



Briefing Note: Embargoed results of the 2020 QS World University Rankings by Subject

To:	Hon Chris Hipkins, Minister of Education		
Date:	2 March 2020	Priority:	High
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Purpose of Report

The purpose of this paper is for you to:

Note the analysis of the results of the 2020 Quacquarelli Symonds (QS) World University Rankings by Subject.

Summary

- The 2020 QS World University Rankings by Subject will be published on Wednesday 4 March at 9.00am, New Zealand time.
- QS have provided the results and an associated press release to the Ministry of Education under embargo, and they must not be shared until the public release of the rankings.
- Following an overall decline by New Zealand universities in the 2019 edition of the QS World University Rankings by Subject, there has been a slight improvement in performance in the 2020 edition.
- In 2020, there were 168 instances where New Zealand universities were ranked by QS across 48 subject areas. This compares with 166 across the same subject areas in 2019.
- In subject areas where universities were listed in both 2019 and 2020, there were 32 instances where a subject ranking improved for New Zealand universities, compared with 29 instances where a subject ranking declined. There were also nine instances where a subject was ranked for the first time. The ranking for the remaining 98 out of 168 subjects remained unchanged from the previous year.

- The QS press release highlights that the performance of the New Zealand higher education system has begun to stabilise after repeated regressive results in previous years.
- In previous years, the release of the QS subject-level results has generated media coverage in New Zealand, so your office may be asked for comment.
- The Ministry will publish an updated factsheet on the QS World University Rankings by Subject results on the Education Counts website.

Proactive release

Agree that this Briefing will be proactively released after the publication of the rankings.

Agree / Disagree



Andy Jackson
**Group Manager, Tertiary Education
Graduate Achievement, Vocations and Careers**

02/03/2020



Hon Chris Hipkins
Minister of Education

10/3/20

Background

1. The Ministry of Education monitors the release of international university rankings throughout the year. We brief you on the rankings because:
 - they are sometimes covered by the New Zealand media and the media may seek ministerial comment on the performance of the New Zealand universities
 - in the past, individual universities, Universities New Zealand, and Education New Zealand, have used the results of the rankings (for example, in marketing for international students).

How important is this ranking?

2. The QS World University Rankings by Subject are a derivative of the high profile QS World University Rankings. The data gathered as part of the process to determine the overall rankings (which were released on 19 June 2019) is used by QS to generate subject-level rankings.
3. The QS subject rankings use up to four indicators to generate university rankings in 48 narrow subject areas. These include: a survey of academics, a survey of employers, the average number of citations per publication (excluding self-citations), and the calculation of an H-index¹.
4. The weighting applied to each of these indicators to generate a final ranking varies depending on the subject area. Some subjects (such as Modern languages) do not use citations to generate a final ranking. The reason for this variation in weighting is that subjects with a focus on publishing research in journals are more suited to citations analysis.
5. QS publishes the rankings of the top 600 universities in broad subjects (such as Computer Science & Information Systems) but publishes the rankings of the top 50 universities in more specialised subject areas (such as Dentistry) where fewer universities meet the thresholds for inclusion.
6. Individual rankings are published for the 50 top performing universities in each subject. For universities placed 51 or over, the rankings are published in bands.
7. QS have indicated that postgraduate students are the most likely audience for the subject rankings.
8. Many of the criticisms of the main QS World University Rankings apply to the offshoot subject rankings. Key criticisms include the use of academic and employer surveys and the subjective use of weightings to determine an overall ranking in each subject area.
9. In previous years, the release of the QS subject-level results has generated media coverage in New Zealand, so your office may be asked for comment.

¹ The H-index is based on the set of a university department's most cited journal papers and the number of citations that they have received in other publications. It is an attempt to measure both the impact and productivity of published journal articles.

Release of the 2020 results

10. The 2020 QS World University Rankings by Subject will be published on Wednesday 4 March 2020 at 9.00am, New Zealand time. The Ministry of Education has received a copy of the results and an associated press release from QS under embargo. They must not be shared until the public release.
11. We will share this briefing with the Tertiary Education Commission, the Ministry of Business, Innovation and Employment, the New Zealand Qualifications Authority and Education New Zealand before the results are published.
12. We will publish an updated factsheet on the QS World University Subject Rankings on the Ministry's Education Counts website after the public release of the results.

