

# Measuring Individual Research Activity Procedure

# Section 1 - Purpose and Objectives

(1) The <u>Measuring Individual Research Activity Policy</u> establishes a framework for the creation of a model for measuring individual research performance. A key feature of this model is the formulation of performance benchmarks for academic levels based on external, discipline specific data sourced from the most recent Excellence in Research for Australia (ERA) or equivalent research evaluation system.

(2) This Procedure details the methods and processes involved in calculating each staff member's Measure of Research Activity (MORA).

# **Section 2 - Scope and Application**

- (3) This Procedure applies to:
  - a. All staff to whom the Measuring Individual Research Activity Policy applies.

## **Section 3 - Definitions**

(4) Competitive Grants: peer reviewed external grants for research from national and international sources.

(5) Completions: The completion of a Research Doctorate and Masters by Research program at Victoria University.

(6) Creative Works as Research: Is the creation of new knowledge or the use of existing knowledge in new and creative ways so as to generate new concepts, methodologies, inventions and understandings. This could include synthesis and analysis of previous research to the extent that it is new and creative.

(7) Dean: The Dean of the College, including their delegates or nominees.

(8) ERA: Excellence in Research for Australia: Australia's national research evaluation framework which is administered by the Australian Research Council.

(9) Extended Consecutive Leave: Starting from a leave period of six months, any form of Maternity Leave, extended Personal (Sick/Carer's) Leave and Workcover leave, beginning up to a year before the reference period, will be taken into consideration. In the Work Years calculation the extended Leave months of an individual will be augmented by 25% so as to allow for a research productivity recovery period.

(10) Field of Research: This Australian and New Zealand Standard Research Classification code classifies research according to the research undertaken, rather than the purpose of the activity. It describes what is being researched. The FoR is a hierarchical classification with three levels, namely Divisions (2 digits), Groups (4 digits) and Fields (6 digits). Each level is identified by a unique number.

(11) FTE: Is the equivalent unit for a full-time member of staff.

(12) HERDC: The Higher Education Research Data Collection comprises of research income data submitted by universities each year to the Australian Government Department of Education and Training (or equivalent).

(13) New Staff: Teaching & Research and Research Only academic staff who have not held an academic position of employment at Victoria University for the full three years immediately prior to the year that the calculation is made.

(14) Pre-eminent and Renowned Publisher List: The consolidated SENSE (Research School for Socio-Economic and Natural Sciences of the Environment, Netherlands) and the City University of Hong Kong academic publisher ranking lists.

(15) Research: Research is defined as the creation of new knowledge and/or the use of existing knowledge in a new and creative way so as to generate new concepts, methodologies, understandings, inventions and applications of this knowledge. This could include synthesis and analysis of previous research to the extent that it leads to new and creative outcomes. This definition of research encompasses pure and strategic basic research, applied research and experimental development.

- a. This definition of research is consistent with a broad notion of research and experimental development, including creative work undertaken on a systematic basis in order to increase the stock of knowledge, such as knowledge of humanity, culture and society, and the use of this stock of knowledge to devise new applications.
- b. Activities that do not satisfy the definition of research include:
  - i. scientific and technical information services;
  - ii. general purpose or routine data collection;
  - iii. standardization and routine testing;
  - iv. feasibility studies (except into research and experimental development projects);
  - v. specialized routine medical care;
  - vi. commercial, legal and administrative aspects of patenting, copyright or licensing activities; and
  - vii. routine computer programming, systems work or software maintenance.

(16) Research Indicators: Comprise external Research Income, Publications and Student Completions.

(17) Research Income: Income from external sources shown in the University's financial accounts that is eligible and has been submitted for inclusion in the Higher Education Research Data Collection (HERDC). The net amount will reflect transfers to and from other institutions.

(18) Publications: Research output, that meets the definition of research and has been published or made publicly available within the reference period, submitted and/or claimed in VU Elements and accepted for the VU annual research publication collection, including recognised Creative Works as Research.

(19) Research Publications as Creative Works: Creative works submitted and accepted through VU's Creative Works as Research annual collection process.

