Dr Natalie Allen (Adjunct Senior Lecturer in the same School, and Director of The Urban Advisory Ltd).

The Surveys have aimed to provide an evidencebased account of the number of architecture graduates from professional architecture programmes in New Zealand. At the time of writing there were three such programmes - at The University of Auckland, Victoria University of Wellington and Unitec Institute of Technology. The Survevs provide а quantitative understanding over time about the progression of graduates into the practice of architecture in New Zealand. They also examine the impacts of other changes in both architectural education and the organisation of the profession. For example, in 2009/2010 the five-year Bachelors programme was replaced by the so-called '3+2 model' - a three-year Bachelor of Architectural Studies followed by a two-year Master of Architecture (Professional). The Survey period also covers the introduction of a new professional architecture programme at Unitec, Auckland, in 1998.

Progression of architecture graduates to the formal practice² is taken as being an indicator by membership of the NZIA and registration with the NZRAB. While it is accepted that graduates may engage with architecture as a career in other ways, and in other places, it is the formal

² In this report, the term 'formal practice' in this report refers to membership of NZIA and/or registration with the NZRAB. Please see section 3. Methodology for more information.

links established with the NZIA and the NZRAB that are able to be quantified.

Perhaps most important, the data and its analysis over a 32-year period enables tracking of women graduates, and their entry into the profession and practice of architecture. The First Survey (Haarhoff, 2010) found that of the 1,779 graduates between 1987 and 1999, 32 per cent were women, but of these, only 22 per cent went on to be registered as architects. The Second Survey (Haarhoff, 2010) covering the period 1987 to 2009 found that, among the 2,983 graduates, 37 per cent were women, a 16 per cent increase between 1999 and 2009. However, the percentage of women graduates who were registered architects when surveyed was 17 per cent (a reduction from the 22 per cent reported for 1999). Gill Matthewson (2014) found a similar proportion in Australia - despite women constituting around 40 per cent of architecture graduates, only 21 per cent of registered architects were women. This most recent Survey tracks any further changes to these metrics in the New Zealand context through to 2018.

Since the publication of the Second Survey in 2010, there has been an expansion of interest and concern expressed about perceived inequalities of opportunities for women to progress in the profession of architecture. Gill Matthewson (2016) does however detect some changes: the percentage of registered architects in South Australia who were women was relatively low, but noticed that the 'number of women on the register has steadily increased'. She also observed that the number of male registered architects seemed to have plateaued, when compared female to

counterparts. This, as Gill Matthewson (2016) suggested, means that women "are the main engine of growth for registered architects."

Despite this observation and despite there now beina gender parity among architecture graduates, the proportion of women who are registered as architects. while slowing increasing, is still low when compared to men. Allison Arieff (2018), writing in the New York Times, reports on the same situation prevailing in the USA: "The last major survey found that women account for half of graduates from architecture programmes in this country, but they make up about 20 per cent of licensed (registered) architects and 17 per cent of partners or principals in architecture firms". These concerns have led to a deeper probe into what lies behind the data, leading to women architects and graduates forming stronger alliances.

A recent response to Allison Arieff's (2018) New York Times article cited above, is from Julia Gamolina (2018) who retorted with her article *Stop asking where all the female architects are: we're right here*. She went on to argue that instead of asking where the female architects are, we "should start writing about their stories" (Gamolina, 2018). Indeed, Gamolina saw the New York Times article as one:

> [...] not titled to advance our cause. The piece did talk about redefining success since there's often a limited view of what being an architect means. But its headline, along with a slew of others lately asking where are the female architects, adds to the misleading narrative that there

are none out there. It's a negative story to suggest because there are truly so many. [...] We need to listen to them [women], write about them, amplify them, and support them in combating the issues our industry faces in order to change this situation. (Gamolina, 2018)

Taking up the challenge of not asking where they are and writing about them, Women in Architecture organisations have emerged. Julia Gamolina established a website. Madame *Architect*⁶, with the mission of making the work of women architects more visible. This was the aim of a recent edition of the KwaZulu-Natal Institute of Architects Journal in South Africa. under the editorship of Karuni Naidoo, Chair of the Women in Architecture South Africa, that highlighted the work of women architects, whether registered or not (Naidoo, 2016). In New Zealand, these concerns have seen the formation of Architecture+Women-NZ in 2011. Now with 805 members⁴, its mission is to make the work of women architects more visible. One outcome was an exhibition of 500 women architects' work "as a snapshot of the contemporary condition of how architecture and women relate" (Simmons, 2014).

Lynda Simmons, a founding member of *Architecture+Women-NZ*, made the following observation:

I have taught almost a thousand women during my 24 years in

education, and have watched sadly as so much talent is lost or reduced to the profession over time at a higher rate than is the case with their male friends. (How dare the profession benefit from the skills of graduates for their first five to 10 years of working, and then ignore them when the issue of reduced working hours arises? And how foolish). I want to be part of a profession that is able to offer more than that to the incredible talent that we benefit from working with. (Simmons, 2019)

Given the importance of these issues, we have included in this report the findings from two focus group sessions with female architects and architectural graduates in Auckland and Wellington. This builds a picture of the context in which to interpret what the numbers (that are quantitative) are telling us.

Following this introduction, the research context and the methodology underpinning the work are presented. The next sections trace an analysis of the graduates from architecture programmes in New Zealand from 1987 to 2018 and the progression of these graduates to registration by the NZRAB and to Membership of the NZIA. Two sections are devoted to women in architecture: the first extracts relevant guantitative data related to women graduates, and their progression to registration and professional membership of the NZIA; the second, reports on the outcomes to the focus group discussions. A summary of key points is given at the end of the main sections, and overall conclusion are drawn in the final

³ See <u>https://www.madamearchitect.org/</u>.

⁴ Architecture+Women-NZ brings together the diverse practices of women trained in the field of architecture and seeks to raise their profile in the public realm. See: https://www.architecturewomen.org.nz/.

section, along with recommendations to relevant organisations.

The data and the information presented provide a profile of architecture graduates and progression to the practice of architecture in New Zealand. Given that this is the third in a series of studies, we are also able to make comparisons with previous findings and reveal key changes. We also identify what may be key issues for educators and the profession in the decade ahead to ensure the relevance of the profession in a changing world and for the profession to have continuing leadership roles in the shaping the built environment.

2. Research context

As outlined in the previous Survey (Haarhoff, 2010), it is surprising to discover that not all graduates of architecture appear to enter architecture practice, given the competition for places in programmes and the commitment that is required to complete the degree. The 2010 report noted that there seemed to be little empirical data on what Olsen (1994) saw as the "significant falloff between graduation (in architecture) and licensure" and this largely remains the case. To investigate the context surrounding this falloff, a review of the literature surrounding the profession - and the education that underpins it - has been undertaken to frame the findings developed in this research.

Architecture is a long-established profession that has evolved alongside the environments in which we live. To understand what constitutes the architectural profession in today's context, the following section of the literature review explores both the practice of architecture and the roles of those practising. The terms 'architecture' and 'architect' are not easily defined, with diverse views of what makes both the practice and the practitioner (Quintal, 2016). Historically, definitions of architecture have connotations of "mastery", "genius" and "autonomy" (Lange & Scott, 2017) and recent literature explores these terms as supporting the traditional, competitive, "hero" culture of architecture (Matthewson, 2012; Heynen, 2012; Thompson, 2016; Ahuja, Nikolova, & Clegg, 2017). In New Zealand, the New Zealand Registered Architects Board (NZRAB) defines an architect in legislative terms (a 'title registration' approach) – "only a person who is a Registered Architect is allowed to describe him or herself as an architect" (New Zealand Registered Architects Board, 2004) –, while the New Zealand Institute of Architects (NZIA) offers a definition of the architect described in terms of skill – "an architect's work is essentially driven by four fundamental elements: technical skill, practical understanding, analytical ability and creativity" (New Zealand Institute of Architects, n.d.-a).

In 2011, the Roval Institute of British Architects (RIBA) published a study in which they interviewed over forty individuals from across the built environment professions, to compare long term views of the industry (Jamieson, Robinson, Worthington & Cole, 2011). The study found that, generally, the architect's role is growing and morphing in line with the changing nature of built environment projects, with many architects diversifying by forming new identities alongside their existing 'architect' identity. A more recent wide-scale study of architectural education and the profession across Australasia found many architects working in more specialist areas rather than the "established generalist model" of architecture (Architects Accreditation Council of Australia, 2019, p.25). The study also identified a growing tension architecture and between surrounding disciplines, with "a proliferation of other professionals and semi-professionals operating in specialist fields of knowledge, some of which are seen as encroaching on the architect's

traditional domain" (Architects Accreditation Council of Australia, 2019).

The 'title registration model' that we use in New Zealand is under question. RIBA's 2011 study determined that the label 'architect' (as used in a title registration model in the UK) can be restrictive, prompting questions around whether regulatory bodies may need to evolve the "20th century definition of what it means to be an architect in order to fit better with the broader 21st century reality of the profession" (Etherington, 2011). Further to this, a 2015 study by Architecture Accreditation Council of Australia (AACA) found that the title registration model may discourage people from registering because they "can work in architect-like roles indefinitely - including rising to senior management and even partnership positions in firms - without there necessarily being an imperative to undertake registration" (Architects Accreditation Council of Australia. 2015, p.17).

Early adopters of modern, flexible, modes of working have seen benefits in their employees' well-being and overall productivity (Werk, 2019). Still, architecture, as a traditionalist profession, has been said to have been lagging in its adoption of these modes as it clings to its nineteenth-century roots (Lange & Scott, 2017). Lisa Hinton, director of a New Zealand architecture firm, highlights this as an important issue:

> Our industry hasn't worked out how to accommodate flexible working, which is partly because of the nature of construction and the five day a week commitment often

required [...]. Our industry should be doing more to promote flexible working and address what is a real issue of losing our talented women because of rigidity and old ways of working. (Strang, 2018)

In the previous study (Haarhoff, 2010), one explanation offered for the falloff between education and registration of graduates was the pursuit of alternative careers. This explanation is increasingly valid with the flexible future of work. Recent literature references the diverse skill sets of architecture graduates, enabling easy "side-stepping" to other careers (Waldrep, 2014; Thompson, 2016). A recent study by the AACA (2019) highlights the many pathways available to architectural graduates within and beyond traditional practice, finding that, anecdotally, many graduates pursue careers outside the traditional practice but in related fields. However, little research has been undertaken specifically about career paths of Australian and New Zealand graduates, so there is little data on graduate 'destinations' (Architects Accreditation Council of Australia, 2019).

Historical architectural pedagogies are widely still in use. However, their relevance is questioned (Barton, 2015), with alternative pedagogies increasingly adopted to promote collaboration and empathy in architectural education, as a reflection of aspirations for the profession (Thompson, 2016; Brown & Moreau Yates, 2000; Carpenter & Hoffman, 1997; Fisher, 2000; Sara, 2000; Sutton, 2014). There is a particular focus on the introduction of 'live projects' into architectural education (Harriss & Widder, 2014; Harriss, 2015; Pretty & McPherson,



2017). In Encountering the Pedagogy of Live and Interactive Architectural Projects (2017), Pretty & McPherson look to 'untangle' the live projects model in a New Zealand context. They find value in live projects to enable education to come closer to practice, "moving from the speculative notions within many of the traditional studio briefs to the guite tangible build, i.e., potential architecture". Further, the findings in AACA's report on architectural education and the profession (2019) reinforces the value of bringing architectural practice closer in line with education, in parallel with aspirations for enhanced student exposure to practice and increased focus on practical matters in education.

As identified in the introduction, research shows that more women are studying architecture and that the proportion of women in architecture overall is increasing (Haarhoff. 2010: Matthewson, 2018). However, despite rising numbers, women's representation at senior levels remains low and some research indicates that there has been a sustained disappearance of women from the profession (Matthewson, 2018). The aforementioned labels, historically used to describe architects and architecture, include "master(y)", "genius" and "hero". Studies have suggested that these labels not only reinforce the individualist nature of architecture but also are attributed to masculinity in the profession (Heynen, 2012; Matthewson, 2017; Reimer, 2016). In discussion about her seminal PhD study (2015), in which she interviewed over seventy architects, Matthewson comments that:

> No man in my study mentioned fragility of confidence in design ability, but a significant number of

the women did. This kind of selfcritique is a reaction of the internalisation by women of their 'other' status, of at some level knowing that creative genius (or even merit) resides with men not women, and that they therefore don't quite "belong". (Matthewson, 2017)

Since the previous report on this study (Haarhoff. 2010), the voice of women in architecture has been amplified, alongside the 'fourth wave of feminism' that began in 2012 (Clark, 2016). As mentioned in the report introduction, there has been a substantial growth in women's architecture groups. This arowth includes the formation of Architecture+Women•NZ (A+W-NZ) in New Zealand, Parlour in Australia, Women in Architecture South Africa, Equity by Design (EQxD) and ArchiteXX in the US, and the UKbased annual Women in Architecture survey and awards (Matthewson, 2017). In New Zealand, A+W-NZ contributes to research, through surveys and publications, as well as guidelines for practise and networking events. Since 2011, A+W-NZ has 'collected stories' from its members and colleagues and published them on their website, to highlight the experiences of women in architecture in New Zealand and make this voice louder.

Recent studies have highlighted the continued pattern of women 'disappearing' from professional demographics following graduation and absent in registration statistics (Clark, 2016). General findings are that women 'disappear' as seniority increases and that a higher proportion of women are employees rather than employers; these trends are noticeable in New Zealand, as well as Australia, the US, the UK and Canada (Matthewson, 2016; Matthewson, 2017; Strang, 2018; Campbell, 2019). In line with this, it is frequently noted that women in architecture lack role models and that this lack of visible role models is a crucial contributor to the departure of women from architecture (Omoyeni et al., 2019; Hochstein, 2017). A recent *Equity by Design* survey revealed that almost a third of the women who had left architecture in the US cited the lack of role models as the deciding factor (Pitts at al., 2015). As Hochstein, in New Zealand, points out:

> Many architectural graduates highlight a need for female role models who hold senior positions who could act as mentors. To help with architectural and career development, female graduates are encouraged to request a mentor. (Hochstein, 2017).

Long working hours and difficulty balancing professional and family life are problems for both men and women in architecture. These issues impact women in the profession in different, specific and compounded ways (Stead et al., 2017). The combination of a 'long-hours' working culture which impacts work-life balance, and a lack of flexible hours, were the number one reasons listed in the May 2016 Australian Institute of Architects (AIA) survey about why women are under-represented in architecture (Hochstein, 2017). Clark (2016) notes that women are adopting survival tactics in light of this, by diversifying, moving to small practice or stepping sideways within the wider profession.

As the profession of architecture is evolving, it is timely to investigate the current nature of the architectural profession and education in New Zealand. The literature has revealed challenges in the formation of a modern architect identity, particularly for women, and highlighted barriers to progression in the industry. These factors have informed the need for an updated study on the contemporary context of architecture in the country to understand how they impact New Zealand and identify areas for improvement.



3. Methodology

The quantitative methodology used in the previous two Surveys is repeated in this third instalment of the research. Although relatively simply, it is remarkable what numbers it can reveal, a point underscored by Gill Matthewson (2018) in relation to gender:

Numbers matter! They help us understand the macro picture of women in architecture. Analysing data allows us to identify patterns. both pleasing and worrying; it provides evidence of the structural impediments faced by women as a group, and gives important context for the stories of women in Australian architecture. The knowledge gained through data analysis is vital for developing strategies for change. (Matthewson, 2018)

The method involves tracking architecture graduates by name across two data sets: the public list of individual architects registered by the New Zealand Registered Architects Board (NZRAB)⁵, and the various individual membership categories of the New Zealand Institute of Architects (NZIA)⁶. While this sounds easy, the quantity of data is large and processing is complicated. Crucial to the Survey are the graduate lists from the educational organisation in New Zealand providing relevant architecture gualifications, applying approved research methods and data confidentiality protocols7. While educational organisations offer a range of gualifications in the field of architecture and related disciplines. such as the Bachelor of Architectural Studies, and research degrees at Master and Doctoral levels, it is only the graduates from architecture programmes recognised and accredited by the professional organisations that are included in this Survey. These are the gualifications that provide pathways to the profession of architecture and formal practice. Over the survey period (1987-2018) there were three Schools of Architecture providing qualifications recognised by the NZRAB and the NZIA: those at The University of Auckland, the Victoria University of Wellington and the Unitec Institute of Technology in Auckland⁸. Over the 32 years covered by this Survey, the accredited gualification has changed from the Bachelor of (BArch), to the Architecture Master of Architecture (Professional) (MArch(Prof)).