The 2020 QS World University Rankings by Subject results

13. Following an overall decline by New Zealand universities in the 2019 edition of the QS World University Rankings by Subject, there has been a slight improvement in performance in the 2020 edition.
14. The results show that in 2020:
 - a. There were 168 instances where New Zealand universities were ranked by QS across 48 subject areas. This compares with 166 across the same number of subject areas in 2019.
 - b. All eight New Zealand universities had at least one subject ranked by QS. Of the New Zealand institutions, the University of Auckland had the most subject areas ranked by QS (40 out of 48).
 - c. In subject areas where universities received a ranking in both 2019 and 2020, there were 32 instances where a subject ranking improved for New Zealand universities, compared with 29 instances where a subject ranking declined. There were also nine instances where a subject at a New Zealand university was a new entrant to the ranking. The ranking for the remaining 98 out of 168 subjects remained unchanged from the previous year.
 - d. There were 23 instances where a New Zealand university achieved a top 50 ranking, compared with 20 in 2019. Five out of the eight universities had at least one top 50 ranking.
 - e. New Zealand universities were ranked in 47 out of the 48 subject areas. The subject where New Zealand universities was not ranked was Engineering – Mineral & Mining.
 - f. The University of Otago received the highest ranking of a New Zealand university (13) in Sports-related Subjects, followed by Victoria University of Wellington (20) in Library & Information Management.
 - g. The full results for 2020 are presented in Table 1.
 - h. There were fewer instances where Australian universities received a subject ranking from QS. In the 2020 edition, there were 662 instances of an Australian university being ranked, compared with 666 in 2019.

- i. In just one of the 48 subjects was a New Zealand university ranked first among Australasian universities. This was Victoria University of Wellington in the subject area of Library & Information Management.

Proactively Released

Table 1: 2020 QS World University Rankings by Subject for New Zealand universities

Faculty	Subject (number of rankings listed by QS)	University of Auckland	University of Otago	Victoria University of Wellington	University of Canterbury	Massey University	Auckland University of Technology	University of Waikato	Lincoln University
Arts & Humanities	Archaeology (Top 200)	25	51-100	101-150					
	Architecture / Built Environment (Top 200)	51-100		101-150		51-100	101-150		
	Art & Design (Top 200)	101-150	47=	101-150				151-200	
	Classics & Ancient History (Top 50)	39	101-150	51-100	201-250				
	English Language & Literature (Top 300)	51-100	101-150	101-150					
Engineering & Technology	History (Top 200)	51-100	251-300	51-100	51-100				
	Linguistics (Top 300)	51-100	201-250	101-150	201-250				
	Modern Languages (Top 300)	32	51-100	51-100					
	Performing Arts (Top 100)	43=	51-100	51-100	151-200				
	Philosophy (Top 200)		51-100						
Life Sciences & Medicine	Theology, Divinity & Religious Studies (Top 100)								
	Computer Science & Information Systems (Top 600)	51-100	251-300	201-250	251-300	401-450	401-450	251-300	
	Engineering – Chemical (Top 400)	101-150			201-250	251-300			
	Engineering – Civil & Structural (Top 200)	39=			51-100		451-500		
	Engineering – Electrical & Electronic (Top 500)	51-100		351-400	201-250	401-450	451-500		
Natural Sciences	Engineering – Mechanical, Aeronautical & Manufacturing (Top 500)	101-150			301-350				
	Engineering – Mineral & Mining (Top 50)								
	Agriculture & Forestry (Top 400)	51-100				29			51-100
	Anatomy & Physiology (Top 100)	101-150	45	401-450	301-350	251-300			
	Biological Sciences (Top 600)		151-200						
Social Sciences & Management	Dentistry (Top 50)	51-100	33=						
	Medicine (Top 600)	44	51-100						
	Nursing (Top 100)	27	101-150			28=			
	Pharmacy & Pharmacology (Top 300)								
	Veterinary Science (Top 50)								
Total subjects ranked	Chemistry (Top 600)	101-150	251-300	351-400	301-350	501-550			
	Earth & Marine Sciences (Top 200)	51-100	51-100	51-100	101-150			351-400	301-350
	Environmental Sciences (Top 400)	51-100	151-200	251-300	151-200	201-250			
	Geography (Top 200)	30	101-150	51-100	101-150	151-200			
	Materials Science (Top 400)	151-200							
Total subjects ranked	Mathematics (Top 500)	51-100	301-350	251-300	351-400	301-350			
	Physics & Astronomy (Top 600)	151-200	401-450	401-450	201-250	501-550			
	Accounting & Finance (Top 300)	51-100	151-200	101-150	101-150	151-200	101-150	201-250	
	Anthropology (Top 100)	45	51-100						
	Business & Management Studies (Top 500)	51-100	151-200	201-250	201-250	251-300	201-250	251-300	
Total subjects ranked	Communication & Media Studies (Top 200)	51-100	151-200	101-150		101-150	101-150	151-200	
	Development Studies (Top 100)	51-100	51-100			51-100			
	Economics & Econometrics (Top 500)	51-100	151-200	151-200	201-250	201-250	251-300	251-300	
	Education (Top 300)	27	51-100	101-150	151-200	101-150		101-150	
	Hospitality & Leisure Management (Top 50)			50			34		
Total subjects ranked	Law (Top 300)	50=	101-150	51-100	101-150				
	Library & Information Management (Top 50)			20					
	Politics & International Studies (Top 200)	51-100	151-200	51-100	151-200	201-250			
	Psychology (Top 300)	40	51-100	51-100	201-250				
	Social Policy & Administration (Top 100)	51-100	201-250	151-200	151-200	201-250	35=	201-250	
Total subjects ranked	Sociology (Top 300)	29=							
	Sports-related Subjects (Top 100)		13						
	Statistics & Operational Research (Top 200)	40	34	29	24	20	10	9	2

