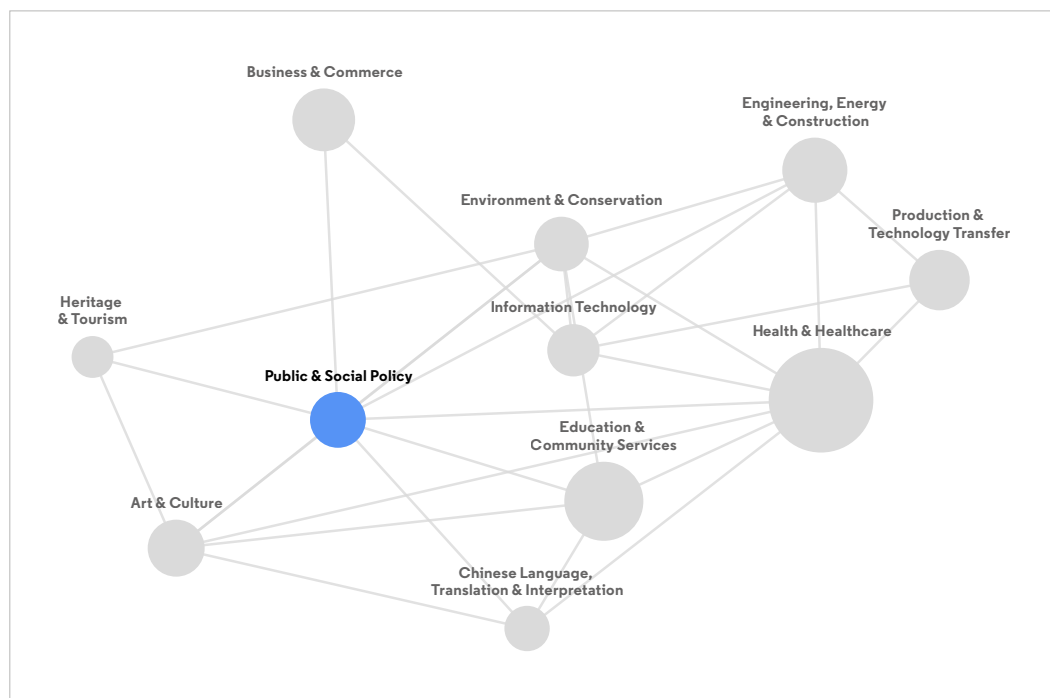




The societal impact of research undertaken by Hong Kong universities:

Public & Social Policy

A synthesis of the RAE 2020 impact case studies



Partnered with:



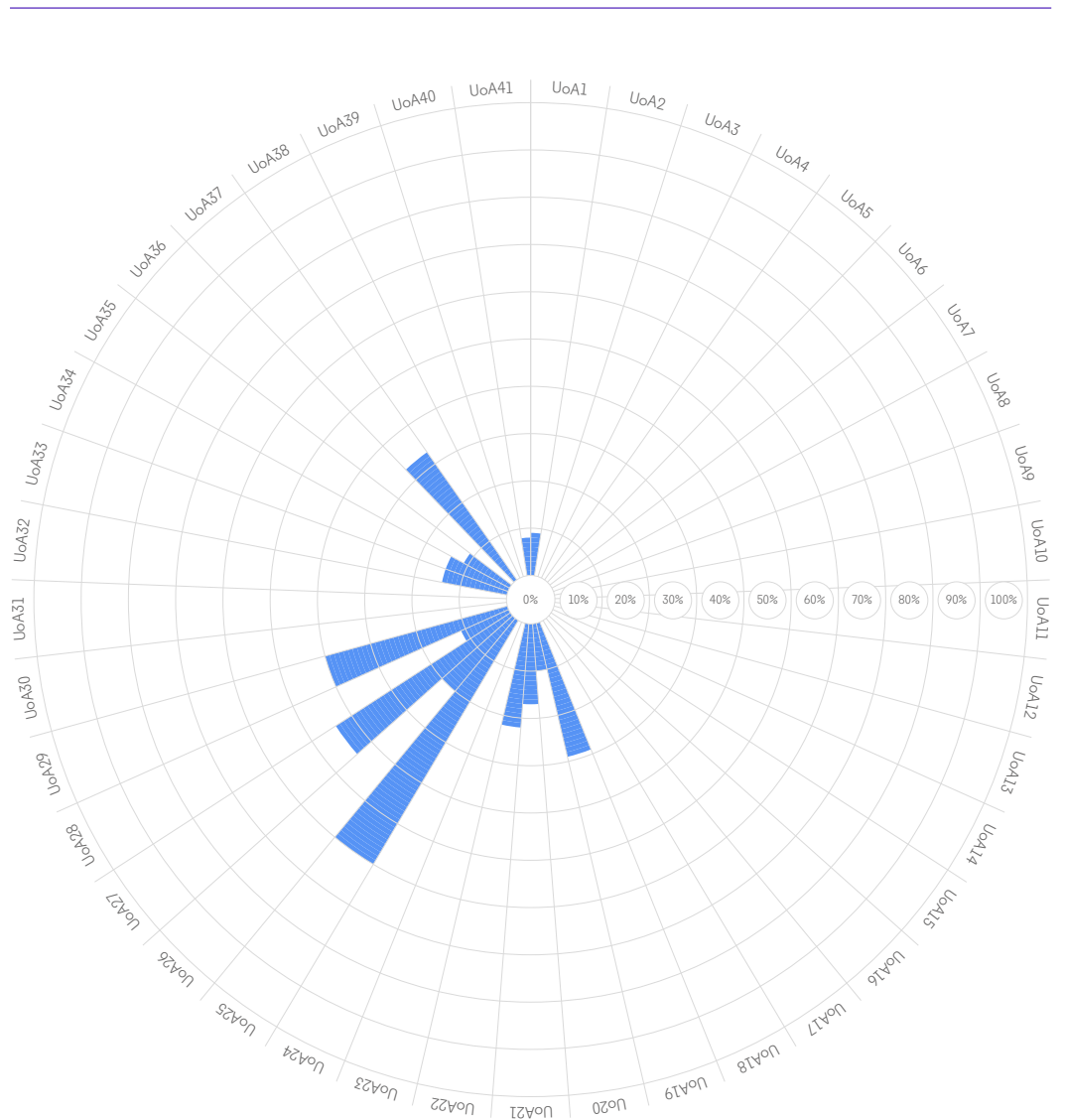
This report is part of a series of outputs that examines the impact of research arising from eight universities based in Hong Kong and funded by the University Grants Committee (UGC). The report focuses on the Impact Case Studies (ICS) produced by the UGC-funded universities as part of their response to a Research Assessment Exercise (RAE) in 2020. The overarching report - *The impact of research undertaken by universities in Hong Kong: A synthesis of the RAE 2020 impact case studies* – is accompanied by 11 thematic reports that examine the nature of research impact in different areas, ranging from Arts & Culture to Health & Healthcare. The 342 impact case studies that are analysed through this body of work are also available on a searchable database that is posted on the UGC’s website.

The Public & Social Policy cluster contains 31 impact case studies (ICS) from two primary topics identified in the topic modelling.¹ The Public & Social Policy cluster represents 9% (i.e. 31/342) of ICS submitted to RAE 2020.

The impact wheel in Figure 1 illustrates how the Public & Social Policy is distributed across the 41 Units of Assessment (UoAs) used for RAE 2020. For example, for UoA 25 (political science) six of the ten (60%) of the ICS submitted to this field were in the Public & Social Policy cluster. Likewise, for UoA 27 (sociology & anthropology) four of the nine (44%) ICS were grouped in this cluster.

The other UoAs in the Public & Social Policy cluster included: UoA 1 (biological sciences); UoA 19 (law); UoA 20 (accountancy); UoA 21 (economics and finance); UoA 22 (business); UoA 25 (political science); UoA 26 (geography); UoA 27 (sociology & anthropology); UoA 28 (social work and social policy); UoA 29 (communications & media studies); UoA 33 (linguistics & language studies); UoA 34 (history); UoA 35 (area studies, cultural studies and other arts/ humanities); UoA 37 (religious studies); and UoA 41 (education). One of the features of this cluster is its relative heterogenous spread across UoAs as illustrated in Figure 1 with 15 of 41 UoAs contributing to this cluster of ICS.