(20) SCImago: A measure of scientific influence of scholarly journals indexed by Scopus that accounts for both the number of citations received by a journal and the importance or prestige of the journals.

(21) Scopus: The largest abstract and citation database of peer-reviewed literature. Includes scientific journals, books and conference proceedings, delivering a comprehensive overview of the world's research output in the fields of science, technology, medicine, social sciences, and arts and humanities.

(22) Timely Completion: Refers to Research Student Completions that are completed in a timely manner. In equivalent full-time (EFT) terms, from enrolment to submission for examination, a timely completion is 4.1 years or less for

Research Doctorates and 2.1 years or less for Research Masters.

(23) VU Elements: The research information management system that provides a single source for all of the University's research publication data.

(24) Work Years: The number of years based on the number of months employed within the reference period (minus the Months for Extended Consecutive Leave x 1.25) expressed in half year intervals: 1.0, 1.5, 2.0, 2.5 and 3.0 years.

# **Section 4 - Policy Statement**

(25) See Measuring Individual Research Activity Policy.

## **Section 5 - Procedures**

## Part A - Roles and Responsibilities

Roles	Responsibility
Office for Research	Receives all data relating to MORA Calculates MORA Releases MORA results to the University Considers requests for recalculation of MORA Initiates College FoR profile development and review.
Researcher	Provides a timely submission of all required data and evidence to support their MORA calculation through prescribed systems and processes. Ensures all information already stored in prescribed systems and processes is up-to-date and accurate. Provides evidence of basis for recalculation of MORA if required.
Deans of Colleges	Nominates a selection of 4-digit FoRs reflective of the College strategic research focus. Approves individual researcher FoR profile
PVC Research and Research Training	Considers appeals against Office for Research determinations in relation to the MORA.

## Part B - The MORA Calculation

(26) The results of the preliminary MORA calculation will be released by the 31 August in the calculation year.

- (27) The final MORA calculation will confirmed by 15 October in the calculation year.
- (28) A report on the MORA scores will be provided to each College Dean and Research Director.
- (29) Staff will have access to their MORA score online through the QUEST research system.

### **MORA Calculation Method**

Individual Benchmark =	Sum ([benchmark for FoR] x [Percentage assigned to FoR in individual profile]) x [Performance factor for academic level]
Income =	Sum (HERDC eligible income per project/([No. of VU staff investigators+1]) x [International weighting] (PI will get double share)
Publications =	Sum ([Category points] x [Quality weighting] x [International weighting])/No. of VU staff authors
Completions =	[Degree value] - Months ([Overtime]) x [Supervisor load] x [Thesis quality weighting]

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Work Years =	Months ([Days employed within the reference period]) - (Months ([Days Extended Consecutive Leave]) x 1.25) rounded to nearest half year
MORA Score =	(Income/Individual Income Benchmark x strategic weighting for income + Outputs / Individual Output Benchmark x strategic weighting for output) + Completions x strategic weighting for completions) / Work Years

### **Reference Period**

(30) The reference period is the three most recent years for which audited data is available. For example, the MORA calculation performed in 2018 will use data collected from 2014, 2015 and 2016.

### Increased Performance Expectation per Academic Level

(31) Performance standards increase with experience and seniority. The model takes this into account incorporating a 1.5 performance ratio per academic level.

(32) Total Weighted FTE for Academic Staff is calculated by multiplying the FTE per academic level with the performance Ratio per Academic Level (see Table 1).

### **Table 1: Academic Growth Levels**

Academic Level	Ratio
A	0.44
В	0.67
С	1.00
D	1.50
E	2.25

### Indicators and Weightings

(33) The staff member's individual score is calculated based on all of their eligible Research Indicators irrespective of whether these indicators fit within their FoR profile.

(34) New Staff will apply to have a MORA calculated on the basis of research performed over the reference period prior to their appointment at VU (refer to part F)

#### **Research Income**

(35) Only VU HERDC reported research income will be included. The dollar amount is the net income invoiced and receipted by VU in the calendar year.

(36) The dollar amount will be shared among the VU Chief Investigators listed in the funding agreement with the Principal Investigator counted twice and receiving a double share\*, as a fraction of the national benchmark figures for the FoR.

