Article

The destruction of Sciences at Massey University and why we need an independent entity that can investigate universities

Alona Ben-Tal*1,2, Troy Baisden3,4,5,6,7

¹Insightful Modelling
²Department of Physiology, Faculty of Medical and Health Sciences, University of Auckland
³New Zealand Association of Scientists
⁴Motu Economic and Public Policy Research Trust
⁵Te Pūnaha Matatini Centre of Research Excellence
⁶Climate Change Science and Policy, Victoria University of Wellington
⁷School of Environment, Faculty of Science, University of Auckland

This article summarises the events that led to the dismantling of the School of Natural and Computational Sciences at Massey University, Albany campus, and the unsuccessful attempts to preserve the school in some form by staff, the public and various learned societies including the New Zealand Association of Scientists (NZAS). Here we suggest that the reasons given by the university for the need to dismantle the school changed throughout the process. This made it difficult to identify and react to the real motivation behind the destruction of the sciences on the Albany campus. We argue that the failed attempts to save an academically successful and financially viable school expose a weakness in the current Education and Training Act and demonstrate why New Zealand (NZ) needs an independent entity that can investigate universities, quard the national interests, ensure accountability of tertiary institutions' administration, and protect the academic freedom of individual academics.

Background

Massey University was established in 1928 as an agricultural college in Palmerston North (PN). It opened its Auckland campus (known as the Albany campus) in 1993 and expanded into Wellington in 1999. Distance learning has been offered at Massey University since 1960 and has often been considered as its fourth campus.

In 2020 the College of Sciences at Massey University consisted of six schools and several research institutions and labs. Two of the schools (School of Natural and Computational Sciences and School of Built Environment) were based on the Albany campus, three schools (School of Fundamental Sciences, School of Veterinary Science and School of Agriculture and Environment) were based in PN and one school (School of Food and Advanced Technology) was spread across the PN and the Albany campuses.

The Albany campus was the fastest growing campus at Massey University (Tuckey, 2018) and the School of Natural and Computational Sciences was doing very well

by financial and academic standards. The school was profitable, contributing around 30% of its earnings to the university thanks to a growing number of undergraduate students, a good number of postgraduate students and many research grants¹. Around 60 permanent academic staff at the school included 4 Rutherford fellows, 3 Massey University research medal recipients (in 2019 and 2020) and 1 Lecturer of the year recipient (in 2019). This evident strength did not stop the university from suggesting in early 2020 to remove the natural and mathematical sciences from the Albany campus and eventually achieving most of its goal in early 2024 (a process we describe in more detail below).

The Albany campus was spread across three sites and one of them (Ōtehā Rohe) was sold in 2016 to finance a new science building. When the Vice Chancellor of Massey University, Prof Jan Thomas, took over from Steve Maharey in January 2017, the name of the building was changed to "Innovation Complex", removing the mention of "Science" from its name. Construction of the building began in late 2019 and finished at the end of 2022 (Heagney, 2023). Despite the change in name, the building contained state-of-the-art science laboratories that unfortunately were used for only 1.5 years before being decommissioned and repurposed following further redundancies at Massey University in 2024.

Between 2016 and late 2019, the College of Sciences undertook three reviews of its BSc offerings. The purpose was to develop a simplified, cohesive portfolio of science programmes, with minimal duplication and financial sustainability. New, redesigned, BSc degrees were offered for the first time in the first semester of 2020.

At the beginning of 2020, staff on the Albany campus were relieved that an agreement over the new BSc offerings

 $^{^1\}mathrm{The}$ school net contribution to the university was \$5.3 million in 2018 and \$5.8 million in 2019; it taught 1320, 2034 and 2150 undergraduate students in 2017, 2018 and 2019 respectively and in 2020 it had 72 PhD students and 74 Master students.

^{*}Correspondence: alona@insightfulmodelling.com

was finally reached and excited about the construction of the new purposely designed science building. They had no reason to suspect what was coming.

The first discussion document

On Monday 24 February 2020, the first day of semester one, and before anyone could have imagined lockdowns due to Covid-19, the College of Sciences at Massey University published a discussion document suggesting that the natural and mathematical sciences would be removed from the Albany campus and taught by video from PN (Education and Workforce Committee, 2020a). This meant that the School of Natural and Computational Sciences would be dismantled. The head of school, Prof Dianne Brunton, only found out about the document on Friday 21 February, three days prior to its publication. efforts to delay the release of the document by one week so she could correct errors she identified in the document were unsuccessful. The discussion document misrepresented the true financial position of the school (Education and Workforce Committee, 2020a) and was a huge shock to staff (see also "Official Information requests" below). There was a wide media and social-media coverage and a petition signed by over 12,000 people (http://chng.it/Vx2fZBHQ). The petition was subsequently considered by the Parliamentary Education and Workforce Committee which, in its final report, expressed concern at the possible loss of face-to-face science teaching at Massey Albany and at the apparent lack of internal engagement and consultation prior to the release of the discussion document (Education and Workforce Committee, 2020a,b).