Figure 1: Impact wheel for the Public & Social Policy cluster (n=31)



¹ See methodological annex for details.

The impact of Hong Kong universities' research: **Public & Social Policy**

Table A shows the most salient features of the case studies in terms of beneficiaries, location, type of impact and time lag. It gives the percentage of case studies in this cluster that were tagged with sub-codes under these code headings, as well as the percentage of case studies tagged with those sub-codes in the entire sample of 342.

The 31 case studies in this cluster benefited three key sectors under the classification of the Hong Kong Standard Industrial Classification: Public administration (77%), Human health and social work activities (26%) and Education (13%). The key socioeconomic group noted in the ICS were the elderly (10%), citizens /communities (6%) and women and gender-based groups (6%). The key decision taker groups that were involved were government departments/agencies (55%), NGOs/third sector (23%) and think tanks (19%). Beyond Hong Kong (77%) and Mainland China (13%), these case studies primarily had an impact in the United States (19%) and the United Kingdom (16%). The most salient type of impact was informing procedure, practice, or protocol (55%), informing government policy (55%), advancing policy debate (48%), and changing public attitudes, behaviours

or knowledge (48%). On average, the research in this cluster was started in 2005, compared to 2006 for the whole sample. The median publication date for this cluster was 2015, mirroring the whole sample (2015).

As illustrated by the impact wheel (Figure 1), this cluster was one of the more heterogeneous set that we read. Consequently, there were a diverse range of impacts including: on science policy for Alzheimer's research, the development of an entrepreneurial ecosystems in the Great Bay Area, the role of the gaming industry and e-sports in Asia, long-term support for the elderly and the governance of social enterprises. But on pages 6 and 7 we have reviewed the ICS using a generic 'policy cycle' of raising awareness, informing social policy, and providing advice on legal and statutory matters.

Table A: Some salient features of research impact identified in the Public & Social Policy cluster (n = 31)

Beneficiaries of impact (top mentions)	% of <u>cluster</u> impact case studies	% of <u>all</u> impact case studies
Hong Kong Standard Industrial Classification		
Public administration	77%	14%
Human health and social work activities	26%	34%
Education	13%	18%
Sociodemographic group		
Elderly	10%	4%
Citizens/communities	6%	17%
Women and gender-based groups	6%	4%
Decision taker group		
Government departments/agencies	55%	31%
NGOs/third sector	23%	17%
Think Tanks	19%	3%
Location of impact		
	% of <u>cluster</u> impact case studies	% of <u>all</u> impact case studies
Hong Kong	77%	75%
Greater Bay Area (excluding Hong Kong)	0%	3%
Mainland China (excluding Hong Kong and GBA)	13%	12%
United States	19%	32%
United Kingdom	16%	17%
Type of impact (top mentions)		
	% of <u>cluster</u> impact case studies	% of <u>all</u> impact case studies
Inform procedure, practice or protocol	55%	52%
Inform government policy	55%	23%
Advance policy debate	48%	13%
Change public attitudes, behaviours or knowledge	48%	30%
Elapsed time		
	<u>Cluster</u>	<u>All</u>
Median year of research commencement	2005	2006
Median year of publication date	2015	2015

Raising public awareness

An interesting example of where researchers have raised public awareness on an issue is around 'lean washing' - that is where the food industry deflects attention from overconsumption as the cause of obesity to that of lack of exercise. Researchers at The Hong Kong University of Science and Technology asked the public what the causes of obesity were and showed that those who believed it was due to a lack of exercise to be the primary cause were more likely to be overweight. They then analysed food industry messaging and found that it has been consistently and overwhelmingly focused on either exercise or a 'balanced' lifestyle, almost never mentioning poor diet as the main cause of obesity. In addition to sharing the findings of this research to policy makers and industry, the research contributed to a wider public debate and raising awareness. For example, the Times of India (approx. readership: 13 million) identified the link between exercise and obesity as the "#1 idea that should die with 2016", "because research on weight loss and exercise says that the extra calories you burn account for a small part of your total energy spend. Cutting diet is a more efficient way to lose weight". Another group of researchers from The Hong Kong University of Science and Technology focused on telemarketing and specifically unwanted nuisance calls. The research introduced a new concept called 'marketing avoidance'. Direct marketing imposes a negative effect on consumers, who avoid marketing in two ways - concealment and deflection. Real-life examples of concealment include opt-out schemes, such as do-not-call (DNC) registration, and using unlisted telephone numbers. Examples of deflection include filtering calls using caller-ID and removing online advertisements with pop-up blockers. By publicly reflecting the concerns of consumers in various newspapers and other media channels the researchers showed that there