\* For example, the dollar amount is \$100,000 and there are 4 VU Cls, of which one is the primary investigator; the \$100,000 is divided by (4+1) and distributed as \$40,000 to the primary investigator and \$20,000 to the other three Cls.

(37) Competitive Grants with chief investigators from overseas institutions attract a collaboration weighting (an additional 1.25 multiplier).

#### **Research Publications**

(38) Recognised Research Publications are those confirmed as satisfying the required standards as specified for the VU annual research publication collection:

- a. A1 Research Book: 4 units
- b. B1 Book chapter: 1 unit
- c. C1 Refereed Journal Articles: 1 unit
- d. E1 Fully Refereed Conference Papers only for 08 Information & Computing Sciences, 09 Engineering, 10 Technology and 12 Built Environment & Design: 1 unit
- e. Recognised Creative Works as Research for 19 Studies in Creative Arts & Writing: 1 unit
- f. Commissioned Reports: 1 unit

(39) Units for research publications will be divided by the number of VU staff authors listed in the by-line of the publication. VU student and external co-authors are not counted.

### **Quality Weightings and Multipliers for Research Publications**

(40) The following is an exhaustive list of the quality multipliers available for research publications. The quality of a publication is measured at the time of the MORA calculation.

(41) A collaboration weighting for Scopus-indexed Research Outputs with co-authors from overseas institutions will attract a 1.25 multiplier.

(42) In accordance with VU's Pre-eminent and Renowned Publisher list, Books (A1) and Book Chapters (B1) will attract a multiplier of:

- a. 2.0 if published by an internationally pre-eminent publisher; and
- b. 1.5 if published by an internationally renowned publisher.

(43) For the FoRs, where citation analysis is used for the assessment in ERA, only Scopus-indexed Refereed Journal Articles will count and will attract quality multipliers according to the most recent SCImago Journal Rank (SJR) as follows:

- a. a Quartile 1 (SJRQ1) journal, a multiplier of 2.0;
- b. a Quartile 2 (SJRQ2) journal, a multiplier of 1.0;
- c. a Quartile 3 (SJRQ3) or 4 a multiplier of 0.5; and
- d. a Not Ranked journal a multiplier of 0.2.

(44) For the FoRs, where peer review of a sample of outputs is used for the assessment in ERA, all Refereed Journal Articles will attract a similar quartile weighting if published in a journal listed on the approved alternative Outlet Ranking Lists, otherwise the most recent SCImago Journal Rank will be used

(45) SCImago annually ranks Scopus-indexed journals in quartiles. Other nationally recognised Outlet Ranking lists that will be used are as follows:

- a. For staff predominantly aligned with the two digit FoR 15 Commerce, Management, Tourism and Services the most current Australian Business Deans Council (ABDC) journal list will be used and the following quality multipliers applied:
  - i. A\* and A ranked journals, a multiplier of 2.0,
  - ii. B ranked journal, a multiplier of 1.0,

- iii. C ranked journal, a multiplier of 0.5, and
- iv. Not Ranked, a multiplier of 0.2.
- b. Fully Refereed Conference Papers in eligible FoRs (08 Information & Computing Sciences, 09 Engineering, 10 Technology and 12 Build Environment and Design) will attract a quartile quality multiplier according to the latest CORE Conference ranking lists, as follows:
  - i. A\* and A ranked conferences, a multiplier of 2.0;
  - ii. B ranked conferences a multiplier of 1.0;
  - iii. C ranked conferences, a multiplier of 0.5.

(46) Creative Works as research are those research outputs that are consistent with the VU <u>Measuring Individual</u> <u>Research Activity - Creative Works as Research Guideline</u> and approved by the Creative Works as Research Evaluation Committee.

(47) Creative Work as Research are only eligible for staff predominantly aligned with the two digit FoR 19 Studies in Creative Arts & Writing. Each recognised Creative Work as Research is categorised in one of three classifications of scale:

- a. Major work: 2.5 units
- b. Substantial work: 1 unit
- c. Minor work: 0.2 units

(48) These base points for Creative Works as Research will attract multipliers as follows:

- a. Works of international importance a multiplier of 2.0; and
- b. Works of high esteem a multiplier of 2.0.