Each educational organisation provided graduate lists for their BArch and MArch(Prof) qualifications for the period 2008–2018. The lists gave the full legal name, gender identification

⁵ For the purposes of this study, Licenced Building Practitioners are excluded.

⁶ It is to be clarified that, while membership to the NZIA is not mandatory, it still represents an important measure of engagement with the professional community.

⁷ Research protocols approved by The University of Auckland Human Participants Ethics Committee reference number 021819.

⁸ These are the three professional programmes offered up to the end of 2018. There are currently proposals for new architecture programmes at other universities, such as one at the Auckland University of Technology', but there were no graduates up to the end of 2018 for inclusion in this survey.

and the year in which the qualification was completed. The graduation data was merged with that used in the First and Second Surveys, to provide a comprehensive data set of all relevant graduates between 1987 and 2018 inclusive.

As in the previous two Surveys, formal engagement with the architecture profession in New Zealand is taken to be indicated by holding membership of the New Zealand Institute of Architects, and/or legal registration ('licensing') by the New Zealand Architects Registration Board. This Third Survey is inclusive of all relevant graduates who completed qualifications between 1987 the end of 2018. Their names are compared and identified on the NZIA membership list as it stood at the end of 2018, and to graduates admitted to the NZRAB register during 2018. The list and the register are dynamic, with people joining and leaving at various times. Consequently, the method provides a 'snapshot' of NZIA membership and registration status among the all relevant graduates between 1987 and 2018.

Tracking the progression of graduates to registration by the NZRAB and membership of the NZIA is done by comparing lists and identifying names across spreadsheet lists. Automation of this process, however, was not possible because of inconsistencies in the way data is recorded by the organisations concerned. For example, while educational organisations provide full legal names of graduates, these are not necessarily used when graduates register with the NZRAB or seek membership of the NZIA. Many, for example, use informal or shortened first names. In most case these can be resolved by cross-checking other data, such as that on the registration list (if registered) and the date of degree completion. A further difficulty is matching graduates where Asian first names are 'anglicised', especially when part of a group with common family names and when family names change (such as through marriage). In a few cases, graduates had identical first and family names, but most of these were resolved by considering their registration, degree completion dates, and location. Consequently, the comparison of names across lists was done manually, resolving inconsistencies by interrogating the information available.

Given these difficulties, not all graduates from the Schools who are registered or members of the NZIA are fully identified. This means that the analysis is likely to be undercounting those registered and/or members of the NZIA. However, the margin of error is calculated to be small – less than 5 per cent – and does not impact the broad trends and conclusions indicated by the data.

In this Third Survey, the declared ethnicity of each graduate between 2009 and 2018 was also collected for the first time. Processing this data proved to be difficult because organisations use different self-declared ethnic descriptions. For some organisations, 'Asian' is a single category, but for others this is divided into categories such as 'Indian', 'Chinese', and so on. For some 'European' means from Europe, while in other cases this is linked to 'Pakeha'⁹ meaning New Zealanders of European origin. Some

⁹ Originally, the Pakeha were the early European settlers, however, today 'Pakeha' is used to describe any peoples of non-Maori or non-Polynesian heritage.

organisations permitted multiple ethnic choices, such as 'Pakeha/Māori'. Variable terms are also used to describe those of Polynesian origin, and not declaring ethnicity is an option. To overcome these problems, various categories and descriptions are recombined to produce broad categories useful for analysis. However, a relevant problem with this data is the large number of graduates who do not self-declare their ethnicity.

The other inconsistency is the date of gualification completion, with confusion between the year of graduation (degree conferment) and the year of completing requirements for the award of the degree. To be consistent across the data set, we have used the year in which the gualification is completed as the graduation date. While in the past, most gualifications were completed within a calendar year (usually by the end of a calendar year), Schools now offer mid-year completion, Masters' especially with newer dearee. Consistency is maintained by identifying the year in which requirements for the award of the qualification is completed. This introduces a potential small difference when calculating certain information, such as the number of months between gualification completion and registration with the NZ Registration Board.

There also potential terminological are confusions to be highlighted. At the time of the Survey, there were three professional architecture programmes offered in New Zealand at the named educational organisations. Although each organisation has different administrative structures around a range of degree programmes and gualifications offered, reference is made to the commonly understood term of 'Schools of Architecture' (abbreviated to 'Schools'). Where used, this means that the academic unit delivering the architecture programme of study is recognised by the professional bodies in New Zealand. A further potential confusion is between 'graduates' from the Schools of Architecture, and the 'Graduate' category of membership offered by the NZIA. To make the distinctions, the term 'graduate' is used generically as reference to all those who complete the recognised gualification, whether or not they are registered by the NZRAB or hold membership of the NZIA. A distinction is made between such 'graduates' and those who hold 'NZIA Graduate' membership, one of a number of membership categories offered by the NZIA.

New in this Third Survey, is the inclusion of outcomes from two focus group discussions in Wellington and Auckland with women architecture graduates. In the previous Survey (Haarhoff, 2010), it was found that despite the architecture programmes reaching a point of gender equity among graduates, this was not the case with women who were Registered Architects. While accepting that there will be a 'lag' before registrations to catch up with historic graduate gender inequity, this Third Survey will reveal whether or not this has been achieved, or the extent to which this may have changed. The quantitative part of the Survey that analyses numbers can describe what the situation is now, but it cannot explain why this is the case. It is for this reason that we have included the focus group discussions. The methodology used in this part of the study is described below.

Focus groups were audio recorded and transcriptions made, in alignment with the

requirements of The University of Auckland Human Participants Ethics Committee. To interpret the focus aroup discussion transcriptions, a coding system was used to find common themes and inform further discussion. The coding system allowed these themes to be examined on both macro and micro scales, by passing them through three levels of coding. The first code (Code 1) identified broad, key themes from the discussions in both Auckland and Wellington, keeping the Auckland and Wellington transcripts separate. Each transcript was then categorised by these themes, allocating all text to a macro category (by highlighting text according to a colour code). Code 2 was used to refine this further, by using these macro categories as headings under which the text from each transcript was grouped to form the beginnings of comprehensible clusters of information (at this point it became evident that overlapping text was relevant to more than one category). Code 3 was used to distil these clusters into more refined categories, introducing subheadings to each broad category. This produced microcategories under which all text from Auckland and Wellington transcripts was organised, grouping similar ideas from the two focus groups together. The resulting micro categories are generally aligned with themes from the literature review.

While noting the small margin of undercounting discussed above when matching graduates with the lists of registered architects and membership of the professional organisation, this provides a reasonably accurate 'snapshot' of the progression of graduates into practice in New Zealand, using

association with NZRAB and NZIA as a measure of such practice engagement. It also enables more detailed analysis, such as changing trends over time, and in particular is able to trace the roles of women. However, as the analysis will show, less than half of all graduates become registered architects or join the NZIA. While numbers concerned can be calculated, precisely where the other half of graduates are, and what they are doing, cannot be determined using this data. It requires post-qualification surveys able to track graduates - something that some tertiary institutions attempt to do. However, these surveys tend to be very unreliable because the percentage of returns to requests for information tend to be very low. Also included will be international students. who either have no intention to enter practice in New Zealand or have visa limitations preventing them from doing so. In professional architecture programmes in New Zealand, international enrolments have only become prominent in the past 10-15 years, but account for no more than 11 per cent of graduates (Architects Accreditation Council of Australia, 2019).

Percentages given in the Tables across this report in some case include one decimal point, but when discussing in the text these are rounded to whole numbers.

4. Architectural graduates in New Zealand: 1987 to 2018

This section presents the findings about architectural graduate numbers from 1987 to 2018 in New Zealand.

4.1. An increasing number of architecture graduates

The data provided by the three New Zealand Schools of Architecture shows that, from 1987 to 2018 inclusive, 4,814 students graduated with programmes accredited professional in architecture. The number of graduates in each year significantly increases from 85 in 1987 to 226 in 2018 – an increase of 165 per cent over 32 years. This growth is a consequence of an increasing number of graduates produced by each School (a consequence of larger intake to the Schools), and the commencement of the new programme at Unitec producing its first graduates in 1998.

While the data shows an increase in the number of graduates over the survey period, this occurs over a period when the New Zealand population has increased. Understanding of the relationship between the increases in the number of graduates and the national population indicates if graduate numbers are keeping pace with population growth. Table 1 below shows this relationship for three-decade periods ending 1998, 2008 and 2018, expressed in terms of the number of graduates per 1,000 people in each of these years.

This shows that between 1998 and 2008, the graduate numbers increased with population growth - the ratio increasing from 0.33 to 0.39 graduates per 1,000 (an increase of 18 per cent). However, between 2008 and 2018, there is, conversely, a small decrease in the ratio per 1,000 people, from 0.39 to 0.38 (a decrease of 3 per cent). This shows that over the past decade, despite increasing in the number of architecture graduates, this ratio has remained more or less constant. In the absence of other key data, it is not clear what this might indicate, but may be worth considering in relation to New Zealand's overall needs for architect skills as the population, and related economic activity, increases.

Table 1 - Graduate numbers and the number of graduates per 1,000 people in New Zealand in 1998, 2008 and 2018.

Decade period	Number of graduates	NZ population at the end of	Number of graduates per
	per decade	each decade"	1,000 pop. for each decade
1989 to 1998	1,248	3,815,000	0.33
1999 to 2008	1,657	4,260,000	0.39
2009 to 2018	1,827	4,841,000	0.38

¹⁰ Source: Statistics New Zealand, 2018.

4.2. Graduates and Architecture Programmes

University of Auckland (UoA), Victoria University of Wellington (VUW) and Unitec Institute of Technology (Unitec).

Table 2 provides the number of graduates per year from each of the three Schools: at The

Table 2. Number of graduates from professional architecture programmes in New Zealand from 1987 to 2018.

Year	UoA	VUW	Unitec	Total
1987	59	26	-	85
1988	58	39	-	97
1989	65	25	-	90
1990	73	25	-	98
1991	72	26	-	98
1992	100	32	-	132
1993	87	38	-	125
1994	100	35	-	135
1995	88	40	-	128
1996	81	42	-	123
1997	57	34	-	91
1998	67	49	12	128
1999	101	46	13	160
2000	70	42	23	135
2001	60	62	36	158
2002	61	46	33	140
2003	81	45	35	161
2004	63	47	51	161
2005	63	63	32	158
2006	87	64	36	187
2007	66	66	27	159
2008	106	64	68	238
2009	79	63	9	151
2010	28	13	45	86
2011	93	79	53	225
2012	99	59	37	195
2013	77	51	46	174
2014	80	69	48	197
2015	80	61	32	173
2016	88	65	48	201
2017	81	75	43	199
2018	106	71	49	226
Total per School	2,476	1,562	776	4,814
%	51%	32%	16%	100



While both The University of Auckland and Victoria University of Wellington produced graduates over the full survey period (1987-2018), Unitec had its first graduating cohort in 1998. Over this period, the Bachelor of Architecture was replaced with a Master of Architecture (Professional) at The University of Auckland and Unitec in 2009, and at Victoria University of Wellington in 2010.

Table 2 also shows, over the 32-year Survey period, that The University of Auckland produced just over half of all professional architecture graduates in New Zealand (51 per cent). Just short of one-third were from Victoria University of Wellington (32 per cent), while the new programme at Unitec produced 16 per cent. The percentage for Unitec is misleading because they only produced their first graduates in 1998. Recalculating this for all schools from 1998 to 2018 shows that, over this period, Unitec contributed 22 per cent of graduates. Figure 1 shows the data in Table 2 in chart form.

Despite annual variations, Figure 1 clearly shows the steady increase in the number of graduates from 1987 to 2018. Also shown are different growth rates when comparing the three programmes. Graduation numbers for The University of Auckland indicates strong growth from 1987 (59 graduates) to 1994 (just over 100 graduates), but over the following decade (1999 to 2008) the number of graduates averaged 76 per year. The average over the past decade (2009-2018) is 73 per year. This indicates that apart from the growth between 1987 and 1994, graduate numbers have remained fairly consistent without significant growth. In part, this reflects the cap on new enrolments that is linked to the available studio resources, despite the number of applications far exceeding places available.



Figure 1. Number of professional architecture graduates by year of completion at The University of Auckland, Victoria University of Wellington and Unitec, and the total number of graduates in the period 1987-2018.

The programme at Victoria University of Wellington, on the other hand, shows more vigorous growth. Figure 1 shows that there has been a steady increase in the number of graduates from 1987 (26), to 2018 (71), fed by a steady increase in enrolments over the survey period. In part this has been facilitated by investment in a new building on the Te Aro campus, opened in 1994, and further expansion of space and other improvements over more recent years. Over the last decade, the average number of graduates was 61 per year.

As a new programme, it is not surprising that the Unitec graduate numbers grew sharply from the first graduates in 1998 (12) to 2004 (51). Graduate numbers over the past decade have been fairly stable, averaging 41 per year.

There are also two prominent 'dips' in graduate numbers in Figure 1: around 1997 and 2009/2010. The 1997 dip was explained in the Second Survey (Haarhoff, 2010, p.13) and related to the restructuring of the programme at this time that delayed degree completions. This involved the disestablishment of the one-year Architecture Immediate four-year Bachelor and of Architecture, replaced with a five-year Bachelor of Architecture. This required some students to complete an additional year before graduating. The second and more dramatic decline in graduate numbers occurs in the years 2009/2010 across all Schools, clearly tracked in Figure 1. This is attributed to yet another programme restructuring: the change from the five-year Bachelor of Architecture to the twodegree '3+2 model' adopted by all architecture programmes. This involved the introduction of the 3-year Bachelor of Architecture Studies followed by a 2-year Master of Architecture (Professional). In part, it reflects students strategically delaying their academic study in terms of progression rules, in order to graduate with a Masters' degree. This was also preceded by the Global Financial Crisis (GFC) in 2007 that may have impacted enrolments to these years.

Despite annual variations, increases in graduate numbers over the 32-year period are significant: from 85 in 1987 to 226 in 2018. The previous Survey (Haarhoff, 2010, p.10) forecasted that the total number of architecture graduates would increase to around 230-240 per year by the 2020's, based on the growth trends indicated over the previous decade. This Third Survey now shows that the forecast growth has not eventuated, with an average number of graduates from all programmes over the past decade (2009-2018) being 183 per year. The average over the past five years is 199 per year. It is not known how graduate numbers reflect career opportunities in New Zealand. The government website 'Careers' states that the "demand for architectural graduates has remained stable over recent years with most finding work in the industry [and that this] demand is expected to continue at the same rate"11. It is noteworthy that Immigration New Zealand does not currently lists 'Architect' among prioritised qualifications¹². This contrasts with what was reported in the Second Survey (Haarhoff, 2010), when the then Department of Labour identified a shortage of architects and a need for about 200 graduates per year. No update and forecast on these needs is available.



See: https://www.careers.govt.nz/jobs-database/constructionand-infrastructure/architecture-technical-designmapping/architect/.

¹² See: https://skillshortages.immigration.govt.nz/architect/.

4.3. Graduates and ethnicity

Data on ethnicity is important to reveal the representation of minority groups among the graduates and, in New Zealand, the inclusion of Māori and Pacific Islanders. While not collected in the First and Second Surveys, this data is included in this Third Survey, for graduates completing programmes from 2009 to 2018 inclusive.