were potential solutions to the growing problem of unsolicited marketing calls leading, in part, to a public policy debate and proposed legislation being introduced in Hong Kong.

An example of an ICS that contributed to the policy debate on healthcare reform and financing in Mainland China and Hong Kong came from The Education University of Hong Kong. Both face challenges of increasing healthcare costs as they seek to meet demand from a more prosperous and ageing population, and a surge in non-communicable diseases. A key policy document on healthcare reform from the World Bank, WHO and the Chinese government extensively cited the research from The Education University of Hong Kong and contributed to a public debate that informed the Chinese State Council's Five-Year Plan (2016-2020). In a related area research from The Chinese University of Hong Kong, examined the impact of Mainland China's one child policy and showed that its impact on human capital - for example the health and education outcomes of children - were modest and that it had in fact had adverse effects on a number of other indicators including crime rates. The research contributed to a public debate on the one child policy, including in mainstream media and, although difficult to attribute the research to a policy change, the debate resulted in a move to a two-child policy.

Informing social policy

There were a number of ICS that illustrated how researchers in Hong Kong have informed social policy across a diverse range of sectors, at the international, national and local levels. For example, one ICS documented the rise of 'shadow education systems', that is when parents pay for additional tutoring alongside their children's standard education. Much of this work was conducted through the UNESCO Chair in Comparative

Education awarded to The University of Hong Kong in 2011. The research prompted and informed global debate at forum hosted by both UNESCO and the Commonwealth and, partly as a result of that awareness raising, led to policy interventions in a number of countries including Cambodia and Mainland China. Policy included the formalisation and self-regulation of the shadow education system. At the national level there were several interesting examples worth highlighting. For example, building on the education theme, there were two ICS - one from The University of Hong Kong and the other from The Hong Kong University of Science and Technology - that describe the same project examining social mobility of university applicants in Mainland China. The researchers painstakingly collated more than 150,000 student registration records at two major Chinese universities - Peking University and Suzhou University - over more than 50 years. The research appeared at a time when there was a public debate about college admissions at top universities in Mainland China and the role of the country's entrance examination (gaokao). There were a number of proposals for alternative recruitment and selection processes, but the research showed under the gaokao system, larger proportions of students from modest origins attended top universities in Mainland China than was the case in the United States or United Kingdom. Although hard to fully attribute, after this evidence became known the proposed reforms to gaokao were stopped.

A very different example came from an ICS on electoral reform focused on Hong Kong's unique use of a functional constituency (FC) process which elected half of the Hong Kong legislature. It is a much under-studied process and it focuses voting rights on professional and special interest groups. The research on FCs informed political debate and contributed to electoral reform in extended franchise for FCs from 240,000 electors to all

the 3.5 million voters in Hong Kong. It gave all voters over 18 an extra vote for legislators in the 2012 and 2016 elections, and hence widened participation and impacted political parties and legislators' behaviours. An example of a local level impact comes from a researcher at City University of Hong Kong whose long-term interests have been in examining the relationship between central and local governments in Mainland China. The researcher developed an analytical framework to make sense of the complex power dynamics in China's large, authoritarian governance system, and the concept of 'co-agency' to highlight the autonomy of the local and central government actors. This framework attracted the attention of Guangdong officials keen on administrative reforms resulting in a series of workshops and discussions focused on improving the reform and administrative processes. This led to further work highlighting the importance of the pluralistic governance approach to the vision of Belt & Road and the Greater Bay Area (GBA) as a mechanism of reform rather than merely a venue of economic activity. As one beneficiary puts it: "Our successful cross-sectoral collaboration enables both of us to acquire a greater understanding of the policies and practices of the Belt and Road Initiative".