In response, the University announced that there would be a second discussion document.

The second discussion document

Before the release of the second discussion document, the University published "New policies and guidelines on media commentary and social media". Staff were reminded that they should not "bring the University into disrepute, defined as either wilfully or deliberately discrediting the University publicly" and that the policy held whenever they used university equipment. In September 2020, the College of Sciences also released internally a "Roadmap" outlining a plan to close offerings in 2021, restructuring the schools and laying off one group of people at a time, once consultation on the second discussion document ended. Effectively, the process outlined in the first discussion document was broken down into small steps, each with a limited scope, making it more difficult to provide meaningful feedback and resist the changes suggested.

The second discussion document was released on 6 October 2020 and outlined a plan to cut 32% of the College of Sciences staff by 2023 with some units of fundamental sciences set to lose 50% of their staff. Following a short consultation period (17 working days), the College of Sciences announced the final decision regarding its academic plan and started implementing the closure of courses. Voluntary redundancies were offered which some scientists chose to take (see "Restructuring of the schools" below).

An open letter by NZAS and other learned societies to incoming ministers

In response to the second discussion document NZAS, together with six other learned societies, published an open letter about the situation at Massey University (Baisden et al., 2020). The letter called for the development of mechanisms for ministerial intervention when a university does not follow its responsibilities under the Education and Training Act (Ministry of Education, 2020). The letter claimed that ministerial intervention has effectively been defined in the Parliamentary Education and Workforce Committee final report (Education and Workforce Committee, 2020a), quoting in the letter from the report:

"The Minister² said that, although he has a personal view about the situation, the threshold for intervention is "very, very high". He would only be able to intervene in the operational or management decisions of a tertiary education institute if its decisions were inconsistent with the nature of its services, the efficient use of national resources, the national interest, or the demands of accountability."

As an alternative for ministerial intervention, the letter suggested an independent review. However, the Minister investigated and concluded that even an independent review would be interference in universities under the Act.

Official Information requests

In response to staff at the School of Natural and Computational Sciences claiming that the first discussion document misrepresented the financial position of the school, NZAS sent a number of official information requests (OIR) to Massey University. The OIR data confirmed that the School of Natural and Computational Sciences returned profits of 30.4%, 30.2% and 30.1% in 2018, 2019 and 2020 respectively. It also showed that the actual profit of Massey University's College of Sciences in 2020 was approximately \$11.7 million higher than predicted in the first discussion document³, implying that teaching was not the source of the financial problems at the College of Sciences. In an article by Jamie Morton published in the NZ Herald (Morton, 2021) on 20 May 2021, NZAS argued that "Massey University is compromising its academic offerings for no good reason and wasting public money by restructuring a school that has been academically and financially successful". A spokesperson for Massey, responding to NZAS concerns, said that the latest announcement confirming the newly formed schools was not Massey's final decision on the college restructure and was not based on any financial consideration, rather, it was based on "the most sensible arrangement of similar teaching and research subject areas such that students and other stakeholders to the university can intuitively find the

²The minister at the time was Rt Hon Chris Hipkins.

³The first discussion document predicted a shortfall of \$15.7 million in 2020 before lockdowns were imaginable, however, the actual shortfall was only \$4 million.

qualifications, staff or resources they are looking for". This response from Massey provided a different motivation for the restructuring of the schools than the one presented in the first discussion document.

One of the issues NZAS tried to clarify was how Massey University came up with a target student-to-staff ratio it used to justify cutting staff. The first discussion document set the targets at 25 for mathematics and statistics, 20 for computer science, 16 for engineering and food technology, 18 for experimental sciences and 7.5 for veterinary science. Student numbers were measured as Equivalent Full Time Student (EFTS) where 1 EFTS = 8 students in a 15-creditcourse. In comparison, the overall student-to-staff ratio (obtained by taking the total EFTS at the university divided by the total full time equivalent staff) at Massey university was 5.7 in 2020 and 5.5 in 2023 (Massey University, 2023). For comparison, at the University of Auckland, it was 5.6 in 2023 (The University of Auckland, 2023). University consistently refused to provide its staff and NZAS any details on how target Student-to-Staff-Ratios are determined and how they are used to ensure that research and teaching are closely interdependent and meet international standards (Education and Training Act 2020, Point 268, 2(d)(i) B and C) (Ministry of Education, 2020).