As noted in a previous section, reporting on ethnicity by each programme is not consistent,

and is optional. This has required some combining of categories from the three programmes to achieve a comparable data set, and outcomes need to be understood in this light. Data has been grouped into the following categories: 'European' (Pakeha), Asian (includes India), Māori, Pasifika (Pacific Islanders) and 'Other' (including those from Africa, the Americas, Europe and the Middle East).

Table 3 shows the ethnicity of graduates from 2009 to 2018 inclusive from the data provided by the Schools.

Year	European ¹³	Asian ¹⁴	Māori	Pasifika ¹⁵	Other ¹⁶	Totals
2009	81	44	14	3	8	150
2010	12	25	14	2	3	56
2011	93	68	22	1	8	192
2012	82	56	13	4	10	165
2013	63	44	12	9	4	132
2014	93	46	12	2	3	156
2015	66	58	8	7	2	141
2016	74	66	13	5	5	163
2017	75	58	12	7	10	162
2018	86	75	9	8	4	182
Total	725	540	129	48	57	1,499
Percentage	48	36	9	3	4	100

Table 3. Ethnicity of graduates 2009 to 2018.

¹³ Includes the descriptors European, Pakeha, European/Pakeha.

¹⁴ Asia is a broad categorization for people from Asian, including SE Asia and India. Some programmes separate some of the Asia categories out, but others do not.

¹⁵ Pasifika is also identified as Pacific Islander or Pacific and relates collectively to those from the Pacific Islands.

¹⁶ This is a group of various ethnicities all combined in different ways in the programmed data. Included is African, Middle Eastern, European, and the Americas.



Figure 2. Annual numbers of graduates by ethnic group 2009 to 2018.

Almost one-fifth (18 per cent) of the 1,827 graduates in this group did not declare ethnicity. The analysis is based on the 1,499 who did declare (82 per cent). Unsurprisingly, the largest ethnic group - 48 per cent - consists of graduates variably describing themselves as 'European/Pakeha'. Asian ethnicity is the second largest group, representing 36 per cent of graduates, and reflects the significance of Asia as a major source of international students and migrants to New Zealand. Maori is identified by 9 per cent of graduates compared to being approximately 15 per cent of the total New Zealand population (Stats NZ, 2019), while Pasifika identification constitute 3 per cent of graduates.

A relevant question is the extent to which this ethnic profile may have changed the past decade, and Figure 2 shows ethnic groups by graduating year. This shows the same decline already reported on above in the discussion of Figure 1, consequent to programme restructuring. Ignoring this unusual factor, Figure 2 indicates a number of trends. For the largest group, 'European' ethnicity has remained stable over the period with an increase of only 6 per cent. By contrast, Asian ethnicities have increase by 70 per cent over the past decade. The number of graduates identifying Māori has decreased from 16 in 2009 to 9 in 2018: a percentage decrease of 44 per cent. By contrast, the number of Pasifika increased by 167 per cent from 3 in 2009 to 8 in 2018.

These numbers need to be interpreted with some caution, because of the lack of consistency in how each School records ethnic data and because of the large number of graduates who do not declared an ethnicity. Nevertheless, the data indicates that Māori and Pasifika have relatively small numbers and that for Māori these have declined over the past decade, across the Schools.

4.4. Summary points

In summary, the following key points are highlighted:

- Between 1987 and 2018 there were 4,814 graduates from professional architecture programmes in New Zealand.
- The number of graduates increased from 85 to 226 per year over the survey period, an increase of 165 per cent.
- This increase has not kept pace with New Zealand's population growth, and the number of graduates per 1,000 reduced in the last decade of the Survey.
- The University of Auckland produced just over half of all graduates (51 per cent), and Victoria University of Wellington produced almost one-third (32 per cent). Unitec produced its first graduates in 1998 and has contributed 16 per cent of all graduates.
- Changes to architecture programmes at the three Schools led to a sharp reduction in the number of graduations by graduates in 2009/2010; where student progression is delayed or where students elect to adjust their progression to gain a perceived advantage. This is particularly marked with the change from the professional Bachelors to Masters qualification.
- Graduate ethnicity over the past decade indicates that almost half of all graduates identify as 'European' (40 per cent), 36 per cent as 'Asian', 9 per cent Māori and 4 per cent 'Pacific'. While noting that 18 per cent of graduates did not declare their ethnicity, the percentage of those declaring Māori (at 9 per cent) falls well short of the 15 per cent Māori representation in the New Zealand

population. Moreover, there is an indication of a decline in the number of Māori graduates over the last decade.

 Victoria is dominated by graduates with 'European' ethnicity, while The University of Auckland has the highest proportion of 'Asian' graduates. Unitec has the highest proportion of Maori and Pacific graduates.



5. Registration

This section presents the progression by architecture graduates in the survey to registration as architects in New Zealand.

5.1. Introduction

Many countries have legal requirement over the use of the title "Architect", and to different extents, over the practice of architecture. These controls are directed towards consumers of architectural services to give assurance that the practitioners concerned have the necessary qualifications, training and experience to carry out the work. In New Zealand this is regulated by 'registering' architects who meet set standards and experience and is the equivalent to 'licensing' regimes in North America.

The New Zealand Registered Architects Board (NZRAB), which gains its authority from the Registered Architects Act 2005, controls the registration of architecture practitioners in New Zealand. Under the Act, no one except a New Zealand Registered Architect can use the title "Registered Architect" or describe themselves as an "architect" when providing building design services¹⁷.

In New Zealand, architecture programmes are accredited through the Architects Accreditation Council of Australia (AACA). This is a peer review process accrediting programmes that are assessed against prescribed standards every five years by an independent Accreditation Review Panel¹⁸. This also enables the mutual recognition of architecture qualifications across all Australian States and Territories and New Zealand, and, as part of the agreement, Singapore and Hong Kong are now included¹⁹.

Noting that this number is dynamic, at the time of Survey there were 2,347 Registered Architects in New Zealand, of whom 2,038 were 'active' and 309 granted Voluntary Suspension. Voluntary Suspension may happen for reasons that typically include working overseas, raising a family, redundancy or health reasons, and is valid initially for five years²⁰. The overall number of Registered Architects in New Zealand increased from 1,824 at the time of the Second Survey in 2009 - a 29 per cent increase (Haarhoff, 2010, p.18). Registered Architects in New Zealand include practitioners who have recognised qualifications from a New Zealand School of Architecture, through the Trans-Tasman Mutual Recognition Act (1997) those who hold registration in an Australian State, and graduates from other countries across the world who have met the registration requirements.

In New Zealand (2018) the 2,347 registered architects equate to a ratio of 0.48 per 1,000 people. This compares favourably with Australia, where this is estimated at 0.5 per 1,000 people, and is similar to the United

¹⁷ See: <u>https://www.nzrab.nz/</u>.

¹⁸ See: <u>https://www.aaca.org.au/accreditation-of-architecture-programs/</u>.

¹⁹ Ibid.

²⁰ See: <u>https://www.nzrab.nz/c/Accreditation</u>.

Kingdom and France (Architects Accreditation Council of Australia, 2014). However, of particular interest in this report is what proportion of the 4,814 graduates, all of whom hold recognised qualifications for the purposes of registration in New Zealand, are registered as architects by the NZRAB.

5.2. Graduates 1987–2018 and registration

As explained, the methodology involves comparing the list of graduates over the survey period with the NZRAB register. All graduates who held registration up to and including 2008 were identified in the register. This information is set out in Table 3 and shows the total number of graduates by graduating year, and the number and per cent who were registered.

One of the requirements for registration by the NZRAB is completing a recognised qualification from a New Zealand School. All 4,814 graduates in this Survey hold such qualifications: the Bachelor of Architecture, and, since 2009-2010, the Master of Architecture (Professional), and other degree combinations that include professional architecture studies²¹.

Following graduation, there are a number of pathways towards registration as an Architect by the NZRAB. For graduates of accredited programmes, this normally requires a minimum of between 140 and 260 weeks of postgraduation practical experience, with a specified proportion being with a Registered Architect, before making application. The minimum period between the completion of the qualification and registration is consequently between 2.5 and 5 years. This requirement for experience explains why there are no and, in some years, very few registered architects, among the last three-year cohorts (2016-2018) as shown in the shaded cells of Table 4.

Of the 4,814 graduates completing gualifications between 1987 and 2018, 1,023 were registered architects in New Zealand (21 per cent of all architecture graduates). This obviously excludes graduates who may be registered in other countries. However, given the requirement for experience before making applications, this percentage needs to be calculated by only considering graduates who are eligible to seek registration. Taking this into account and excluding graduates from 2016-2018, 4,188 graduates remain eligible to seek registration. On this basis, the 1,023 graduates who were registered represents 24 per cent - almost a quarter of all eligible graduates. Surprisingly, this is a reduced proportion when compared to the First Survey in 1999 (when this was 30 per cent of 1,459 graduates) and equal to the percentage found in the Second Survey in 2009 (24 per cent). This level of registration among eligible architecture graduates compares favourably with other studies - based on graduates between 1999 and 2011 in South Australia, the percentage was 26 per cent (Matthewson, 2016).



²¹ The full list of New Zealand qualifications currently recognised by the NZ Registration Board for the purposes and making application for registration are: *The University of Auckland* – MArch(Prof), MArch(Prof) HerCons, MArch(Prof)UrbDes, MArch(Prof)UrbPlan, BArch (5 year - historic). *Unitec Auckland* – MArch(Prof), BArch (5 year - historic). Victoria University of Wellington – MArch(Prof), BArch (5 year historic).

Year	Graduates	Registered	% Registered
1987	85	26	31
1988	97	31	32
1989	90	37	41
1990	98	38	39
1991	98	39	40
1992	132	54	41
1993	125	46	37
1994	135	44	33
1995	128	50	39
1996	123	44	36
1997	91	26	29
1998	128	47	37
1999	160	44	28
2000	135	37	27
2001	158	45	28
2002	140	51	36
2003	161	45	28
2004	161	30	19
2005	158	37	23
2006	187	37	20
2007	159	35	22
2008	238	48	20
2009	151	21	14
2010	86	11	13
2011	225	35	16
2012	195	24	12
2013	174	21	12
2014	197	15	8
2015	173	4	2
2016	201	1	0
2017	199	0	0
2018	226	0	0
Totals	4,814	1,023	21

5. Registration

Table 4. Number of graduates by cohort year and the number and percentage who are Registered Architects.



Figure 3. Total number of graduates 1987-2018, and the number from each graduating year cohort who were registered at the end of 2018.

This underpins the growing suggestion of there being a perceived ceiling on the proportion of graduates who go on to register as architects – at around one-quarter of all graduates. One explanation for this relative low proportion of conversion to registrations is that some graduates move to other countries to pursue careers.

More significant is the fact that graduates included a growing cohort of international students who do not, or due to visa restrictions, are unable to seek registration in New Zealand. However, compared to Australia, the proportion of international students enrolled in New Zealand universities is comparatively low at 11 per cent (Architects Accreditation Council of Australia, 2019). Making an assumption that 11 per cent of all graduates in the Survey are international students, still only brings to percentage of remaining domestic graduates to 27 per cent of the total, and this still leaves a large number who have never registered as an architect in New Zealand.

This factor is emphasised when comparing the total number of graduates with the number of those registered in New Zealand.

Figure 3 shows that despite the steady increase in graduate numbers over the 32-year period (1987-2018), the number of registered architects from each graduating cohort remains fairly constant. This is an average of 35 registrations per year, compared to an average of 145 graduates per year. Despite graduates numbers increasing year by year, the number being registered remains much the same.





Figure 4. Percentage of each graduating cohort registered at the time of Survey (n=1,019).

5.3. Progression towards registration in New Zealand

As pointed out, registration requires a minimum of between 140 and 260 weeks work experience before making application for registration with the NZRAB and excludes the most recent graduates (2016 to 2018). Consequently, there is a reasonable expectation for registrations to jump once graduates become eligible to apply for registration following the required work experience period. Figure 4 tracks the percentage of each graduating year cohort who were registered at the time of Survey. This shows that tracking backwards from 2016 to 2011 only 17 per cent of eligible graduates had registered. What Figure 4 also indicates is a steady the percentage registration increase in progressively from the most recent graduates back to 1989 when 41 per cent of the year cohorts were registered. The falloff beyond this point may reflect retirements or voluntary suspensions. This suggests a pattern for registration that is proportional to the increase of time from graduation. This may result from pressures at certain career points, such as that of securing promotions within organisations and practices. This pattern is consistent with the findings of the previous Survey (Haarhoff, 2010). Nevertheless, as can be seen in Figure 4, the percentage of graduates who register plateaus out at around 40 per cent of graduates for the earliest graduating cohorts.



Figure 5. Frequency distribution, by percentage, of the number of years between graduation and registration (n=1,019).

5.4. The 'gap' between graduation and registration

The work experience period required by the NZRAB is between 2.5 and 5 years (140 to 260 weeks) before applying for registration. However, the median time between graduation and registration among the relevant graduates in the Survey is 6 years. This indicates that most of those who register do so closer to, and beyond, the 5-year period, rather than in minimum time. Figure 5 shows the frequency distribution of the number of years between the completion of the qualification and registration for graduates who were Registered Architects in 2018.

Only 13 per cent of graduates were registered within 2 to 3 years (the minimum) and 44 per cent registered within 5 years. This leaves well over half of graduates (56 per cent) who were registered with a 'gap' of over 6 years. Indeed, there is a long 'tail' stretching back to over 20 years between completing the qualification and registration.

This shows that just over half of graduates who were registered at the time of Survey, did so within the 140 to 240 week time range. This underscores the observation already made that for many graduates there is no apparent rush to register, and that registration will be pursued at varying points of times according to individual needs, such as changing work situations, establishing small practices on their own account, or seeking promotions.

5.5. Regional distribution of graduates

The NZRAB register invites Registered Architects to provide their address or practice location in a publically accessible website, and among the 1,023 graduates who were registered at the time of Survey, 767 (75 per cent) did so.





Figure 6. Percentage distribution of graduates who report their practice location by NZIA Regions (n=754).

Figure 6 shows the distribution of locations by Regions: in the North Island (Auckland, Wellington, Waikato/Bay of Plenty and Gisborne/Hawkes Bay) and in the South Island (Canterbury, Southern, Western and Nelson/Marlborough). Thirteen (2 per cent) gave locations outside of New Zealand and none were given for the Western District. Excluding overseas addresses, there were 741 graduates who identified their locations in one of the New Zealand regions.

As the region that includes the largest city of Auckland, it is not a surprise to find that just over half (52 per cent) of the registered graduates who gave addresses located in the Auckland Region (that includes Northland). Wellington is second in terms of ranking (22 per cent) and Canterbury third with 10 per cent²². These three regions include New Zealand's three largest cities and together account for 84 per cent of the locations of registered graduates in this Survey. In terms of geographically spread, the North Island (Te Ika A Maui) accounts for 82 per cent of the locations and the South Islands (Te Wai Pounamu) for 18 per cent²³. The two regions that have the largest and second largest combined percentage of reported locations (74 per cent), Auckland and Wellington, are also the locations of two of the Schools of Architecture providing the architecture programmes: The University of Auckland and Unitec in Auckland, and Victoria University of Wellington.

²² Statistics New Zealand Occupation Survey gives the percentage distribution of the self-declared standard classification of occupation of 'Architect' by region as follows: Auckland and Northland: 47.5%; Wellington and Manawatu:

^{20.6%;} and Canterbury: 13.6%. Distribution close to the registered graduate distributions. See: https://www.stats.govt.nz/2018-census/

²³ Statistics New Zealand Occupation Survey gives the percentage distribution of the self-declared standard classification of occupation of 'Architect' for the North Island (78%) and South Island (22%). Distributions are close to the data on registered graduate distributions. See: https://www.stats.govt.nz/2018-census/.



Figure 7. Percentage distribution of reporting graduates in each region by graduating programme source (n=754).