Advising on legal and statutory reform

There was a third group of ICS that focused on more formalised routes to policy reform including on the death penalty, hate spin and lustration. Research from City University of Hong Kong into the death penalty in the Asia-Pacific region had global reach. Recommendations from the researcher's submission to an Australian parliamentary inquiry were adopted into the country's

policy on advocating for an end to the death penalty worldwide. His work was highly cited in the final report of the Committee and can be clearly based to a number of recommendations that were accepted by the Australian Government. Another study – this time from the Hong Kong Baptist University – developed the concept of 'hate spin' which captures the twin strategy of incitement and manufactured outrage and through that conceptualises the idea of taking offence as a key tactic for agitating hate against different groups of people. This quite theoretical legal work was then used in a number of international fora including by the United Nation's Special Rapporteur on Freedom of Religion or Belief and went on to contribute to legal reform in Singapore. Specifically, 2019, the Singaporean government amended laws concerning religious hate and insult. As with most of the ICS around social policy it is not possible to demonstrate conclusively that this amendment was solely attributable to the research but given that the researcher gave extensive evidence to the Select Committee reviewing the issue it seems highly likely. The third, and final, example of an ICS advising on legal reform focuses on the restoration of trust in the administration of Ukraine in the aftermath of the political changes known as "Maidan Revolution" – that is the deposition in 2014 of the Russian-backed President Viktor Yanukovich. At the time there was a sentiment to cleanse the administration and judiciary of supporters of Yanukovich. Given this the USAID's Fair, Accountable, Independent and Responsible Judiciary Program (FAIR), invited the key researcher to Kyiv as an independent consultant to provide best practice expertise on a number of lustration initiatives. Lustration is the legal term for the process that seeks to cleanse a new regime from the practices of the past. Through a series of consultations, the researchers advised the new Ukrainian government on best practice in implementation and monitoring of lustration based on his experience and research of other countries.

The characteristics and translation of the underpinning research

Table B provides the salient features of the underpinning research. It provides bibliometrics as well as information on the impetus for the research and mechanisms/channels of dissemination.

65 outputs from this cluster are indexed on the Web of Science, which have a mean citation score of 3.10. This is lower than the mean score of 4.45 for the whole sample, most likely due to disciplinary differences. The median citation score is 1.64, which is higher than the median of 1.59 for all case studies. Key international collaborators included the United States (26%), Singapore