QS World University Rankings by Faculty

15. As well as publishing rankings for 48 narrow subjects, QS also publishes the results for five broad faculty areas. The ranking for each of the New Zealand universities in these faculty areas is presented in Table 2.

Table 2: 2020 QS World University Rankings by Faculty Area for New Zealand universities

Faculty	University of Auckland	University of Canterbury	University of Otago	Victoria University of Wellington	Massey University	University of Waikato	Auckland University of Technology	Lincoln University
Arts & Humanities	57	269=	173	68=	366=	329=	401-450	
Engineering & Technology	100=	240=	401-450	401-450				
Life Sciences & Medicine	94=	451-500	94=		359		451-500	
Natural Sciences	120=	223=	295=	370=	451-500			
Social Sciences & Management	63=	220=	188=	137=	269=	320=	320=	

QS press release

16. Along with the embargoed results, QS provides commentary on the results in a press release tailored for the New Zealand market.
17. The commentary by QS highlighted:
- that the performance of the New Zealand universities had stabilised after regressing in previous years
 - the performance of individual New Zealand universities and which departments had performed well nationally and why.
18. There is an error in the QS press release. They state that there were 22 occasions where a university department was ranked in the top 50. The actual number is 23. QS have been advised of the error.
19. The full text of the press release is presented in Annex 1.

Annexes

Annex 1: QS press release

Proactively Released



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Latest global university rankings: New Zealand's institutions staunch the bleeding

London, 4th March 2020: After repeatedly regressive results, the performance of New Zealand's higher education sector has begun to stabilize, according to the tenth edition of the *QS World University Rankings by Subject*. The results see New Zealand's leading university – the University of Auckland – rank in 40 of the 48 discipline-specific subject tables compiled by QS. This tally is bettered by only twelve universities across the world.

QS's dataset provides independent information about the performance of 168 of New Zealand's university programs, offered by eight of the nations' higher education institutions. University departments are ranked according to their academic standards, graduate employability, and research performance: three key pillars of each institution's mission. Of those 168 programs, 32 improve their rank, while 29 have dropped down the tables this year. The majority – 98/168 – have remained stable within their rank or band, while 9/168 are new entrants into the rankings this year.

Jack Moran, QS Spokesperson, said: "While the performance of New Zealand's institutions may seem unremarkable, it is crucial to note that 74 of New Zealand's departments dropped in last year's edition of the tables. To reduce this number to a third of its previous total represents progress for the nation's sector. So, too, does the increase in the number of programs achieving a top-50 rank from 20 to 23. This enables New Zealand – as a sector – to rank 18th globally according to the number of top-50 programs each nation possess."

The rankings, compiled by global higher education analysts QS Quacquarelli Symonds, provide authoritative comparative analysis on the performance of **13,138 individual university programs**, taken by students at **1368 universities** which can be found in **83 locations across the world**, across 48 academic disciplines and five broad Faculty Areas.