### **Research Student Completions**

(49) Only VU research student completions will be included.

(50) Points will be awarded for timely completion in the year the student is classified. The points will be divided among the formally listed supervisors at the time of submission, with the distribution of points reflective of the supervision load of each supervisor.

- a. Research Doctorates & PhD: 2 units per student if completed within 4.1 years equivalent full-time
- b. Masters by Research: 1 unit per student if completed within 2.1 years equivalent full-time.

(51) Research student completion units will be reduced incrementally on a pro rata basis up to and including 12 months for Research Doctorates & PhDs and 6 months for Research Masters after the timely completion period.

(52) Where a thesis is given a high rating, i.e. an average score from the examiners of 2 or less, a quality weighting of 1.5 will be applied to the completion points.

### **University Importance Weightings**

(53) All research indicators will attract additional weightings to reflect the value of the activity to achieving the University's strategic goals and targets as follows:

- a. External research income will attract a multiplier of 4.0;
- b. Research publications will attract a multiplier of 2.0; and
- c. Research Student Completions will attract a multiplier of 1.0.

# Part C - Determining Research Performance Benchmarks for the Field of Research (FoR)

(54) MORA calculates nationally reference research performance benchmarks tailored to specific fields of research. These benchmarks are created using the most recent ERA or equivalent data. The underlying formulae will include calibrations to account for skewness in the data.

### National Benchmarks for Output and Income

(55) ERA collates national data by Field of Research code (FoR) for:

- a. Number of Research Outputs by Type and by Year;
- b. HERDC Income by Category and by Year; and
- c. Staffing Profile (FTE by Academic Level).

(56) No benchmark data is presently available for research supervision.

- (57) The national benchmark for each 4-digit FoR code will be calculated as follows:
  - a. For research outputs: (Total Research Output nationally / Total Weighted FTE for Academic Staff nationally) / 6 years (the ERA reference period for publications).
  - b. For research income: (Total Research Income nationally / Total Weighted FTE for Academic Staff nationally) / 3 years (the ERA reference period for research income).

# Part D - Determining Field of Research (FoR) Profiles and Benchmarks for Academic Staff

### **College Field of Research Profiles**

(58) Every three years each College will specify their College Field of Research Profile using the following process:

- a. The College nominates a selection of 4-digit FoRs reflective of the College strategic research focus
- b. The selection of 4-digit FoRs will be put to College staff for consultation
- c. The Dean considers whether alterations to the selection of FoRs is necessary to achieve the college research strategy
- d. The Dean makes a recommendation to the Pro Vice-Chancellor (Research and Research Training) to confirm the College Research Profile
- e. The Pro Vice Chancellor (Research and Research Training) will decide whether to confirm or reject the proposed College Research Profile
- f. The confirmed College Research Profile will be published online.

### Individual Field of Research (FoR) Profiles

(59) Every three years Academic Staff will have the opportunity to create or adjust their Field of Research Profile using the following process:

- a. Academic staff will select and assign percentage values for up to three 4-digit FoRs in the College Field of Research Profile, creating a proposed individual FoR profile that is submitted to the Dean for approval.
- b. The Dean will decide to either confirm or reject the proposed individual FoR profile.
- c. Rejected proposals must be accompanied with reasons for the rejection and provide the opportunity for an

individual to appeal the decision at College level.

- d. Staff will have a further avenue of appeal through to the Pro Vice-Chancellor (Research and Research Training). The appeal must clearly identify errors or unreasonableness in the Dean's reasons for rejection. The PVC will decide whether to accept or reject the appeal.
- e. Once confirmed, the individual research profile will remain in use for a period of at least three years.
- f. The confirmed individual FoR profile will be compared to ERA data to determine the benchmark levels of research output and income generation expected within that field/composite field of research nationally.
- g. A staff member's benchmark figures are multiplied by the 'Growth Ratio' figure applicable to their Academic Level (income is subsequently rounded to the nearest \$1,000).
- h. The resultant figures are the staff member's individual benchmarks for research outputs and income generation per year.
- i. The percentages assigned to the 4-digit FoRs in the individual FoR profile will be summed by 2-digit FoR to determine an individual's predominant 2-digit FoR.