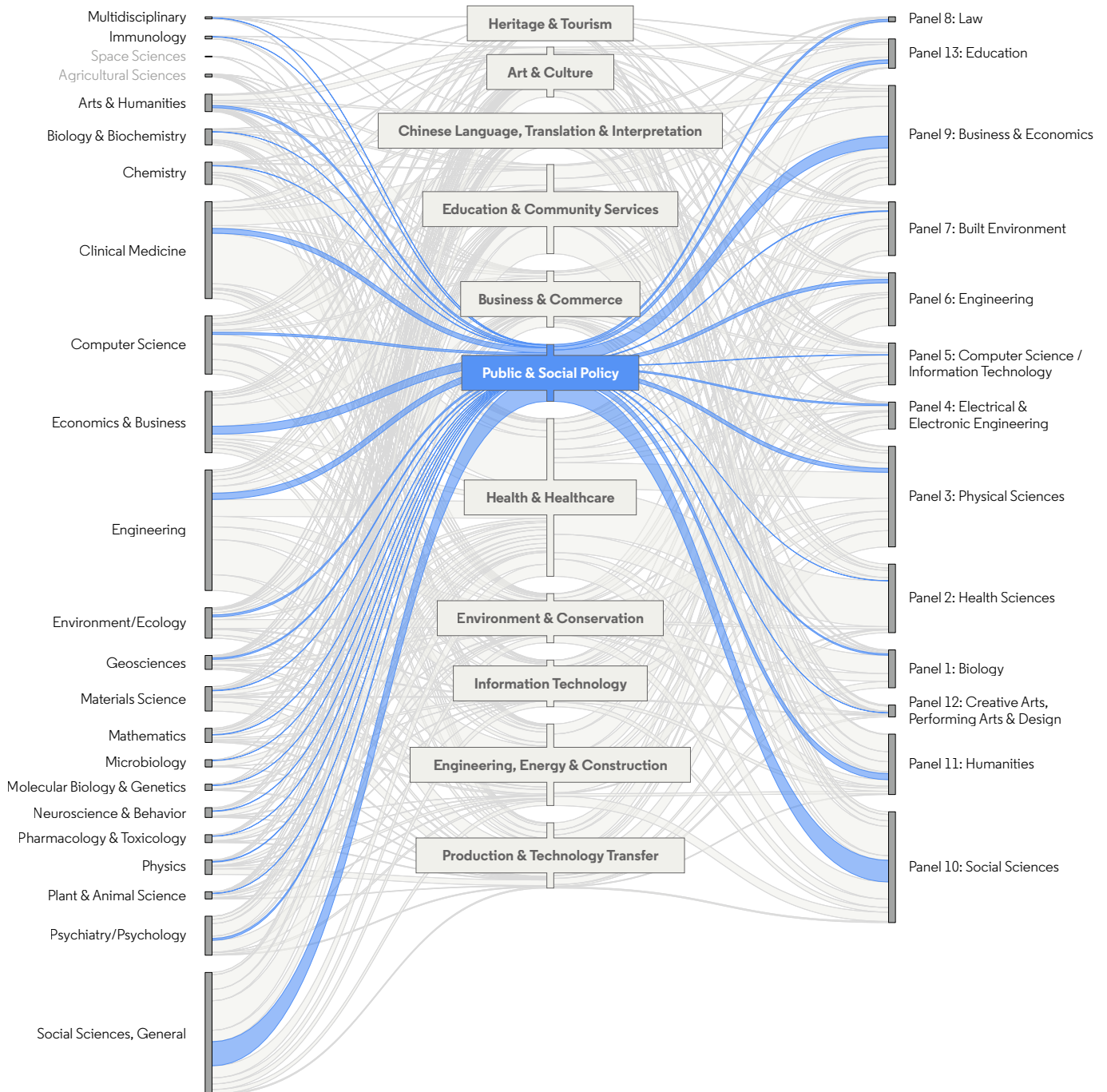
(9%), and the UK (7%). 16% of the research in this cluster were commissioned, and 6% were driven by researcher curiosity, while 3% were due to external advances creating new questions. The main forms of co-production and collaboration were academic and public sector partnership (13%) and academic and third sector partnership (10%). The researcher was involved in the impact by being referenced as an expert or advisor (45%) and by having their research output cited by the sector (13%). The research findings were disseminated primarily media coverage (68%) and non-academic presentation (58%), also garnering prizes and awards (10%).

Table B: Some salient features of the underpinning research identified in the Public & Social Policy cluster (n = 31)

Analysis of underpinning research	<u>Cluster</u> impact case studies	<u>All</u> impact case studies
Bibliometrics indicators		
Number of outputs indexed on Web of Science	65	1445
Mean citation score	3.10	4.45
Median citation score	1.64	1.59
Collaborators location (top mentions, excluding China)		
USA	26%	18%
Singapore	9%	3%
UK	7%	8%
Impetus for research (top mentions)	% of <u>cluster</u> impact case studies	% of <u>all</u> impact case studies
Pull factors		
Commissioned	16%	16%
Push factors		
Investigator initiated research (curiosity)	6%	12%
External advances creating new questions	3%	2%
Mechanisms/channels of impact (top mentions)	% of <u>cluster</u> impact case studies	% of <u>all</u> impact case studies
Coproduction & collaboration		
Academic - public sector partnership	13%	17%
Academic - third sector partnership	10%	8%
Researcher involvement		
Referenced as expert, practitioner or adviser	45%	33%
Published output cited by sector	13%	11%
Dissemination of research findings		
Media coverage	68%	48%
Non-academic presentation (incl public lecture)	58%	36%
Codification of impact eg prizes, patents etc.		
Prizes and awards	10%	33%

The alluvial diagram in Figure 2 links the underpinning research (as classified by discipline using the 23 Web of Science, Essential Science Indicators (ESI), journal categories) to the 11 clusters identified through the topic modelling and the 13 Panels used in RAE 2020. The Public & Social Policy cluster has been highlighted, with the impact pathways for the other clusters greyed out. Figure 2 illustrates the multidisciplinary nature of research impact; multiple journal categories feed into the cluster and the cluster contributes to ICS submitted to all RAE panels.