For more information about this release, including a full list of New Zealand's featured programs, please contact Jack Moran, QS Public Relations Executive, at jack@qs.com or at +44 7714 209 834.

Executive Summary: New Zealand

- New Zealand's highest-ranked department is the University of Otago's *Sports-Related Subjects* department. It ranks 13th globally, having risen seven places year-on-year;



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- This lofty placing is primarily attributable to the department's research performance: it scores 90.9/100 for QS's *Citations per Paper* indicator, which measures institutional research impact, adjusted for departmental production rates;
- Victoria University of Wellington also achieves a top-twenty position. Its *Library & Information Management* has risen four places year-on-year, and now ranks 20th;
- Across the 48 tables, 22 of New Zealand's programs feature among the global top-50 in their discipline. This represents a year-on-year improvement, with five of New Zealand's departments rising into the top-50 this year (see below for full list of NZ's top-50 programs);
- The University of Auckland is responsible for over half of New Zealand's top-50 departments (12 of 22). This is one fewer than last year, however, after its *Linguistics* program dropped from 46th into the 51-100 group;
- The remainder of New Zealand's top-50 programs are divided between the University of Otago (4), Auckland University of Technology (2), Massey University (2), and Victoria University of Wellington (2);
- According to hiring managers across the world surveyed by QS, the University of Auckland's *Anatomy & Physiology* department produces the nation's most employable graduates. The program receives a nation-leading mark of 92.6/100 for QS's *Employer Reputation* indicator, which measures the sentiment of employers across the world regarding the employability and competence of each department's graduates;
- The country's top research department is the University of Auckland's *Pharmacy & Pharmacology* team, which has attained a nation-leading score of 99.5/100 for QS's *Citations per Paper* indicator, which measures the research impact of each department according to the impact of their publications. This score is also sufficient to make the University of Auckland's *Pharmacy & Pharmacology* program the world's third-best for research.

QS World University Rankings by Subject: New Zealand's Top-50 Programs

2020	2019	Institution	Subject
13	20	University of Otago	Sports-related Subjects
20	24	Victoria University of Wellington	Library & Information Management
25	23	The University of Auckland	Archaeology
27	30	The University of Auckland	Pharmacy & Pharmacology
27	26	The University of Auckland	Education
28=	29	Massey University	Veterinary Science
29	30	Massey University	Agriculture & Forestry
29=	41	The University of Auckland	Sports-related Subjects
30	28	The University of Auckland	Geography
32	51-100	The University of Auckland	Performing Arts
33=	34=	University of Otago	Dentistry



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34		Auckland University of Technology	Hospitality & Leisure Management
35=	30=	Auckland University of Technology	Sports-related Subjects
39	38	The University of Auckland	English Language & Literature
39=	37=	The University of Auckland	Engineering - Civil & Structural
40	50=	The University of Auckland	Psychology
43=	41	The University of Auckland	Philosophy
44	36	The University of Auckland	Nursing
45	51-100	University of Otago	Anatomy & Physiology
45	49	The University of Auckland	Anthropology
47=		University of Otago	Classics & Ancient History
50		Victoria University of Wellington	Hospitality & Leisure Management
50=	44	The University of Auckland	Law

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Methodology

QS use four key metrics to compile the rankings. The precise weighting of each metric varies by subject to reflect differing publication cultures across disciplines. For example, research performance is deemed to be a stronger indicator of institutional strength in *Medicine*, where the discipline is highly reliant on dissemination of research, than it is in *Performing Arts*, where the discipline is more vocational in nature.

1. **Academic Reputation** – which institutions are most-highly regarded by the global academic community? The scores for this indicator are based on over 94,000 responses to QS's *Academic Survey* – the world's largest repository of global academic sentiment;
2. **Employer Reputation** – which institutions are regarded by the world's hiring managers as nurturing the most talented, hireable graduates? The dataset for this indicator is derived from insights offered by over 44,000 hiring managers – the world's largest repository of informed employer opinion about graduate strength;
3. **Citations per Paper** – which institutions are having the strongest impact on research in their field? This indicator accounts for the distribution of 162 million research citations deriving from 22.5 million research papers, indexed by Elsevier's Scopus database. To account for divergences in institutional size, QS do not measure raw citation counts – which favours larger institutions – but divide the number of citations received on an institution's research papers by the number of papers produced across a five-year window.
4. **H-Index** – how productive are an institution's research faculty? The h-index is a way of measuring both the productivity and impact of the published work of a scientist or scholar. The index is based on the set of the academic's most cited papers and



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the number of citations that they have received in other publications.