## Part E - Collecting Data

### **HERDC Report Research Income Data**

(60) HERDC data includes External Research Income. Collection of this data will be as follows:

- a. Data will be obtained from the University finance system and Office for Research records of grants and contracts and will be included as part of the University's submission under the annual Commonwealth Government's HERDC.
- b. The Office for Research will make an annual call (usually between April and June) requesting researchers to confirm their External Research Income. Only external research income included in the University's HERDC submission is eligible for inclusion.

### **Research Publications Data**

(61) Prior to June each year the Office for Research will conduct the VU annual research publication collection and invite Academic Staff to update their publication record in VUElements. Only publications recorded in VUElements that satisfy the requirements as specified in the VU annual research publication collection documentation will be eligible for inclusion.

### **Creative Works Data**

(62) Prior to June each year the Office for Research will conduct a Creative Works as Research collection and invite Academic Staff to submit their works from the previous year. Only eligible works submitted to the University's Creative Works as Research Collection will be recognised.

### **Research Student Completions Data**

(63) Data associated with Research Student Completions will be recorded by the Graduate Research Centre as at 31 August of each year for the census year spanning 1 Sept of the immediately preceding year to 31 August of the current year.

## Part F - New Staff

### New Staff

(64) New staff will have a MORA calculated on the basis of research performed during the reference period.

(65) New staff will be required to update their details in VU Elements. The following rules apply to staff new to VU:

- a. Research publications written since assuming an appointment at Victoria University will normally be required to have Victoria University outlined in the affiliation to qualify for inclusion in the MORA calculation
- b. Research funding transferred, earned or won since assuming a Victoria University appointment must be in a Victoria University account
- c. Research students transferred and completed at Victoria University in a timely fashion will be counted in full.

(66) New staff who are prohibited from transferring funding or students to Victoria University, may apply to the Office for Research to have these research indicators formally recognised in the MORA calculation. Only authenticated research funding and research student completions for the relevant period will be recognised.

### Part G - Request for Recalculation of MORA

(67) Where a researcher believes an incorrect calculation of their MORA has occurred, they may seek a recalculation. The Process is as follows:

- a. The researcher must contact the Office for Research within four weeks of the release of the preliminary calculation and provide evidence to support the claim. Researchers must ensure that they keep their Dean or Dean's nominee informed of the recalculation request.
- b. The Office for Research will then either:
  - i. Agree to the request for recalculation
  - ii. Reject the request for recalculation
  - iii. Ask for further information. In this case, the researcher will be required to provide the Office for Research with additional information in the requested timeframe. The Office for Research will then consider the application and the new information and either approve or reject the request for a recalculation of the MORA
- c. Where a request has been rejected, the researcher may appeal to the Pro Vice-Chancellor (Research and Research Training). The Pro Vice-Chancellor will then either:
  - i. Agree to the appeal for recalculation
  - ii. Reject the appeal for recalculation
  - iii. Ask for further information. In this case, the researcher will be required to provide the Pro Vice-Chancellor (Research and Training) with additional information in the requested timeframe. The Pro Vice-Chancellor (Research and Research Training) will then consider the application and the new information and either approve or reject the request for a recalculation in the MORA

(68) The Provisions in this Part apply only to the current MORA result.

# Part H - Changes to Collection Method and/or Values and Implication for MORA Calculation

(69) Where a change is made to:

- a. the indicators to be included in the MORA;
- b. the value associated with a MORA indicator;
- c. the value given for weightings associated with a MORA research indicator; or
- d. the time or dates associated with collection of data associated with MORA indicators,

those changes will apply only to the current and future (where applicable) MORA calculation year and will not be applied retrospectively.

(70) For example, a change to the Quality Weighting for research income in 2014 will apply only to income received in 2014 and not to income in 2013 or 2012.

# Section 6 - Guideline

(71) See <u>Measuring Individual Research Activity - Creative Works as Research Guideline</u>.

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