At the time of the Survey there were no professional architecture programmes offered in the South Island. This raised a question about how registered graduates who complete their degree at one of these Schools, subsequently are distributed between the regions, and this is shown in Figure 7, that shows a distribution of graduates from the three Schools by their reported locations.

As can be seen, graduates from the Aucklandbased programmes (at The University of Auckland and Unitec), largely go on to work in the Auckland regions. This is particularly high for Unitec graduates who were registered: 87 per cent are located in the Auckland region. In descending order, the remaining Unitec graduates who were registered report working in equal proportions in Waikato and in the Southern region that includes Dunedin and Queenstown (4 per cent). Very small percentages report locations in the Wellington region. Of the registered graduates from The University of Auckland, 69 per cent work in the Auckland region, with the balance distributed in small percentages between Wellington (6 per cent), Waikato/BOP (7 per cent), Canterbury (8 per cent) and Southern (5 per cent).

As may be expected, registered graduates from Victoria University dominate those working in the Wellington region (49 per cent). A presence is also found elsewhere in the North Island: Auckland (15 per cent) and Waikato/BOP (6 per cent). There is also a significant presence in South Island Regions: Canterbury (16 per cent), Southern (7 per cent), and Nelson/Marlborough (3 per cent).
This distribution presents few surprises: that most graduates who were registered from the two Auckland Schools go on to work in the Auckland region and most graduates who were registered from Victoria University go on to work in Wellington. However, VUW graduates have a larger presence in the South Island regions. Of the registered graduates working overseas, The University of Auckland has 54 per cent of the total, Victoria University has 38 per cent and Unitec has 8 per cent. Also of interest is that not a single registered graduate reported working in the Western district that comprises the West Coast of the South Island. This is not surprising given its relatively small population and economic base when compared with the rest of New Zealand²⁴.

5.6. Summary points

In summary, the following key points are highlighted:

- There were 2,347 registered architects in New Zealand at the time of Survey (2018); this equates to 0.48 registered architects per 1,000 people. This compares favourably with Australia where this is estimated to be 0.5 per 1,000 people, and similar to the United Kingdom and France.
- Of the 2,347 Registered Architects 44 per cent have origin from among the 4,814 graduates in this Survey.
- Given that registration requires between 140 and 260 weeks of work experience before an

application for registration can be made, the three most recent graduating cohorts will not be eligible to apply. Excluding these three cohorts, 24 per cent of the total eligible number of graduates in the Survey were Registered Architects in 2018.

- The high proportion of graduates who do not register can be partly explained by an increasing number of international students among graduates, who may not seek registration in New Zealand. While the proportions of international students are high in Australia (between 35-45 per cent), this is not the case in New Zealand (around 11 per cent). Even accounting for this factor, this still leaves a large majority of eligible architecture graduates who do not go on to register with the NZRAB.
- The percentage of graduates who are registered has reduced since the First Survey (1999) from 30 per cent to 24 per cent in the subsequent two surveys (2009, 2019). This suggests a ceiling to the proportion of graduates who go on to be registered.
- Among eligible graduates, there is no apparent urgency to be registered. Although most would have been eligible to be registered, only 13 per cent of graduates were registered within 2 to 3 years (the minimum) and 44 per cent registered within 5 years (the upper range). More than half of graduates who were registered in 2018, did so beyond the 6 year 'gap', to includes some from the from the 1880's.
- Among graduates who were registered and declared their location, the Auckland Region is where just over half of all registered graduates practice (52 per cent), followed by

²⁴ See: <u>http://archive.stats.govt.nz/Census/2013-census/profile-and-summary-reports/quickstats-about-a-place.aspx?request_value=14641&tabname=.</u>

Wellington (22 per cent) and Canterbury (10 per cent).

 Most registered graduates from The University of Auckland and Unitec gave their practice location as the Auckland Region. For registered graduates from Victoria University, Wellington dominates as their practice location. Victoria University contributes the majority of registered graduates located in the South Island.



6. Professional membership

This section discusses the progression of architecture graduates to professional membership of the New Zealand Institute of Architects (NZIA).

6.1. Membership categories

Established in 1905 as an incorporated society, the NZIA's primary role is that of being a professional organisation for architects. On behalf of members, the NZIA extends its role to "promoting and celebrating outstanding architecture and to creating greater awareness of the values and benefits well designed buildings and public spaces can bring to our cities and towns" (New Zealand Institute of Architect, n.d.-b). The NZIA offers professional memberships in a number of categories and these are listed and defined Table 5.

As discussed in the Methodology (chapter 3), to avoid confusion, between 'graduates' of concern in this Survey and the NZIA 'Student' and 'Graduate' membership categories, 'graduates' refers to all graduates from the New Zealand Schools between 1987 and 2018, while the 'NZIA Student' and 'NZIA Graduate' refer to those graduates who are members of the NZIA at the time of the Survey at the end of 2018.

The NZIA reported having 4,216 Members at the end of 2018, of which 209 were Retired Members. The 4,007 'active' Members by category as of the end of 2018 is given in Table 6. Architect members²⁵ are the largest category (48 per cent), all of who will also be Registered Architects. Surprisingly, NZIA Student members are the second largest category (29 per cent), followed by NZIA Graduate members (14 per cent). Student membership signals, on the part of those concerned, an intention to engage with formal practice, as do the NZIA Graduate members who will be participating in development programmes offered by the NZIA.

Many NZIA Graduate and Student members are also employed by architecture practices and, together with Affiliated and Allied Members, constitute a significant part of the workforce engaged with the active practice of architecture in New Zealand. Table 6 shows that almost half are Architect members (all of whom will be registered) and that, collectively, all other membership categories make up the other half.

²⁵ This combines a number of sub-categories: Architect, Architect Fellow, Architect Overseas and Architect with overseas registration.

Category	Summary attributes
Architect	 Any person who: a. is a New Zealand or Australian Registered Architect; or b. is an APEC Architect; or c. any NZ degree qualified architect who holds registration overseas and is working overseas; or d. any Architect who is registered in an overseas jurisdiction and is working in an NZIA Practice.
Graduate	 Any person who: a. holds a degree diploma or certificate recognised by the NZIA Council as being acceptable for registration as an architect by the Council; or b. holds an NZRAB or AERB equivalency assessment as a step towards registration as an architect by the Council; or c. is a participating in the Institute's Registration Programme.
Student	Any person who is a student participating in an architecture or architecture related course, the completion of which entitles that person to gain a degree, diploma, or certificate recognised by the NZIA Council as being acceptable for Architect membership.
Academic	Any person who is an educator of architecture in a recognised teaching institution and teaching an architecture or architecture related course, the completion of which entitles the student to gain a degree, diploma or certificate recognised by the Council as being acceptable for member of the Institute.
Affiliated	 Any person who: a. is not a registered architect but who is an employee of an NZIA Practice; or b. is a registered architect in a jurisdiction other than New Zealand and is approved by the NZIA Council as being accepted for Affiliated Membership; or c. is working in an allied profession such as urban design, building science, architectural studies, or landscape architecture; or d. shares an interest of the Institute and is approved by the NZIA Council as being accepted for Affiliated Membership.
Allied Professionals	Architecture graduates of more than 6 years' standing.
Retired	Any person who is an Architect Member or Academic Member who has retired from architectural practice, related activity or teaching appointment in architecture and has applied to and been approved by the NZIA Council for retired membership.

Table 5. NZIA categories of membership (Source: New Zealand Institute of Architects).

Table 6. Numbers of NZIA members by category (end of 2018) (Source: New Zealand Institute of Architects).

Active Membership Categories	Number	%
Architect/Arch Fellow	1,905	48
NZIA Student	1,148	29
NZIA Graduate	567	14
Affiliated	207	5
Allied Professional	158	4
Academic	22	1
Tot	4,007	100



Membership Category	Total NZIA membership, 2018	Graduates 1987-2018	Graduates as a percentage of total membership, 2018
Architect/Architect Fellow	1,905	986	52
NZIA Student	1148	303	26
NZIA Graduate	567	426	75
Affiliated	207	67	32
Allied Professionals	158	109	69
Academic	22	8	36
Tot	4,007	1,899	47

Table 7. NZIA active membership compared to membership among the surveyed graduates (2018).



Figure 8. Comparison of NZIA membership numbers by category with membership derived from among the graduates in the Survey (n=1,705).

Table 8. Comparison of total NZIA Membership numbers across the three surveys.

Survey	Date	Total number of graduates	NZIA Memberships among graduates concerned	%
First	1999	1,459	657	45
Second	2008	2,983	1,186	40
Third	2018	4,814	1,899	40

6.2. Membership among the graduates: 1987-2018

Of the 4,814 architecture graduates completing qualifications between 1987 to 2018, 1,899 (47 per cent) are members of the NZIA across the various categories. This shows that over half (53 per cent) of the 4,814 graduates were not members of the NZIA at the end of 2018.

Table 7 sets out the total NZIA membership in2018 in all active categories (excludingretirements) and membership numbers amongthe 4,814 graduates.

Architect members at 986 are the largest group sourced from the graduates surveyed (52 per cent of the total membership in this category). Also significant are the 426 NZIA Graduate members and 109 Allied Professional members who respectively contribute 75 and 69 per cent of Members to these categories. It may seem surprising to see Student members in this survey of graduates (26 per cent of the total membership), but they will be members who, at the time of survey, had not changed to another more appropriate membership category. The relationships between total NZIA membership numbers in various categories and the proportion sourced from among the 4,814 graduates in the Survey are graphically shown in Figure 8.

Direct comparisons by membership categories with the two previous surveys is difficult, because over time, the NZIA has changed membership categories. Architect Membership is consistent, but Colleague Membership in the First Survey (1999) was abandoned, and now includes the more numerous categories listed in Table 5. Table 8 compares all memberships of the NZIA among graduates at the three Survey dates.

This shows that graduates in the Survey holding membership with the NZIA declined from the First Survey to the Second Survey, from 45 per cent in 1999 to 40 per cent in 2008. However, the percentage has stabilised at 40 per cent between the Second and Third surveys. This can be compared to 27 per cent of the same graduate group who were registered at the same time.

Attention has been drawn to the fact that among the 4,814 graduates between 1987 and 2018, just over half were not members of the NZIA at the time of Survey (2018) nor registered with the NZRAB. This raises question about who this group is constituted of.

6.3. Accounting for the 'missing' graduates

We have identified that only 24 per cent of eligible graduates in the Survey progressed to be Registered Architects and that this proportion remained unchanged from the previous Survey. The data also shows that 40 per cent of graduates in this Survey are members of the NZIA. Given the competitiveness to gain entry to architecture programmes, programme enrolments caps, the length of study (5 years) and the associated expenses, it is surprising to discover that so few architectural graduates progress to formal practice in New Zealand.

The data provides no information on what the 60 per cent of graduates not engaged in formal



practice is doing. On this question, it is instructive to compare NZIA membership with those who self-declare their occupation as 'architect' in the 2018 census. Using the and New Zealand Standard Australia Classification of Occupational categories, 6,453 people identified 'architect' as their primary occupation (Stats NZ, 2020). This excludes a further 2,082 who identified their occupation as 'architectural draftsperson', and 423 ลร 'Architectural Technicians'. At this level, those declaring their occupation to be 'architect' far exceeds the 2,347 NZRAB registered architects and the 1,905 NZIA Architect Members in 2018. All NZIA membership categories in 2018 total of 4,007 and, while this comes closer to the census number, there is still a shortfall. This may indicate that those who hold professional architecture gualifications, may identify their occupation as architect, while engaged in employment outside of formal profession. It also strongly suggests that many claim 'architect' to be their occupation in the census. In addition, as membership to the NZIA is not mandatory, some recent graduates may not consider it to be relevant or necessary in that point of their career, as they might be still finding their position within the profession or waiting for different career opportunities, possibly overseas, and some less recent graduates might be satisfied with a role that doesn't necessarily benefits from said membership.

We also know that some graduates travel overseas after graduation, while others will seek employment in other countries. In our discussion on Registration (chapter 5), we have already noted that part of the 'missing' graduates will be accounted for when considering international students (Architects Accreditation Council of Australia, 2019). Another explanation is that many architecture graduates simply do not progress to occupations in architecture but move into other career options. Noting a similar situation in Australia, the AACA Report (2019) makes the following observation:

> There are many pathways for architectural graduates within and beyond traditional practice. Little research has been undertaken about the career paths of graduates of Australian and New Zealand schools, so there is little detailed data on graduate destinations. Anecdotally, many architectural graduates pursue careers outside traditional practice but related to architecture and the built while Australian environment. registration data suggests fewer than half of architectural masters graduates will go on to be registered architects (excluding those overseas students who return country of to their origin). (Architects Accreditation Council of Australia, 2019, p.93)

We concur with the AACA (2019) that there is very little information on overall graduate destinations. The fact that we cannot account for the career destination of over half of the architecture graduates from New Zealand Schools, certainly marks an area for further research that should be of interest to both educators and the profession.

6.4. NZIA membership and engagement with practice

Of the 4,814 graduates from the period 1987 to 2018 inclusive. 1.899 were members of the NZIA of various types at the end of 2018 (see Table 7) - 39 per cent of the total. Figure 9 graphically shows NZIA membership numbers for the following categories: Affiliate, NZIA Student, NZIA Graduate. Architect and Allied Professions. Excluded is Academic where the number is small (8 members and reduces the total NZIA membership to 1,891). Overall, NZIA membership among graduates in the Survey increases from 26 for 1987 to 108 in 2018 (totals shown by the dashed line). Of significance is the large presence of NZIA Student and NZIA Graduate members among the more recent graduating cohort years, where they outnumber Architect members. Also evident is an on-going presence Affiliate Allied Professional of and memberships. in parallel with Architect members stretching back to the 1988 cohort. As it would be expected, NZIA Student membership is strong in the three most recent graduating cohort years and then declines. Those who have completed their qualification but, where relevant, not yet transferred to a more appropriate membership category are account for in the NZIA Graduate category. NZIA Graduate membership is high over the 5 most recent graduating cohorts (2012-2018), but significant here is a 'tail' that stretches back to the earlier graduating cohorts. This indicates that a reasonable number of graduates from the Schools maintain their NZIA Graduate membership for long periods of time, and do not convert to Architect membership.



Figure 9. Distribution of the number of NZIA Affiliate, Student, Graduate, Architects and Allied Professional Membership by year cohort 1987-2018 (n=1,891). Note: the figure excludes Academics (8 members).





Figure 10. Percentage distribution of NZIA Affiliate, Student, Graduate, Architects and Allied Professional Membership by year cohort 1987–2018 (n=1,891).

Figure 10 shows the distribution of NZIA membership categories by graduating cohort, except her expressed in terms of a percentage of each membership type by year. As it can be seen, Architect members dominate as a proportion of other membership categories from 2012 back to the start of the Survey in 1987 (where 96 per cent of graduates in this year hold NZIA Architect membership). However, the significance of NZIA Students and NZIA Graduate membership is clearly highlighted over more recent graduating cohorts (2012 to 2018), where they collectively constitute the majority of NZIA memberships among the graduates in the Survey. In part, this is related to the need to gain at least three years of work experience before applying for registration and becoming eligible for NZIA Architect membership. Both NZIA Students and NZIA Graduate membership 'tail off' as Architect membership 'kicks in'. Also evident in Figure 10 are the proportions of other membership categories, especially Allied Professional and Affiliates that persist back to 1987. These provide categories of membership for those not registered, and thus not moving to NZIA Architect Membership, but who constitute a part of the overall workforce in formal practice.



Figure 11. Distribution of numbers by graduating cohort years for NZIA Architects and NZRAB (n=1,642).

6.5. Registered Architects and NZIA Architect membership.

The comparative relationship of NZIA Architects and NZRAB registered architects to a combination of NZIA Student, NZIA Graduate, Allied Professional and Affiliate memberships is demonstrated in Figure 11 (the 'non-Architect' categories).