Figure 2: Alluvial diagram linking underpinning research with clusters and panels.



Methodological annex

This synthesised impact report presents a cross-cases analysis of the salient features in 342 impact case studies (ICS) provided by Hong Kong universities as part of the RAE 2020 evaluation. A sequential multi-method approach was employed. The first component involved quantitative topic modelling, followed by directed content analysis. This approach allowed the essence of the impact generated by Hong Kong universities to be captured and synthesised. It is important to note that the analysis and conclusions of these reports are based on the impact as described in the ICS. That is, the authors of this report took the case studies at face value and did not verify or question the narratives provided. A summary of the methodology is given below. For more detailed information on the methodological elements of this study, please see the overarching impact report.

Quantitative topic modelling

Quantitative topic modelling was used to identify overarching topics in the ICS. Topic modelling is a language processing technique applied to document sets to understand the different combinations of words or phrases (topics) that are present. It is a data driven approach, meaning results are not dependent on pre-conceived notions of structure, but are instead derived from the data itself.

Python, Scikit Learn, and Gensim packages were used to implement the topic modelling. Text from section 4 (Details of Impact) from the ICS was normalized (i.e. removal of punctuation and special characters), and domain specific stop-words were removed (i.e. words that are used frequently across the case studies). Various implementations of

the topic modelling algorithm were tested, and the Non-negative matrix factorization [NMF] was found to produce the most usable results. After testing multiple models using this algorithm, and manual review by the authors, the number of topics was set to 35 to provide a balance between the breadth of groupings and granularity of topics.

In discussion with UGC, the research team developed an initial taxonomy by grouping similar topics into broader 'clusters'. For example, the topics 'finance', 'accountancy and governance', and 'economics' were grouped into a cluster titled 'business & commerce'. Topic clusters were set at the outset of the analysis to ensure cognitively similar cases were read together, thereby improving the quality of coding, analysis, and impact reports. This classification system then informed the coding and testing of case studies.

Directed content analysis

Qualitative directed content analysis was then used to elucidate the salient characteristics of the impact narratives. This involved an iterative process of examining case studies and developing a code book to categorise their inherent features. The code book was derived from the existing literature and the domain expertise of the authors. It included four overarching categories: a) research, which captured funding source and impetus for research; b) time lags, which captured the elapsed time between the research and its impact; c) mechanisms/channels of impact, which included forms of collaboration and dissemination; and d) impact, which included beneficiary groups (e.g. young people, women, ethnic minorities), location and reach (e.g. Hong Kong, Mainland China, elsewhere), and the nature of impact (e.g. commercial, policy, practice).

Using the cloud based qualitative analysis software, Dedoose, each case study was read, and relevant excerpts were 'tagged' with the relevant codes. Multiple codes

and subcodes were attributed to individual case studies. This allowed all case studies that had been tagged with a particular code (e.g. a particular beneficiary group) to be considered as a group. Two of the study's authors undertook the reading and coding (JG and KW). Inter coder reliability was ensured by double coding 10% of the cases (i.e. each author codes the same case study) and through regular coding meetings that were used to compare code applications and adjust the code book as required. The code book was thus a 'living document' that was reviewed and revised iteratively. This process allowed for cross case analysis that was the basis of synthesised impact reports. A code co-occurrence matrix was used to identify where the overarching codes intersect (for example, instances where particular topics are associated with particular beneficiary groups). The properties of the ICS were systematically examined, and evidence was gathered by assigning segments of text to unique codes within the broader coding categories. This process allowed for cross case analysis that formed the basis of this synthesised impact report.

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