A letter to the Ombudsman

In April 2021 NZAS submitted a request for assistance to the Ombudsman. The submission asked the Ombudsman to review the fairness of the processes related to the restructuring of the academic programs and schools at Massey University's College of Sciences, the silencing of staff and the accuracy of information provided under the Official Information Act. The submission also asked the Ombudsman to request that Massey University pause the progress of the proposal for change until a review of the process by the Ombudsman had been conducted.

A senior investigator from the ombudsman office responded to the NZAS submission saying that the ombudsman is unlikely to consider matters relating to employment issues or the substance of official information requests.

A letter to the Auditor General

Concurrently to the Ombudsman's request letter, NZAS also submitted a letter to the Auditor General, asking to urgently conduct a full audit of the finances of Massey University's College of Sciences between the financial years 2017-2020 inclusive and test the appropriateness of financial reports from these years in driving the proposals for change and discussion documents emerging from the College.

The Auditor General responded saying that they do not look at financial reports of individual colleges, they only audit the finances of the university as a whole. They also pointed to audited reports to demonstrate that revenue and expenses of research funding may differ widely at an institutional level.

Restructuring of the schools

At the end of 2021 the School of Natural and Computational Sciences and the School of Fundamental Sciences were dismantled, and two new schools were created: School of Natural Sciences and School of Mathematical and Computational Sciences. Both schools were now spread across the Albany and PN campuses. Data obtained through Official Information Requests (see the article "The impact on NZ university academic staffing over the pandemic years" in this issue), shows that by 1st May 2023, the combined schools had lost 34% of their staff through voluntary redundancies or resignations.

Further redundancies at Massey University

In early October 2023 the College of Sciences at Massey University proposed to restructure its schools again and cut more science jobs (Morton, 2023a). An alternative plan by staff and the Tertiary Education Union to save jobs while still meeting the financial targets was rejected by the university (Ellingham, 2023). Staff argued that the university was charging a high rate for useable floor area and that therefore, reducing the space the College of Science was using would reduce the costs significantly. Staff also argued that "teaching consumables" were allocated based on staff numbers, and not considering variances in subjects. They proposed that further cost savings could be achieved through sharing across departments and campuses and argued that keeping jobs will provide a pathway for growth.

By mid-December 2023 it was confirmed that over 60 science roles would be disestablished, mostly from the School of Natural Sciences on the Albany Campus (Morton, 2023b). The remaining staff at the School of Natural Sciences were merged with the School of Food and Advanced Technology. While natural science subjects would continue to be taught from PN, several engineering qualifications were closed altogether. With this latest round of redundancies and restructuring, the College of Sciences has removed most of its scientists from the Albany Campus – as was proposed in the February 2020 first discussion document.

Conclusion

There is no doubt that universities are working under challenging financial conditions following Covid-19 and insufficient funding from the Government. However, in the case of Massey University, there are good indications that the destruction of the sciences on the Albany campus was unrelated to Covid-19. The first discussion document was published before anyone could imagine lockdowns due to Covid. After failing with a shock-and-awe approach when the first discussion document was released, the University adopted a death-by-thousand-cuts approach (outlined in the internal College of Sciences "Roadmap") which was impossible to resist. Of particular concern were the imposition of arbitrary student-to-staff ratios as well as floor-area costs on units at the university without transparency over the methods used to calculate them. We believe that the pandemic obscured and silenced concerns about the reasons for, and impacts of, changes carried out at the College of Sciences, Massey University, between 2020 and 2024. The end result was the dismantling of an academically successful and financially viable school on Massey's fastest growing campus and spending millions of dollars on a purpose-built science building, only to dismiss the scientists that work in it and decommission state-of-the-art science laboratories 1.5 years after they were built. We believe that this undermines the legislative expectations on universities.

We therefore call on the government to conduct an independent review of the process that led to the destruction of the sciences on the Albany campus. The review should look at the process as a whole, the true motivation behind it, the validity of the financial calculations, and its impacts.

The unsuccessful attempts to save the sciences at Massey University, Albany campus, exposed a weakness in the current Education and Training Act. The word accountability appears at least 13 times in the Act, however, the Act does not provide any mechanism to hold the administration to account when they breach the conditions for freedom or excellence within tertiary institutions. Neither the Minister of Education, the Parliamentary Education and Workforce Committee, the Ombudsman nor the Auditor General, had enough scope to investigate the situation at Massey University independently at a time when something could still had been done to save the This means that what happened at Massey sciences. University can happen at any other university in NZ, putting our national science infrastructure and capabilities at risk. Hence, we argue that there is a clear and urgent need to develop a mechanism, possibly an independent entity, that could investigate universities, guard the national interests, ensure accountability of tertiary institutions' administration, and protect the academic freedom of individual academics. We note that an entity called "Visitor" that could investigate universities existed in NZ but was abolished as part of the educational reforms in 1990 (Whalley and Evans, 1998). The concept of "University Visitor" originated in England and was adopted by other countries including Canada and Australia but had been controversial. In NZ, it was accepted that the Visitor should be concerned not only with procedural fairness but also with substantive fairness, however, there was not enough information about visitorial practice and procedure. According to Whalley and Evans (Whalley and Evans, 1998) the Governor General of NZ responded to these concerns by publishing formal practice directions, however, we could not find the mentioned Governor General publication online.