This serves to emphasise the role played by non-Architect Members of the NZIA in the more recent graduating years. Architect membership does not suddenly increase after three years, reflecting the median gap between degree completion and registration of six years. As it can been seen, the combined memberships excluding Architect dominates over the most recent graduating cohorts, but also remains present back to the earliest graduating cohorts.

Figure 11 also compares the numbers among the graduating cohorts NZIA Architect membership and NZRAB Registered Architects. Although the numbers are close for each year cohort, Registered Architects exceeds the number of NZIA Architect members. This is because those registered by the NZRAB are not required to be members of the NZIA. At the end of 2018, there are 1,019 NZRAB Registered Architects and 986 NZIA Architect members among the 4,814 graduates from the three Schools between 1987-2018. This indicates that, among the graduating cohorts, 33 (3 per cent), while registered, are not members of the NZIA. This percentage has decreased since the Second Survey, when this stood at 15 per cent (Haarhoff, 2010, p.26-27).

What has also changed since the Second Survey is the percentage of Architect members on Voluntary Suspension. In 2009 this was 17 per cent among the graduating cohorts, but this reduces to 4.5 per cent in 2019. Speculated that this relates to a relatively higher level of economic activity in the construction sector at the time of this Survey (2018), when compared with 2009.

6.6. Summary points

In summary, the following key points are highlighted:

- In 2018 there were 4,916 members of the NZIA across all membership categories. Retired members numbered 209, with 4,007 'active' members in the Architect, NZIA Student, NZIA Graduate, Affiliated, Allied Professionals and Academic categories.
- Almost half (47 per cent) are Architect members (who will also be Registered Architects).
- Significantly, the second and third largest categories of membership are Graduate (75 per cent) and Student (26 per cent), together constituting 38 per cent of NZIA memberships among the graduates. With Affiliates, Allied Professionals and Academic non-Architect categories, members constitute almost half the NZIA of memberships among the graduates.
- Of the 4,814 graduates in the Survey, 1,899 are NZIA members and they represent 40 per cent of all graduates in the Survey (compared to 24 per cent of eligible graduates who are Registered Architects). This percentage has remained constant between the Second and Third surveys.
- Through their members of the NZIA, non-Architect members contribute towards the architecture practice workforce.

 Architect members (and thus Registered Architects) appear to plateau at around 40 per of graduates in the Survey, irrespective of the increasing number of architect graduates produced.



7. Women and Architecture

This section focuses on how the data tells a story about women among the architecture graduates between 1987-2018.

7.1. Women and the profession of Architecture

An analysis of the NZRAB register at the end of 2018 gave the number of registered architects in New Zealand as 2,038. Of these, 25 per cent were women, close to the 24 per cent reported by Kathlyn Loseby (2019) for Australia. Moreover, the percentage of women who are registered in New Zealand has increased over the past three decades, as revealed in the previous two surveys (Haarhoff, 2001; Haarhoff, 2010): 10 per cent in 1999, 18 per cent in 2010, and now 25 per cent.

We have reported on the 2018 Census Occupation Survey, but this does not show gender distribution. This was given for the 2013 census²⁶, where women represented 21 per cent of those identifying 'architect' as their occupation. In Australia those nominating their occupation as 'architect' in their 2016 census were 31 per cent (Matthewson, 2018). This suggests that women in New Zealand account for around a quarter of those registered as architects and those self-declaring 'architect' as an occupation in New Zealand.

Registration can be contrasted with NZIA membership: among the 4,007 active members

of the NZIA in 2018, women constituted 35 per cent across all membership categories. This can be compared to the reported 29 per cent women who are members of the Australian Institute of Architects (AIA). By this measure the NZIA is doing better, but what is not clear is whether the Australian figures include the same categories of membership. Where there are marked difference, however, is when gender is considered by NZIA membership categories. As can be seen in Table 9. whereas women NZIA Graduate, NZIA Student, Allied Professional and Affiliated members constitute 52, 51, 45 and 40 per cent respectively of the total, this falls to 30 per cent for the Architect category where registration with the NZRAB is required.

The gender disparity in part comes from the profession's history of being male dominated, reflected by the fact that 87 per cent of retired members are men. However, the larger questions concern the representation of women among graduates from the Schools of and their Architecture in this Survey, registration and membership of the professional organisation, and these are considered in the next section.

²⁶ While data is available from the 2018 census, this does not give gender information.

Table 9. Gender distribution of NZIA membership by category (2018). (Source: New Zealand Institute of Architects). Note: Percentages as given in the 2018 NZIA Annual Report do not all total 100 per cent because of non-specified gender.

Membership category	Per cent Male	Per cent Female
Architect	69.5	30.0
Graduate	46.5	52.0
Student	49.0	51.0
Allied Professional	55.0	45.0
Affiliated	60.0	39.5
Retired	87.0	13.0
Academic	65.0	35.0

7.2. Women among the architecture graduates 1987–2018.

Table 10 gives the total number of graduates by year between 1987 and 2018, and the number and percentage of men and women in each graduating year.

Overall, Table 10 shows that among the 4,814 graduates in the Survey, 42 per cent have been women. However, over the past decade gender equity has been reached among graduates from architecture programmes in New Zealand, with women comprising 49 per cent of graduates on average over the period 2009-2018. These gender changes are more pronounced when considering the percentage of women in each graduating year, and this is shown in Figure 12.

This shows the changing proportion of women and men in each graduating cohort. There is a clear convergence toward gender equity from 1987, when women constituted 20 per cent of graduates, to 2006, when parity with men was first reached. Although there are annual variations, on average since 2006, gender equity has been sustained. In 2018, the end of the Survey period, women comprised 54 per cent of graduates.

This is consistent with data from Australia – the AACA (2019) reports that, by the mid-1990's, 42 per cent of graduates from Australian architecture programmes were women, and that this has averaged 45 per cent for the last decade. Table 11 shows the average percentage of women graduating from architecture programmes in New Zealand over the threedecade periods: 1989-1998, 1999-2008 and 2009-2018. This has changed from women being onethird of graduates in the decade ending in 1998, to a half in 2018.

Gender equity among professional architecture graduates has largely been driven by increases in the numbers of women participating in architecture programmes and, consequently, graduating. Figure 13. Number of male and female graduates, and the total by year: 1987 to 2018. shows the numbers of men and women graduating by year over the Survey period.



Year	Male number	Female number	Total number	% Male	% Female
1987	68	17	85	80	20
1988	70	27	97	72	28
1989	73	17	90	81	19
1990	65	33	98	66	34
1991	70	28	98	71	29
1992	89	43	132	67	33
1993	84	41	125	67	33
1994	91	44	136	67	33
1995	87	41	128	68	32
1996	83	40	123	67	33
1997	53	38	91	58	42
1998	80	48	129	62	38
1999	99	61	161	62	38
2000	90	44	134	67	33
2001	97	61	158	61	39
2002	80	60	140	57	43
2003	86	75	161	53	47
2004	93	68	161	58	42
2005	94	64	158	59	41
2006	92	95	187	49	51
2007	80	79	159	50	50
2008	144	94	241	61	39
2009	83	68	154	55	45
2010	49	37	86	57	43
2011	110	115	225	49	51
2012	94	102	196	48	52
2013	105	69	174	60	40
2014	103	94	197	52	48
2015	76	97	173	44	56
2016	112	89	201	56	44
2017	99	100	199	50	50
2018	104	122	226	46	54
Totals	2,808	2,011	4,814	(58%)	(42%)

Table 10. Number and percentage of male and female graduates by year: 1987 to 2018.



Figure 12. Percentage of male and female graduates in each graduating cohort 1987 to 2018. (n=4814).

Decade	% Women	% Men
1989–1998	33	67
1999–2008	42	58
2009-2018	49	51





Figure 13. Number of male and female graduates, and the total by year: 1987 to 2018.





Figure 14. Percentage of female graduates in each graduating cohort from 1987 to 2018 by Architecture School.

This shows the growth in total architecture graduate numbers over the survey period. More significantly, also shown is that the increase in the number of female graduates has not been accompanied by an increase in the number male graduates. Comparing the numbers for the decades 1999 to 2008 with 2009 to 2018 shows male graduates decreasing from 955 to 953 (2.1 per cent). However, female graduates increased from 701 to 893 between the same two decades, an increase of 27 per cent. Consequently, while the numbers of female graduates have significantly increased over past years, this is not the case among male graduates. The move to gender parity relates to an increasing number of women graduates, while the numbers of male counterparts have plateaued. In the Second Survey terminating in 2008 (Haarhoff, 2010), gender parity had just been reached and it was forecast that this trend would be continued into the decade ahead. The data from this Third Survey confirms that this forecast trend was achieved. It should be emphasised that, while gender parity with men has been achieved, this is not necessarily a target. There is no reason why the percentage of women should not be greater than 50 per cent.

Figure 14 shows the percentage of women in each graduating year cohort by School, compared to the overall average. All three Schools indicate the same overall trend of an increasing proportion of women in graduating years since 1987. The University of Auckland and Victoria University of Wellington have graduates over the full 32-year period. The first graduates from Unitec in 1998 have female percentages at this time similar to the other two Schools, and the trajectory follows a similar pattern.

Overall, over the past decade (2009 to 2018), the average percentage of women among graduates was 49 per cent. Considering each School, the average percentage of women among graduates over the past decade for The University of Auckland, Victoria University of Wellington and Unitec is 55, 45 and 41 per cent respectively.

7.3. Women registered as Architects

We have established that among the 4,814 graduates in the Survey, overall only 1,022 (21 per cent) were registered architects with the New Zealand Registered Architects Board. Discounting those graduates who at the time of Survey were not eligible to apply for registration, increases this to 24 per cent.

Table 12 gives the number and percentage of registered by the NZRAB and, for each year cohort, the number and percentage of men and women who were registered at the time of the Survey. This provides a perspective of change over time. Over the five-year period 1987 to 1991, 26 per cent of graduates were women and 22 per cent of this female group was registered in 2019. This can be compared with the most recent five years during which graduates were eligible to apply for registration (2011-2015). Over this period, the percentage of women was 50 per cent, but only 10 per cent were registered. This needs to be interpreted with care because, as we have argued, there appears to be no particular urgency for graduates to register once becoming eligible, whether male or female. Notwithstanding, in this last five-year period, while 10 per cent of eligible women graduates were registered, for men this was slightly higher at 14 per cent.

Figure 15 shows the numbers of men and women registering by year cohort graphically. The number of women and men registering among the most recent eligible year cohorts indicates that men and women are registering at more or less the same rate. However, there is a gender divergence moving to the earlier graduating cohorts: the numbers of men registered increases steadily, while for women this appears to plateau. This suggests that, while more and more men are registering over time, this is not the case for women graduates.

Beyond numbers, of more interest is to consider changes over time in the percentages of women in each graduating cohort who are registered. Overall, of the 1,023 graduates over the survey period who were registered, 73 per cent were men, and 27 per cent women. This can be compared to gender distributions among graduates over the same period: 58 per cent are male and 42 per cent female. In other words, although women constitute 42 per cent of all graduates, only 28 per cent overall were registered at the time of survey.

Figure 16 graphically shows the percentage of males and females in each graduating cohort who at the time of survey (end of 2018) were registered architects.

The percentage of women graduates who go on to registration has increased over the 32-year survey period, from slightly more than 10 per cent in 1987, to have approximate parity with men at around 50 per cent over more recent years. In part this is driven by the increased number of women among graduates over the period and supports Gill Matthewson's (2016) contention "women are an increasingly important proportion of registered architects".



Table 12. Total number	graduates by graduat	ing year coho	rt, those registe	tered and the	percentage, a	and of those
registered, the number	and percentage of ma	ales and fema	es.			

Year	Tot	Tot	% registered	No. males	% males	No. females	% females
	graduates	registered		registered	registered	registered	registered
1987	85	26	31	23	88	3	12
1988	97	31	32	28	90	3	10
1989	90	37	41	33	89	4	11
1990	98	38	39	33	87	5	13
1991	98	39	40	27	69	12	31
1992	132	54	41	43	80	11	20
1993	125	46	37	35	76	11	24
1994	135	44	33	37	84	7	16
1995	128	50	39	40	80	10	20
1996	123	44	36	30	68	14	32
1997	91	26	29	17	65	9	35
1998	128	47	37	34	72	13	28
1999	160	44	28	30	68	14	32
2000	135	37	27	27	73	10	27
2001	158	45	28	31	69	14	31
2002	140	51	36	35	69	16	31
2003	161	45	28	27	60	18	40
2004	161	30	19	24	80	6	20
2005	158	37	23	29	78	8	22
2006	187	37	20	29	78	8	22
2007	159	35	22	16	46	19	54
2008	238	48	20	36	75	12	25
2009	151	21	14	15	71	6	29
2010	86	11	13	7	64	4	36
2011	225	35	16	22	63	13	37
2012	195	24	12	12	50	12	50
2013	174	21	12	16	76	5	24
2014	197	15	8	9	60	6	40
2015	173	4	2	1	25	3	75
2016	201	1	0	1	100	0	0
2017	199	0	0	0	0	0	0
2018	226	0	0	0	0	0	0
Tot	4,814	1,023	21	747	73	276	27



Figure 15. Registration numbers by graduating year cohort, for men, women and the total 1987-2018.



Figure 16. Percentage of males and females who were registered at the time of survey by graduating year (n=1,023).



Despite a move towards equity of registration of men and women, there is considerable inconsistency in the percentages over the years since 2007. The average number of women registered between 2007 and 2018 is 39 per cent, versus 61 per cent for men. At 39 per cent this still falls short of equity with men. This proportion, however, is better when compared to the percentage of women among all of the 2,347 Registered Architects at the time of survey given in Table 12. This provides comparative data from the register of the NZ Registered Architects Board and the data from the graduates in the Survey. It also shows the number and percentage of registered architects who had taken voluntary suspension at the time of survey. In total there were 2.347 registered with the NZRAB, of whom 2,038 were 'active' Registered Architects and 309 on Voluntary Suspension.

Graduates from the Survey constituted half of all Registered Architects in New Zealand (1,023 out of 2,038). When comparing the NZRAB register with registration among the 4,814 graduates, the differences are relatively small. Women represent 25 per cent of all NZRAB Registered Architects compared to 28 per cent among the Graduates.

Graduates from the Survey constitute only 15 per cent of all those on Voluntary Suspension. Perhaps this is not surprising because they are the younger cohorts establishing their careers, while the NZRAB totals will include those nearing retirement ages or established overseas. For the NZRAB total, the Voluntary Suspension proportion for women is similar to that for active Registered Architects: 24 per cent versus 25 per cent respectively. Among graduates, however, the proportion of women is higher, at 43 per cent.

Overall, despite there being close to equal numbers of men and women graduates over the past 15 years from New Zealand architecture Schools, the overall proportion of female Registered Architects is 25 per cent. This percentage has increased from 10 per cent in 1999 and 18 per cent in 2008. This indicates that the proportion of women among registered architects in New Zealand is increasing, although it is still relatively low at 25 per cent.

Alison Arieff (2018) points out that increasing this percentage is not a 'pipeline' problem:

It would seem obvious: if you want more female architects, teach more women to be architects. Other fields where women are underrepresented speak of a pipeline problem, the belief that a lack of diversity stems from a scarcity of available talent. But nearly half of architecture students are women, so why are so few sticking with the industry after graduation? (Arieff, 2018) Table 13. Comparison of all registered Architects with those registered from among the graduates 1987–2018 (all percentages rounded to whole numbers).

		Registered		Volu	Voluntary Suspension				
	Number	mber % Males % Females		Number	% Males	% Females			
NZRAB total	2,038	75	25	309	76	24			
Registered Graduates	1,023	72	28	47	57	43			

The data shows that while there has been close to gender parity among architecture graduates from New Zealand architecture programmes, and while there is a progression towards an increase in the number of women graduates who go on to become registered, this is still far from matched by the proportion of women who go on to register as architects in New Zealand. This conclusion is important in relation to a new joint programme between the NZIA and the Association of Consulting Engineers (ACENZ) that has set a goal of getting 20 per cent more women in engineering and architecture by 2021 (New Zealand Institute of Architects, 2018). In the case of architecture, the issue is not related to education given the gender parity among graduates, but potential obstacles in the registration pathways towards and representation in senior level leadership roles. Also needing consideration is ensuring that women (and men) in practice who are not registered achieve enhanced status that recognises their important role in the workforce and the delivery of architecture services.