More methodological information can be found at <https://www.TopUniversities.com/subject-rankings/methodology>.

The full rankings will launch on **Wednesday 4th March at 09:00 NZST** and can be found at <https://www.TopUniversities.com/subject-rankings/2020>.

-Ends-

Notes for Editors

QS Quacquarelli Symonds

QS Quacquarelli Symonds is the world's leading provider of services, analytics, and insight to the global higher education sector, whose mission is to enable motivated people anywhere in the world to fulfil their potential through educational achievement, international mobility, and career development.

The *QS World University Rankings* portfolio, inaugurated in 2004, has grown to become the world's most popular source of comparative data about university performance. Their flagship website, www.TopUniversities.com – the home of their rankings – was viewed 149 million times in 2019, and over 94,000 media clippings pertaining to, or mentioning, QS were published by media outlets across the world in 2019.

About Scopus info.scopus.com

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2020 QS World University Rankings by Subject release - reactive lines

General information

- The QS World University Rankings by Subject publishes rankings of universities across 48 subject areas. It is published annually.
- The subject rankings are a derivative of the high profile QS World University Rankings. The data gathered as part of the process to determine the overall QS rankings (which were released on 19 June 2019) is used by QS to generate subject-level rankings.
- The QS subject rankings use up to four component indicator measures to generate university rankings. These include: a survey of academics, a survey of employers, the average number of citations per publication (excluding self-citations), and the calculation of an H-index¹.
- The number of indicators and the weighting applied to them varies across the 48 subject areas. The citation-based measures are used in subject areas where there is more of a focus on publication in journals.
- Individual rankings are published for the 50 top performing universities in each subject. For universities placed 51 or over, the rankings are published in bands, e.g. 51-100.

Qualifications on the results

- The issues that apply to the main QS World University Rankings also apply here. A significant proportion of the rankings is based on surveys of academics and employers, and so may capture perceptions rather than actual performance.
- The published rankings outside the top 50 are listed only as bands of institutions, e.g. 51-100.

Overall comment on findings

- New Zealand universities have slightly improved their performance in the 2020 QS World University Rankings by Subject compared with 2019.
- As QS notes in its media release for the New Zealand results, the improvement in performance in the 2020 edition represents progress for the sector. It also noted that the increase in the number of programmes achieving a top-50 rank enables New Zealand – as a sector – “to rank 18th globally according to the number of top-50 programmes each nation possess”.

The 2020 results show that:

- a. There were 23 instances where a New Zealand university achieved a top 50 ranking, compared with 20 in 2019. Five out of the eight universities had at least one top 50 ranking.

¹ The H-index is based on the set of a university department's most cited journal papers and the number of citations that they have received in other publications. It is an attempt to measure both the impact and productivity of published journal articles.

- b. In subject areas where universities received a ranking in both 2019 and 2020, there were 32 instances where a subject ranking improved for New Zealand universities, 29 instances where a subject ranking declined, and 98 instances where the ranking remained unchanged. There were also nine instances where a subject at a New Zealand university was a new entrant to the ranking.
- c. There were 168 instances where New Zealand universities were ranked by QS across 48 subject areas. This compares with 166 across the same number of subject areas in 2019.
- d. All eight New Zealand universities had at least one subject ranked by QS. Of the New Zealand institutions, the University of Auckland had the most subject areas ranked by QS (40 out of 48).
- e. New Zealand universities were ranked in 47 out of 48 subject areas. The subject where New Zealand universities was not ranked was Engineering – Mineral & Mining.
- f. The University of Otago received the highest ranking of a New Zealand university (13) in Sports-related Subjects, followed by Victoria University of Wellington (20) in Library & Information Management.

Context of results in higher profile rankings systems

- These results should be looked at in the context of three high profile university rankings systems: the Times Higher Education (THE) World University Rankings, the QS World University Rankings and the Academic Ranking of World Universities (ARWU).
- The last THE World University Rankings reported that two universities improved in ranking, four remained unchanged, and two declined in ranking.
- The last QS World University Rankings reported that five of the eight New Zealand universities improved their ranking while three declined in ranking.
- The last ARWU reported that two New Zealand universities had declined in ranking, one improved in ranking, while five remained the same.
- Overall these results suggest that there is some stability in performance by New Zealand universities in what is a very competitive marketplace.