We recommend that the University Advisory Group, currently considering challenges and opportunities for improvement in the university sector, look at the potential for reinstating the role of a Visitor or putting in place another mechanism for ensuring accountability at NZ universities while maintaining their independence.

Relevant Author Background

Dr Alona Ben-Tal worked at Massey University, Albany Campus, for 17 years as a lecturer, senior lecturer, and associate professor of Mathematics. She was Deputy Head of School, School of Natural and Computational Sciences from 2017 until the end of 2021. She left Massey University

in January 2022. Alona was a NZAS councillor for three years between 2021 and 2023. Dr Troy Baisden is the current co-President of the NZAS.

References

Baisden, T., Stevens, C., Curran, T., Macinnis-Ng, C., Plank, N., Masters, S., Hendy, S., Jones, E. and Hickford, J. (2020), 'Open Letter Regarding Massey University's Cuts to Science from the Presidents of New Zealand's Scientific Societies'.

 $https://drive.google.com/file/d/1rpo0wEDO0W9-WLq\\ QqG3Stt7 L5pzpEt4/view$

Education and Workforce Committee (2020 a), 'Petition of Gaven John Martin: Conduct an inquiry into science education at Massey University's Albany campus'.

https://selectcommittees.parliament.pg/y/6/c128d119-d

 $https://selectcommittees.parliament.nz/v/6/c128d119-d\\00e-47b4-8da8-ce7eba43bdea$

Education and Workforce Committee (2020b), 'Petition of Gaven John Martin: Conduct an inquiry into science education at Massey University's Albany campus'.

https://www.facebook.com/EWSCNZ/videos/petition-of-gaven-john-martin-conduct-an-inquiry-into-science-education-at-masse/652854048615857/

Ellingham, J. (2023), 'Massey University staff present 'logical' alternative plan to job cuts', RNZ .

https://www.rnz.co.nz/national/programmes/checkpoint/audio/2018916302/massey-university-staff-present-logical-alternative-plan-to-job-cuts

Heagney, G. (2023), 'Questions raised over future of Massey's new Innovation Complex building', Stuff. https://www.stuff.co.nz/national/education/300997202/questions-raised-over-future-of-masseys-new-innovation-complex-building

Massey University (2023), 'Te Kunenga ki Pūrehuroa Annual Report 2023'.

 $https://www.massey.ac.nz/documents/1961/Massey_U\\niversity_Annual_Report_2023.pdf$

Ministry of Education (2020), 'Education and Training Act 2020'.

 $https://www.legislation.govt.nz/act/public/2020/0038/l \ atest/LMS170676.html$

Morton, J. (2021), 'Scientists challenge financial case for Massey shake-up', $The\ New\ Zealand\ Herald$.

https://www.nzherald.co.nz/nz/scientists-challenge-fin ancial-case-for-massey-shake-up/X4W4VP33EOHXSK AECGBL3SCXKY/

Morton, J. (2023a), '71 jobs proposed to go as Massey University moves ahead with cost-cutting restructure', The New Zealand Herald.

 $https://www.nzherald.co.nz/nz/71-jobs-to-go-as-masse\\ y-university-moves-ahead-with-cost-cutting-restructure\\ /5VNB64JZIFHM7C3YFINA27XPI4/$

- Morton, J. (2023b), 'More than 60 jobs to go as Massey University confirms science cuts', The New Zealand Herald.
 - $https://www.nzherald.co.nz/nz/more-than-60-jobs-to-g\\ o-as-massey-university-confirms-science-cuts/BT2GHK\\ ULVZHETKAABYAHJD3KUA/$
- The University of Auckland (2023), 'Key Statistics 2023'. https://www.auckland.ac.nz/assets/about-us/our-ranking-and-reputation/key-statistics/018-24-key-stats-2023-v3.pdf
- Tuckey, K. (2018), 'Massey's Albany campus student growth surpasses Manawatū numbers', *Stuff*.
 - https://www.stuff.co.nz/national/103793835/masseys-a lbany-campus-student-growth-surpasses-manawat-num bers
- Whalley, P. W. F. and Evans, G. R. (1998), 'The University Visitor An Unwanted Legacy of Empire or a Model of University Governance For The Future', *Macarthur Law Review*.
 - $https://classic.austlii.edu.au/au/journals/MacarthurLa\\ wRw/1998/6.html$