7.4. Women as members of the New Zealand Institute of Architects

The New Zealand Institute of Architects had a total 4,007 active members (excluding retired members) at the time of survey (2018), and 35 per cent were women. Of this total membership, 1,899 are among the graduates completing qualifications between 1987-2018, constituting 47 per cent of the total membership in 2018.

Table 14 sets out the NZIA membership at the time of survey among these graduates by membership category and gender for each of the year cohorts. As it can be seen, of the 986 Architect Members (all of whom will also be registered), 256 were women – 26 per cent of this membership category. While this percentage falls well short of equity with men, it is an increase from the Second Survey in 2009 (Haarhoff, 2010) when women in the NZIA Architect category were just 17 per cent.

Women, however, do feature more in other categories of membership. They constitute 52 per cent of NZIA Student memberships and 43 per cent of NZIA Graduate membership. In the Allied Professional and Affiliate categories, women constitute 36 and 33 per cent respectively. There is gender equity among Academic members, but here the numbers are very small. Table 14. Membership of the NZIA, by category, year of graduation and gender, 2008 (Source: New Zealand Institute of Architects).

	Af	filiate	ed	NZIA	A Stud	dent	Gr	NZIA adua	te	Aı	chite	ct	All	ied Pr	rof	Ac	ademi	ic	ıtal
Year	М	F	Total	М	F	Total	М	F	Total	М	F	Total	М	F	Total	М	F	Total	NZIA To
1987	-	-	-	-	-	-	1	-	1	23	3	26	-	-	-	-	-	-	27
1988	2	-	2	-	-	-	-	-	-	27	2	29	-	-	-	1	2	3	34
1989	1	-	1	-	-	-	-	2	2	29	4	33	-	-	-	-	-	-	36
1990	1	-	1	-	-	-	-	-	-	34	3	37	1	-	1	-	-	-	39
1991	-	-	-	-	-	-	1	-	1	25	12	37	-	-	-	1	-	1	39
1992	1	-	1	-	-	-	-	1	1	44	10	54	-	-	-	-	1	1	57
1993	-	-	-	-	-	-	-	-	-	36	9	45	-	1	1	-	-	-	46
1994	1	2	3	-	-	-	1	-	1	39	6	45	1	1	2	1	-	1	52
1995	-	-	-	-	-	-	-	-	-	40	9	49	-	-	-	-	-	-	49
1996	-	1	1	-	-	-	3	-	3	31	10	41	-	-	-	-	-	-	45
1997	1	-	1	-	-	-	2	-	2	16	9	25	-	-	-	-	-	-	28
1998	1	-	1	-	-	-	3	2	5	29	13	42	3	-	3	-	-	-	51
1999	2	2	4	-	-	-	6	1	7	27	13	40	1	1	2	-	1	1	54
2000	-	-	-	-	-	-	4	1	5	26	9	35	3	-	3	-	-	-	43
2001	2	-	2	-	1	1	4	2	6	30	10	40	5	-	5	-	-	-	54
2002	2	-	2	1	-	1	4	1	5	37	13	50	1	-	1	-	-	-	59
2003	1	-	1	1	-	1	3	2	5	28	13	41	1	-	1	-	-	-	49
2004	-	-	-	-	-	-	8	2	10	21	7	28	2	1	3	-	-	-	41
2005	1	1	2	-	-	-	4	1	5	27	8	35	4	3	7	-	-	-	49
2006	-	1	1	-	1	1	9	6	15	27	8	35	2	3	5	-	-	-	57
2007	2	1	3	-	1	1	6	2	8	17	17	34	5	1	6	-	-	-	52
2008	6	2	8	2	1	3	5	2	7	42	11	53	6	6	12	-	-	-	83
2009	3	2	5	1	1	2	4	2	6	12	9	21	9	3	12	-	-	-	46
2010	4	-	4	-	-	-	5	3	8	6	4	10	7	3	10	-	-	-	32
2011	7	3	10	1	2	3	8	6	14	25	12	37	11	6	17	-	-	-	81
2012	5	4	9	4	-	4	9	12	21	9	13	22	3	8	11	1	-	1	68
2013	1	-	1	1	1	2	19	22	41	13	6	19	4	1	5	-	-	-	68
2014	-	-	-	6	9	15	37	23	60	8	8	16	-	1	1	-	-	-	92
2015	1	-	1	9	23	32	23	21	44	2	3	5	1	-	1	-	-	-	83
2016	-	-	-	24	33	57	39	27	66	1	-	1	-	-	-	-	-	-	124
2017	-	1	1	43	34	77	20	24	44	-	1	1	-	-	-	-	-	-	123
2018	-	2	2	52	51	103	15	18	33	-	-	-	-	-	-	-	-	0	138
Tot	45	22	67	145	158	303	243	183	426	731	255	986	70	39	109	4	4	8	1,899
%	67	33	-	48	52	-	57	43	-	74	26	-	64	36	-	50	50	-	-



Figure 17. Number of graduates who held membership of the NZIA (except Retired members) by year of graduation.

Figure 17 shows the distribution of membership by year cohort for men, women and the total in 2018. This shows the growing number of graduates in each year cohort joining the NZIA over the 32 years. Also indicated is the convergence in the number of men and women membership numbers among the graduates joining over the past decade.

More significantly, Figure 17 shows that the numbers of male memberships remain fairly constant over the 32-year period, whereas there is a very clear increase in women members when moving towards the more recent graduate year cohorts.

Other changes over time can be seen. The average female membership over the 32year period is 35 per cent, but if measured over the past decade, this is 47 per cent. This suggests that, while overall measures reflect conditions of previous decades (the male domination of memberships), there is an indication that, among more recent graduates, there is an increasing proportion of women members of the NZIA. This is largely due the higher proportion of women among the NZIA Student and Graduate membership.

The overall distribution of NZIA membership looks very different when only considering the Architect category, where women on average constitute 26 per cent (Figure 18). This shows the convergence of male and female Architect Membership numbers in the most recent graduating year cohorts, but there is a widening gap between the number of women and the number of men towards 1987. However, as is the case with overall membership, when looking at the past decade, the percentage of women who are Architect members is 56 per cent. Again, this suggests that the increasing number of women graduates is beginning to have an impact on membership and their role in the formal profession.





Figure 18. Number of Architect Members of the NZIA by graduating cohort year and gender.



Figure 19. Number of Graduate, Student, Allied Professional, Affiliate and Academic Members combined and Architect Members, by year and gender.

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Figure 19 looks at the same data from another perspective and compares Architect members of the NZIA with the summation of all other non-Architect categories active in practice: Students, Graduates, Affiliates, Allied Professionals and Academics by gender.

Overall, among all categories of NZIA membership held by the graduates of concern, excluding Architect members, 53 per cent are men and 47 per cent are women. Membership of the NZIA signals an engagement with the professional body and, to some extent, to the practice of architecture. In this context, the significant role played by the non-Architect membership categories is also evident in the most recent graduating years - providing an important part of the workforce before Architect membership significant. becomes more Moreover, Figure 19 shows that, for this group of non-Architect members, the participation of women is relatively high: 44 per cent are women. Indeed, participation by women in this non-Architect group increases among the more recent graduating cohorts. Among graduates from the last decade (2009 to 2018), female in this group is 47 per cent. However, as already noted, these levels of female representation among non-Architect members is not matched by the NZIA Architect member category, where this is 26 per cent. This indicates that, while women are increasingly participating in formal indicated professional practice (as by membership), there remains a lag when it comes to Architect membership (and associated registration). Whether this relates to career choices women make or to perceived obstacles in the practice of architecture, it is explored in the focus groups with women practitioners in the next chapter.

7.5. Summary points

In summary, the following key points are highlighted for women among graduates, registered architects and members of the NZIA.

Women among graduates

- Among the 4,814 graduates between 1987-2018, 42 per cent are women. Over the past decade, the percentage of women among architecture graduates has been 49 per cent (reaching close parity with men).
- Over the past three decades, women graduates have increased by 113 per cent, while male counterparts have a smaller growth of 2.6 per cent.
- Over the next decade, gender parity will likely persist among graduates and there is a prospect that the female proportion may further increase.

Women among registered Architects

- Of the 2,083 registered Architects in New Zealand, 25 per cent are women. For comparison, the number is very, a percentage close to 24 per cent in Australia.
- Of the 1,022 graduates who were registered, 27 per cent were women, despite the fact that women made up 42 per cent of all graduates.
- While there is a progression towards an increase in the number of women graduates who go on to become registered, this is still

far from matched by the proportion of women who go on to register as architects in New Zealand.

Women among memberships of the NZIA

- Among the 3,986 members of the New Zealand Institute of Architects (NZIA), 39 per cent were women in 2018.
- Among the graduates in the Survey, women constitute 26 per cent of Architect members.
- Women constitute 43, 52, 36 and 33 per cent of the membership in the categories Graduate, Student, Allied Professional and Affiliate respectively.
- Overall, Architect Members constitute about half of the NZIA members, but only 30 per cent of this figure are women.
- Among the graduates in the Survey, only 27 per cent were Architect members (all of whom will also be registered with the NZRAB).
- To the extent that membership of the NZIA signals an engagement with the practice of architecture, the significant role played by the non-Architect membership categories is evident in the most recent graduating years

 seemingly providing an important part of the workforce in practices.

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8. Speaking with women about the practice and profession of Architecture

A total of 26 women were interviewed at the two hour-long focus group sessions in Auckland and Wellington. The profiles of the women at each session were similar, as were their responses when identified during data coding. Therefore, the responses from the participants are grouped together in this report.

A number of key themes emerged to add richness to the guantitative data revealed by the statistics about graduates over the last 32 years. First, to describe the focus group participants, most were 25-34 years of age (Figure 20) and of NZ European ethnicity. Maori and Pasifika graduates were represented, but less so than had been hoped in this selfselecting sample. The majority the of participants who fall in to the 'other' category for ethnicity are of varying Asian origins (Figure 21).



Figure 20. The ages of focus group participants.



Figure 21. The ethnicities of focus group participants.

Participants were asked if they were registered architects and the split was 65 per cent not registered and 35 per cent registered. Of those not registered, their roles were varied, but predominantly they worked as architectural graduates or in roles in adjacent built environment disciplines such as urban design or project management (Figure 22). Of those registered, roles varied between being an Architect, Principal or Project Architect, Project Lead or Director.

To further build the profile of the focus group, participants were asked about the type of work they did and, if they worked in a design firm, the size of the practice they worked in. Most worked on residential projects, followed by commercial, public architecture and industrial (Figure 23).



Figure 22. Current roles undertaken by focus group participants.



Figure 23. Type of work undertaken by focus group participants.



Figure 24. Size of the practice where participants worked in a firm.

This may have followed a pattern for the work available to be related to the size of the firms where participants were working. However, the majority worked in large practices of 20 people and over, with 26 per cent working in firms of over 100 staff. Sole practitioners made up 11 per cent and firms of less than 10 made up 15 per cent of the participants (Figure 24).

In line with the locations of the two focus groups sessions, participants were nearly evenly split between the two locations in terms of where they studied. As shown in Figure 25 and Figure 26, Auckland was split between The University of Auckland and Unitec, with only a small number of participants in either city having studied elsewhere.

When asked if they had done further studies, 77 per cent said no and 23 per cent said that yes, they have gone on to do further post-graduate study.





Figure 25. The institutions where focus group participants studied for their first degree.



Figure 26. The institutions where focus group participants studied for their second degree.

The following sub-sections summarise and discuss the main outcomes from the two focus group in Auckland and Wellington. It is to be noted that, although focus groups are not representatives of the opinions of all women in the architecture profession in New Zealand but just of those of the participants, they offer useful inputs for a reflection for all institutions involved in this study.

8.1. Architectural education and the transition to practice

The focus group sessions began by asking the participants about why they had chosen to study architecture. Responses ranged from the influence of family to suggestions made by school career councillors. The majority had chosen to study architecture early and worked towards it through their schooling, being allrounded and succeeding in both art and mathematics/science disciplines. Both focus groups had a high proportion of participants that cited a balance between art and mathematics/sciences as a key driver for choosing architecture. The words "creativity" and "practicality" were used by manv participants, one noting "I think I studied architecture because it was a balance as I've always been guite creative and enjoyed that aspect of life and then just being good at mathematics and physics [...] so I just tried to pursue something that I was both good at and enjoyed".

Early childhood experiences, including being on construction sites or experiencina buildings/places that impacted them were also mentioned as a factor. One participant recalled "as a really young kid [...] we stayed in a modernistic apartment and it had this huge impact on me". Another added: "my father was an architect so as a child [...] on a Saturday I would go and play in piles of gravel on building sites and so it was just part of my world and it seemed very natural to just become an architect as well". Parental influences were considered by many to be a driver towards architecture: "my dad's a civil engineer and my brother has become a civil engineer as well and grandfather was an engineer, so it's kind of in the blood". Architecture was also seen as a solid career choice, which appealed to both the participants and their families.

Other participants cited a desire for social impact as a driver for their studying architecture. One participant commented: "I feel like we have an opportunity to really contribute positively to society through architecture and yeah, it gives me a sense of purpose designing and bringing it to fruition". Another added: "the thing I love about architecture is it's about people ultimately".

When asked about their views on their experiences in architectural education, the predominant view expressed by participants was a general feeling that their education experiences were not aligned to their experiences of practice. Some preferred practice to education and others preferred education to practice. One participant lamented that "the office is completely different to what I expected leaving University", noting that they "came out of architecture school thinking I wouldn't practice architecture at all [...] as soon as I started working it was much better".

The future of education was not discussed in detail in the focus groups. One participant mentioned the value of diverse groups studying together, identifying that equality begins in education and continues into practice.

Another strong view shared by participants was that their education had not fully prepared them for the profession and business of architecture. Both focus groups suggested that education should teach life, business and people skills to better prepare students for the 'real world'. One participant commented that "the fantasy in architecture school doesn't guite translate into being a graduate [...] one of the problems is a quite big disconnection between what is happening in practices and what the schools are preparing the students for, so they get in to the working force and it is a shock on both sides". Another key aspect of architectural education that was discussed by participants was the way education is not collaborative across the built environment disciplines to represent how people work together in practice. One participant, for example, commented:

> The idea that it's about autonomy of working independently isn't how it is, it's a very collaborative space [...] working with different consultants and coordinating things is more accurate but that doesn't translate through in university study.

This led on to discussing the role of the size and structure of participants' practices on their experiences in the profession. It was generally seen that smaller practices could provide greater exposure and breadth of experience on projects, in turn making registration easier and more attainable. One participant, for example, commented that they were "very fortunate to be in a very small firm so there were only 10 of us so I was forced to do things I didn't even like doing". Others spoke more about the quality of the firm in terms of their commitment to giving diverse experiences. One participant observed that they had found the path to registration "pretty straightforward" because they worked for "a great firm" which deliberately gave them a wide variety of experiences.



8.2. The registration process

When it came to reflecting on the aspirations the participants remembered having for their career prior to commencing it, a majority spoke about the autonomy and registration (so they can call themselves Architects) as aspirations for their careers. One participant commented: "I'd like to register so that I can someday have my own business; being my own boss would be nice".

A series of questions were asked to try and unpack some of the reasoning behind the statistics presented about registration and women. Participants who were not registered were asked if it was something they were considering and either, if not, why not. Or if so, how they felt registration would affect or benefit them and if there were any challenges or barriers they perceived they may face. For those who were registered, participants were asked what the path to registration was like for them and if they had found benefits and challenges to becoming and being registered. There was a division among the not registered respondents between whether registration was worthwhile or not.

Participants who were not registered and who did not intend to follow a path to registration predominantly felt that being registered "was not a priority" and would not assist their careers. One participant highlighted this idea stating: "the definition of what a registered architect in New Zealand is not the path for me". Others observed that it did not affect their pay or, if they were in adjacent roles as urban designers or project managers, then working towards registration would likely require working for less money as an architect and seen as an unnecessary step.

Comments about why both want-to-become and registered participants thought that registration was a good pathway for them revealed a variety of themes when coding the data. Firstly, registration was linked to having a sense of identity as 'a real architect'. One participant noted that "when you register there's no question mark", another added that it was "nice to have that title on my email". Identity also merged with convenience, with several participants commenting that "being able to call yourself an architect would be guite good cause it's a bit hard trying to explain it to other people [...] some people would just call me an architect but, no I'm not, I'm an architectural graduate [...] so that's a big pro for registration". This was fuelled by confusion about the differences between an Architect and an Architectural Graduate; one participant explaining: "when you say you're an architectural graduate they think you're studying still, or they're just completely confused, so it's just quite a vague place to sit while practicing, I think".

Similarly, registration was also viewed by many participants as part of the pathway to completion for the degree or "box ticking". One participant said: "I see it as the completion of your study [...] it's sort of the final thing you go through to wrap up you practising". Another quipped "I thought it was just the icing on the cake. Made the cake might – as well get it iced!" For others, registration was seen as motivation to fill gaps in their experience. One participant highlighted this idea, commenting: "I did registration to find the gaps I know I had [...] then after that I can specialise, but I felt like I needed to just get an across-the-board knowledge". Another added: "I found the registration process good for me. It made sure that I filled in all the gaps [...] I found the registration process incredibly rigorous and very thorough." The final positive reason discussed by those planning on registration was the idea that it signalled "safety" and competence to the public. Registration was described as the "minimum requirements that you're competent and you're no danger for the public".

Barriers to becoming and staying registered, for those who did intend to follow this path, were numerous and included the time and expense for registering and the difficulties experienced by many women in accessing the CPD programme. Describing registration, one participant who wanted to work towards it said: "the reason why I haven't done it yet is mainly time [...] a matter of having enough time to do registration documentation". Another the recently registered participant reflected by noting: "I found the actual registration process so time consuming, it just took so much time. [It has] been the biggest stress in my life [...] my whole life has come to this moment. It felt very big [...] occupied every waking hour probably for a minimum of six months". This sentiment was shared by all of the other recent registrants at the focus group session.

Another generally held view by participants was that CPD sessions were often inaccessible for people with families because they were in the school holidays or evenings. One participant observed that "you've still got to do CPD even if you're under suspension [...] which is seminars at 6pm or 7pm". This was linked to a discussion in the focus groups and whether the registration process was becoming out-of-date as the future of work changed. One participant observed that: "how we practice architecture has changed hugely in the last 20 years and the registration requirement framework has stayed pretty much the same".

Another key barrier to registration raised by participants was that of being "pigeon-holed" in to doing only one type of architectural work (such as detailing, CAD or rendering) and the need to move practices to gain a full breadth of experience for registration. One participant shared that:

> Being pigeon-holed is quite a big thing...they see you're good at something...a certain aspect of architecture and they kind of throw you in there...From my experience a lot of graduates just get shoved into certain roles and get made just to do that and they don't get the experience they need.

speaking registration, Another. about considered that they were "on the fence right now" about continuing to try for registration because they had been through the process but initially failed "through lack of experience, where, I've been pigeon-holed in my job [...] I need to move companies if I want to get registered, so it wasn't a positive experience [...] if it's not going to be supported [...] then why should I try?". Recounting a similar story, another participant's view was that: "you just have to move on because if they're not going to support you and give you that broad experience we owe it to ourselves to find that and just move



on [...] it's only natural you're going to be pigeon-holed and it's not right but unfortunately that's how it is".

This led to a discussion in the focus groups about the support and mentorship (or lack thereof) available for those seeking registration. The general consensus was that there is little in the way of support and mentorship freely or readily available and focus group participants identified this lack of support as a contributor to not pursuing registration or leaving the profession entirely. One participant lamented that "the core practice of architecture is still really exploitative [...] they expect Heaven and Earth to be moved by their graduates. They offer very little in terms of mentorship". Another added: "I started out thinking I was going to follow the kind of set path and get registered and tick the boxes as I went. And when I worked in London [...] my practice there was really supportive of that. I came back and worked in New Zealand and that all sort of fell away because I wasn't supported and I just lost sight of the registration thing because I felt like I needed a little help getting there and the help wasn't there".

The new health and safety legislation was a final reason perceived as being a barrier to registration because it meant greater liability could be placed with the architect. One participant observed that "health and safety obviously with the big law change [...] means more responsibility on the architect [...] maybe that in itself is a barrier [to registration] because it seems like an insurmountable barrier." The series of reasons explored in the focus groups sessions support the statistical findings in this report about the low rates of registration. It also revealed that the reasons are multifaceted and affect potential architects at all different ages and stages of their careers.

8.3. Defining Architecture and the roles of the Architect

Discussing registration early in the focus group sessions revealed many frustrations about the process, but also raised a significant discussion in the focus groups about how the terms 'architects' and 'architecture' were defined and what the role of the architect meant. This section presents the key themes that emerged on these topics from across the two focus group sessions.

Fundamentally, the focus group participants described architecture as being a broad and varied discipline. One participant described architecture as "a way of being [...] there are many kinds of architects and the practice of architecture is a very broad thing". Another added that the practice of architecture "teaches you to connect problems, find solutions for a whole lot of different users and different clients". Architecture was also described as an innately collaborative profession, brinaina different industry professionals together in projects. However, the changing nature of the broader profession and the way many newer professions were perceived to have encroached on the work an architect would have once done exclusively led some participants to raise concerns about defining the architect of the next 20 to 30 years. One commented: "We need to expand to a new place where we sit amongst this growing industry in construction [...] where we are the point of contact for every different consultant".

It was through this focus on the broad, complex nature of architecture and the role of an architect that the focus group participants were divided in their views about the 'title registration' model being the best representation of how to define an 'architect'. While the participants acknowledged that being an architect is defined by legislation and means you can only use the title if you are registered, the confusion, particularly by the public, about the term made it difficult to use. One participant noted: "you're practicing as an architect, doing everything that an architect does but you might not be registered which is where the confusion comes, because how you do you explain that to people?". Both focus groups commented about public perceptions being a difficult part of defining the term architect and the general consensus was that the public do not understand what an architect is (especially with reference to registration and the legalities around the use of the term). One participant described this issue of defining an architect by saying:

> The public don't really understand the difference [between а registered and non-registered architect]. There are lots of draughtspeople out there who people will think are architects because they provide a particular service which is similar and so you're kind of caught up in trying to explain it to people.

Alongside the registration discussion, 'responsibility' was a term used to describe the term 'architect'. Some participants felt that architects had a great responsibility because they were always dealing with people's money and lives. One participant summed up their perceived role as follows:

I think it's really powerful being an architect because, unlike other professions or so-called professions, we are working under an Act and we do have a disciplinary body and we have all of that to back us up so that you know the public should feel safer working with an architect...there should be that surety there about working with an architect.

Focus groups participants identified 'hard work' as a defining and necessary feature of success as an architect, also noting that this differed between individuals and practices. This was also coupled with the idea of needing to be 'assertive' and have 'confidence' to succeed, particularly in an industry dominated by males. One participant surmised: "we have to double down on our assertiveness if we want to get the exact same as a male". Another added that "being heard, being assertive" is important because as a young woman in a large firm she had noticed that there were "a lot of headstrong young men and it's really competitive [...]. I believe there's this perception that if you're confident you're also competent which is absolutely not the case: [you] have to become more confident to appear more competent". Another similarly commented: "I worked it out very guickly. Being a woman in a building industry, it's not an easy task and to


show that you are worth it, you actually need to go through the process and show that and be assertive". This led on to a discussion, shared in the next section, about the experiences of being a woman in the profession and practice of architecture in New Zealand.

8.5. The experiences of women in the profession

Throughout the focus group sessions, a number of themes emerged about the nature of the profession and the experiences of women. A first theme to emerge was the historically male nature and continued male dominance in the profession. There was a view shared that "the expectation [...] is that you assimilate a male's approach to be successful". Both focus groups commented on the disproportionate number of men still in senior roles when compared to women. One asked: "Why is there [...] a lower proportion of female principal directors? [...] And few other senior women just generally?". Both focus groups highlighted the lack of senior women and female role models in architecture, although did note the increase in support organisations and a general awareness of the lack of senior women, that was creating positive shifts to bring more women into the profession. One participant felt that "there are more women now so simply by numbers we're going to change the environment, which is great".

Both focus groups made references to there still being an 'old boys' club' or an 'old boys' network', although some participants also noted it was 'getting less and less' as time went on. The Wellington focus group commented on a general lack of respect for (young) women in the industry and younger focus group participant spoke about the ways in which they often wanted to appear older to gain respect. One participant commented: "I couldn't wait to turn 30 [...] I had grey hair and I purposely did not want to dye them [...] because I wanted to appear older". Another added "all of a sudden you turn 42 and you get this mantle of wisdom [...] I suddenly became a senior female architect, which is evidently quite rare, and so you have to be respected".

Both focus groups also commented on different preferences in ways of working between men and women, highlighting: "I think a lot of women actually deliberately choose not to work in those bigger practices and not to do those big commercial jobs because they don't want to, they don't want to go there, they don't like that lifestyle". This was linked to the idea that long working hours were still expected and that the 'time-equals-productivity' mindset was still prevalent, an aspect found in overseas studies as well (Padavic, Ely & Reid, 2020). One participant described it as:

> [The] industry is caught up with this notion that time equals productivity: we totally know it doesn't [...] I just wish we could go towards more of a project base where productivity is about getting the job done, cause that's how we work [...]. It would be a whole shakeup because everyone bases everything on time.

The differences between the ways participants perceived men and women to work also raised concerns about part-time versus full-time work. It was seen that it is difficult to gain or retain registration when working part-time, because CPD events are less accessible. A participant commented that "if you're only working half time and you want to stay registered that they need to make it easier because paying all that money for registration and trying to keep up with the CPD was a real problem".

Other observations during the focus group sessions included that:

- Career breaks or voluntary suspension can diminish confidence when mothers return to work.
- It can take time and effort to regain careermomentum after taking time off for family, and this may put women off returning to the profession.
- Voluntary suspension creates ambiguity because the title 'architect' cannot be used while on suspension. This makes being a mother and being a sole practitioner where very small jobs may keep coming in especially difficult.

Changes to voluntary suspensions were one of the areas that focus group participants felt needed to change the most about practice in New Zealand.

The gender pay gap had been felt by focus group participants and many of them had considered moving professions for better pay. There was a view that women need to 'fight' for equal pay. A number of participants shared stories about their issues with architecture not being a wellpaid, albeit a publicly respected profession. One noted: "money's a big thing and I'm stuck in a position now where I can't go down to residential practice because I can't afford to [...]. I've been also looking at potentially shifting into project management because I want to afford to buy a house". Not being able to buy a home on an architectural salary was a concern for many of the younger focus group participants. Another recounted an experience where a firm she was applying to "went for the most exploitative starting point they could, and I am sure if I wasn't a woman that would have been a different starting point".

Both focus groups discussed the need or want for more options to diversify within the profession of architecture and felt that women were strong proponents of this. Reasons for diversification included: pursuing a higher salary, specialisation or looking for work that better matched interests. Similarly to the 'paygap' discussion, one participant commented: "I'm starting to explore other options now as well...go in to project management...become a design manager for a construction company...I want to still keep that passion of looking at details, working stuff out but not necessarily working for an architecture practice".

Both focus groups discussed the value of support networks and mentorship (or a desire for better mentorship) for women in the profession. One observed that "as a profession we're not necessarily very supportive of each other, particularly with women". Another commented: "as a woman you know in our position [...] we need to join forces together to support each other [...] really work hard to increase our knowledge, competency and selfesteem". One participant suggested that New Zealand's professional body was well-placed to do more to enable and encourage mentorship for women and break down some of the barriers facing women in the profession, saying: "the



NZIA, for example, could play a role in sort of talking about these [chauvinist] cultures, we can change these cultures and support people talking about varying work hours and flexible working...and also talk with other industry professional groups".

8.6. The future of the profession

The focus group sessions concluded by discussing the future the participants saw for their profession. Generally, there was a feeling that the profession was changing, but that historical concepts of architecture are making the practice slower to adapt to change than some other professions. One participant commented: "although it's progressing and changing, we still have a very exploitative history [...] it's part of where we come from historically, and I think it's going to be bloody hard to shake it off". Another added that "having more women on your project teams would be great. While there are almost 50/50 in architecture...not so for engineers, not so for your builder, project managers [where] you're probably still the only woman".

However, while registration was noted as being more stringent and harder to obtain than it has been historically, it was acknowledged that progress had been made to date; particularly, a major change was acknowledged in moving towards more flexible and part-time hours being available. One participant observed "over the last three-ish years there's been massive change in the general expectation of employees. They actually kind of expect now some parttime work from home [...] positive changes are happening, rapidly". Another added "Everyone in the workplace is getting on board with the flexibility. When I started, I had no flexibility at all. Now I work in a workplace where I do a nine-day fortnight". Younger practices were noted (in both focus groups) as having a great impact on changing the profession. One participant shared that:

> There's a whole lot of younger practices that are coming through [...] which are led by these kind of generation X or Y. They are not just kicking the system but they're creating a different system, so in comparison to the older structures they're much more flexible with time, with themselves as well with their employees.

Technological changes too meant that "the whole structure of practice is changing". The younger participants felt this was an opportunity for them and, in general, the increasing number of women in architecture held hope for the participants of a changing environment for architectural practice.

This led to a concluding discussion about diversity in the architecture profession. One participant summed this up by saying: "I'd really like to see that different and wider-ranging approaches [to architecture] are respected and appreciated [...] so you don't just have to be confident to be competent, so that you can be soft spoken or you can approach from a different direction or you can be working in a different field and they're all still equally respected". This included the notion that increased trans-disciplinarity may become part of a technologically savvy, diverse and respectful architecture profession in the future.

8.7. Summary points

In summary, the following key points from the focus groups are highlighted.

Architectural education and the transition to practice

- Reasons for choosing to study architecture were varied, but most decided to study architecture early and worked towards it through their schooling; being all-rounded and succeeding in both art and mathematics/science disciplines.
- When asked about their views on their experiences in architectural education, the predominant view expressed by participants was a general feeling that their education experiences were not aligned to their experiences of practice.

The registration process

- There was a division among the not registered respondents between whether registration was worthwhile or not.
- In the focus groups, participants who were not registered and who did not intend to follow a path to registration predominantly felt that being registered "was not a priority" and would not assist their careers.
- Registration was linked to having a sense of identity as 'a real architect' and was also viewed by many participants as part of the path completion for the degree or 'box ticking'.

- Barriers to registration were noted as being numerous and included the time and expense for registering, the inaccessibility of the CPD programme and being "pigeon-holed".
- Views on registration explored in the focus groups sessions support the statistical findings in this report about the low rates of registration. They also revealed that the barriers to registration are multifaceted and affect potential architects at all different ages and stages of their careers.

Defining architecture and the roles of the architect

- Fundamentally, the focus group participants described architecture as being a broad and varied discipline.
- Focus group participants were divided in their views about the 'title registration' model being the best representation of how to define an 'architect'. The confusion, particularly by the public, about the term 'architect' made it difficult to use.
- Focus group participants identified "hard work", the need to be "assertive" and have "confidence" as factors to success, particularly in an industry dominated by males.

The experiences of women in the profession

 Both focus groups commented on the disproportionate number of men still in senior roles when compared to women and highlighted the lack of senior women and female role models in architecture. The groups also both discussed the value of



support networks and mentorship (or a desire for better mentorship) for women in the profession.

- Changes to voluntary suspensions was an area that focus group participants felt needed to change the most about practice in New Zealand.
- The gender pay gap had been felt by focus group participants and many participants had considered moving professions for better pay.
- Both focus groups discussed the need or want for more options to diversify within the profession of architecture and felt that women were strong proponents of this.

The future of the profession

Generally, there was a feeling that the profession was changing, but that historical concepts of architecture make the practice slower to adapt to change than some other professions



9. Conclusions and recommendations

The analysis reveals that between 1987 and 2018, there were 4,814 architecture graduates from the three Schools of Architecture, with annual numbers increasing over the 32-year period - from 85 in 1987 to 226 in 2018. The University of Auckland produced just over half of the graduates, Victoria University of Wellington just short of one-third, and the balance from the new School at Unitec, that produced its first graduates in 1998. Among the 4,814 graduates surveyed, 42 per cent are women. Graduate ethnicity was surveyed for the past decade (2009-2018) and this shows that those identifying as 'European/Pakeha' are the largest group at 48 per cent, and as a proportion have remained fairly consistent over the past decade (6 per cent growth). Those identifying broadly as 'Asian' constitute 36 per cent and have grown by 70 per cent. Maori represented 9 per cent of graduates (compared to 15 per cent in the general population), while Pasifika was 4 per cent. The data indicates that Māori and Pasifika have relatively small numbers, and that for Maori these have declined over the past decade.

Of interest in the research, was the progression of these graduates to the profession and practice of architecture in New Zealand. This is measured by formal registration with the NZRAB and/or membership of the NZIA. The data reveals that 24 per cent of eligible graduates from the 32-year period were Registered Architects in New Zealand in 2018, while 40 per cent held membership of the NZIA across a number of categories. Among 1899 graduates who hold NZIA membership, Architect members comprise 52 per cent, while the balance of 48 per cent comprises NZIA Student, NZIA Graduate, Allied Professional, Affiliate and Academic categories. This shows that roughly half of the NZIA membership from the graduate group in 2018 were non-Architect members, underscoring their significance to the NZIA and the wider profession.

While registration does not require membership of the NZIA, it was noted that the percentage of Registered Architects not a member of the NZIA was 3 per cent, a significant drop from the previous Survey in 2010. Moreover, while the NZRAB requires between 2.5 and 5 years of specified experience before making application for registration, only 44 per cent of the eligible graduates in the Survey had done so. Indeed, for most, registration occurs at various points of time after graduation over the 32-year period. This suggests that for many, there is no perceived urgency for registration and that this may be driven by personal career progression motives. This was very much underlined in the focus group discussions with women graduates. The analysis shows that less than half of all graduates (just over 40 per cent) completing qualifications over the period are engaging in formal practice within New Zealand. This identifies a sizable number of graduates (over half) over the past 32 years who have not progressing to formal practice within New Zealand. They will include international students (although a relatively small number in New Zealand), those pursuing architecture careers in

other countries, recent graduates seeking employment in the architecture profession and those pursuing other occupations.

Noting that less than half of the graduates in the Survey are registered or members of the NZIA, raises question about the relationship between industry needs and supply, and the growth of New Zealand's population (soon to be 5 million). When comparing data from the three graduate surveys, what is shown is that in the last decade, the ratio of graduates per 1,000 people shows a small decline. On the other hand, the ratio of registered architects at 0.48 per 1,000 people compares favourably to the 0.5 in Australia. In the previous Survey (Haarhoff, 2010) attention was drawn to Department of Labour's 2005 data indicating that New Zealand required 200 graduates a year to replaced forecast retirements. Getting better а understanding the complex relationships between architecture araduate numbers. industry demand, the roles of the organised profession and how practice may change in future is perhaps an area for further study. For example, to what extent are architecture graduates contributing to the practice of architecture from outside the formal profession? How might this change in the future? And how might this influence education?

With regard to women, of the 4,814 graduates over the past 32 years, 42 per cent are women, although the number of women among graduating cohorts has progressively increased over more recent years: in the decades ending in 1998, 2008 and 2018 this has been 33, 42 and 49 per cent, and is evident at all three Schools. This clearly indicates that the percentage of women graduates has reach parity with men, and this is likely to be sustained over future years. Where parity has not been reached is the percentage of women who go on to be registered in New Zealand and join the NZIA as an Architect member. Among the 1,023 graduates in the Survey who were registered with the NZRAB in 2018, 27 per cent were women. Among the 1,899 members of the NZIA among the graduates, 35 per cent were women in 2018. However, of the 986 graduates from the Survey who hold Architect category of membership, the percentage of women is 26 per cent. While these percentages still fall short of parity with men, it is nevertheless an improvement over previous surveys.

While registration and Architect membership of the NZIA involves only a quarter of survey graduates, the percentage of women in other categories of membership indicates higher participation by women. The percentage of women among the NZIA Student and Graduate member categories is 52 and 43 per cent respectively. These categories of membership, along with Affiliate and Allied Professional categories persist across all year cohorts, and this underscores their role in practice, and especially the women involved.

An issue identified in the focus groups is a perceived lower status for those who are not registered (and Architect members of the NZIA), despite key roles they perform in practice. Focus group participants who were not registered and who did not intend to follow a path to registration, predominantly felt that being registered "was not a priority" and would not assist their careers. Comments about why those who want to become registered and those who were, nevertheless expressed a view that



registration was a good pathway for them because: it linked to having a sense of identity as 'a real architect'; was viewed as part of the path completion for the degree; and was seen as a gap-filler that helped architects to be allrounded in their skills.

Barriers to becoming and staying registered, for those focus group participants who did intend to follow this path were numerous. They included the time and expense involved in registering, the difficulties in accessing CPD events for those with families, the risk of being 'pigeonholed' in to doing only one type of architectural work and the liability risks associated with the new health and safety legislation in New Zealand.

Within the focus groups, there was generally a feeling that the profession was changing. A major change was acknowledged in moving towards more flexible and part-time hours. Changes to voluntary suspensions were identified as key areas needing improvement in architecture practice in New Zealand.

Both the Wellington and Auckland focus groups commented on the disproportionate number of men still in senior roles as compared to women and also raised ongoing concerns about the gender pay gap, although improvements were perceived to have been made.

Amidst the evolution of female representation in architecture, the profession generally is undergoing change: "how architects define themselves, how practices operate, and the range of roles and types of work pursued: are all being rethought" (Clark, 2015). Parlour's Guides to Equitable Practice (Clark, 2015) aim to facilitate this change by providing recommendations to architecture practices, employees and the wider profession and offer a framework of key goals to enable an equitable architectural profession in which people want to stay. These goals are explored in eleven key areas: pay equity, long hours, part-time work, flexibility, recruitment, career progression, negotiation, career break. leadership. mentorship and registration. These key areas align with the themes explored in and emerged from the focus groups and offer core areas that deserve attention when considering the future of architecture profession in New Zealand.

The following sections of this report include specific recommendations for NZRAB, NZIA, Schools of Architecture and options for future research to expand this discussion.

This research has provided new data and insights on the progression of graduates in the architecture profession and identified areas for further research by architecture academics working with the profession. These include the following broad topics:

- In light of the focus group discussions and with reference to the research context, further focus groups could be run to gain a broader representation of graduates (by increasing numbers). Some highlighted issues from the focus groups that could be given specific attention are the definitions of 'architecture' and 'architect' and the impacts and value of mentorship and collaboration.
- Understanding what teaching pedagogies and approaches could be more effective to increase the preparedness of graduates at the end of their university journey (e.g. adopting 'live projects' model, increasing the

level of multi-disciplinarity of university courses, especially design courses, etc.).

 Little research has been undertaken specifically about career paths of Australian and New Zealand graduates, so there is little data on graduate destinations outside of the formal profession architecture.

9.1. Recommendations for the NZRAB

- As definitions of 'architecture' and 'architect' are evolving, there is a need to engage more publically in this conversation under the key areas described by the Parlour Guides to Equitable Practice, as outlined in the introduction of this chapter.
- Focus group participants in this study identified that support and mentoring for those seeking registration, and for women generally, could be more vigorous and flexible.
- Engage with industry and government towards identifying future demand for architects in New Zealand, taking into account pending retirements in the profession and to better drawn on the large pool of New Zealand architecture graduates currently not pursuing careers in the formal profession.

9.2. Recommendations for the NZIA

- Continue to promote with members and especially practices, ways to put into place mentorships, and liaise with the NZRAB over the registration process.
- It was identified from the focus groups that there is a lack of public knowledge around

the roles of an architect and the value that an architect has (over other built environment designers or technicians). With this in mind, there is a need for public education about these definitions, to better inform the public and clients of the value of an architect.

- Further to the above, as the architecture profession evolves and diversifies, there is a need for better acknowledgement of the full range of architecture roles, outside of traditional practice, especially as the nature of practice evolves over the next decade.
- Participants in the focus groups expressed perceptions of unequal value placed on registration over many other valuable roles played by non-Architect members in the profession. This was noted in the previous study (Haarhoff, 2010) and there remains a case for better nurturing of non-Architect members who may not seek registration and creating recognition that gives higher status to the roles they play, and making such roles worthy goals in themselves.
- The remuneration and gender pay gaps of architects when compared to other built environment professions is a growing concern that needs more attention in order to retain graduates in the architectural profession.

9.3. Recommendations for Practices

- Maximise opportunities for mentoring employees to progress their careers in directions they identify.
- Maximise opportunities for more flexibility in the way practices work and breaking the



historic idea that long hours are measures of loyalty and worthiness.

 Working with the NZIA through the NZIA Council and local Branches to explore the issues identified and helping to find new pathways.

9.4. Recommendations for the Schools of Architecture in New Zealand

- Investigating the roles of graduates who do not pursue career in the formal profession and recognising that the qualifications and curricula offered may need to be better aligned with the range of career pathways pursued, especially over future years.
- The focus group participants highlighted a perceived disconnect between architectural education and practice, with one not being always fully representative of the other. With this in mind. Schools of Architecture could look to better align themselves with practice, for example through suggestions offered in the focus groups of 'live projects', more problem-based examples and providing better education on the realities of practice and their multiple interconnected aspects and disciplines. An increased community engagement and involvement of industry stakeholders across architecture programmes could also help students find their specialisation and interest in the architecture sector much in advance.
- Working on activities supporting the development of soft skills amongst students, particularly regarding communication, teamwork, self-awareness and leadership. Soft skills are an important component of a

successful career in architecture and can help improve graduates' employability, in addition of their agency within the architecture sector and architecture practices.

An increasingly urgent point of reflection for Schools of Architecture is the offer of online architecture education and the extent to which distant learning can meet the Architecture Program Accreditation Procedure and the delivery of the AACA's National Standard of Competency for Architects (Architects Accreditation Council of Australia, 2020), while retaining teaching and learning guality. The urgent need to ensure teaching continuity during the Covid-19 lockdown period in New Zealand has forced all Schools of Architecture to reflect limits and opportunities of online on teaching. both synchronous and asynchronous. It will be interesting to see what changes, if any, this alternative mode of delivery will bring to Architecture education once the emergency will be over.

9.5. General final recommendations

Tracking the progression of architecture graduates into the practice of architecture and the affiliation to relevant professional bodies is important to understand the status and direction of the profession, as well as to monitor the presence of gender inequality and barriers to career advancement. Considering the difficulties experienced in this Third and in the previous Surveys in aligning names between data sets from the different institutions, and in view of future studies (also beyond the purposes of this now recurrent Survey), it is recommended that the NZIA and NZRAB make an effort in achieving a consistent approach in collecting relevant data from their members and registered professionals, such as asking for full legal name instead of preferred names. In addition, asking for gender and ethnicity information as well would increase data sets that can be analysed in the future.

The focus groups completed in this research offered a very useful 'snapshot' on changing perspectives of graduates and registered architects, highlighting barriers and challenges perceived by this group of professionals. These focus groups could be held by the researchers at shorter intervals, to collect ongoing feedback from relevant profiles that can inform activities and initiatives of the NZIA and NZRAB in the next future.



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FUTURE CITIES RESEARCH HUB



List of figures

Figure 1. Number of professional architecture graduates by year of completion at The	Allied Professional Membership by year cohort 1987-2018 (n=1,891)43			
University of Auckland, Victoria University of Wellington and Unitec, and the total number of graduates in the period 1987–2018	Figure 11. Distribution of numbers by graduating cohort years for NZIA Architects and NZRAB (n=1,642)44			
Figure 2. Annual numbers of graduates by ethnic group 2009 to 2018	Figure 12. Percentage of male and female graduates in each graduating cohort 1987 to			
and the number from each graduates 1987-2018, cohort who were registered at the end of 2018.	Figure 13. Number of male and female graduates, and the total by year: 1987 to 2018. 50			
Figure 4. Percentage of each graduating cohort registered at the time of Survey (n=1,019)	Figure 14. Percentage of female graduates in each graduating cohort from 1987 to 2018 by Architecture School			
Figure 5. Frequency distribution, by percentage, of the number of years between graduation and registration (n=1,019)	Figure 15. Registration numbers by graduating year cohort, for men, women and the total 1987-2018			
Figure 6. Percentage distribution of graduates who report their practice location by NZIA Regions (n=754)	Figure 16. Percentage of males and females who were registered at the time of survey by graduating year (n=1,023)			
Figure 7. Percentage distribution of reporting graduates in each region by graduating programme source (n=754)	Figure 17. Number of graduates who held membership of the NZIA (except Retired members) by year of graduation			
Figure 8. Comparison of NZIA membership numbers by category with membership derived from among the graduates in the Survey	Figure 18. Number of Architect Members of the NZIA by graduating cohort year and gender 59			
(n=1,705)	Figure 19. Number of Graduate, Student, Allied			
Figure 9. Distribution of the number of NZIA Affiliate, Student, Graduate, Architects and Allied Professional Membership by year cobort	Professional, Affiliate and Academic Members combined and Architect Members, by year and gender			
1987-2018 (n=1,891). Note: the figure excludes Academics (8 members)	Figure 20. The ages of focus group participants. 			
Figure 10. Percentage distribution of NZIA Affiliate, Student, Graduate, Architects and	Figure 21. The ethnicities of focus group participants			

Figure	22.	Current	roles	undertaken	by	focus
group p	oarti	cipants				64

Figure 26. The institutions where focus group participants studied for their second degree.....65



List of tables

Table 1 - Graduate numbers and the number of graduates per 1,000 people in New Zealand in 1998, 2008 and 201819
Table 2. Number of graduates from professionalarchitecture programmes in New Zealand from1987 to 2018
Table 3. Ethnicity of graduates 2009 to 201823
Table 4. Number of graduates by cohort yearand the number and percentage who areRegistered Architects
Table 5. NZIA categories of membership (Source: New Zealand Institute of Architects)
Table 6. Numbers of NZIA members by category(end of 2018) (Source: New Zealand Institute ofArchitects)
Table 7. NZIA active membership compared tomembership among the surveyed graduates(2018)
Table 8. Comparison of total NZIA Membershipnumbers across the three surveys.39
Table 9. Gender distribution of NZIA membershipby category (2018). (Source: New ZealandInstitute of Architects). Note: Percentages asgiven in the 2018 NZIA Annual Report do not alltotal 100 per cent because of non-specifiedgender.48
Table 10. Number and percentage of male and
graduating in decade periods
Table 12. Total number graduates by graduating year cohort, those registered and the



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FUTURE CITIES

RESEARCH HUB

The Future Cities Research Hub brings together researchers at the School of Architecture and Planning of The University of Auckland, addressing different disciplines concerned with the built environment and their multiple interfaces with the natural environment.

The aim of the Hub is to better understand the complexities of cities across the building, neighbourhood and urban scales, as well as the challenges of ecosystems during and after urbanisation, in order to find innovative solutions to address built and natural environments' challenges and contributing to the achievement of national, regional and global sustainable development goals and plans.



