

<p>Institution: University of Ulster</p>
<p>Unit of Assessment: 4</p>
<p>a. Overview</p> <p>In RAE 2008, the Psychology Research Institute (PRI) submitted four research groups, (Behavioural Neuroscience; Peace and Conflict; Health Psychology and Psychological Measurement and Statistical Modelling), while in this submission we are entering three groups. The rationale for this change is that psychology at Ulster has greatly increased its interdisciplinary work particularly with colleagues in Biomedical Sciences and Nursing. The success of this collaborative approach led to a strategic decision to enter our Behavioural Neuroscience group with Subjects Allied to Medicine, where Ulster scored highly in RAE 2008, and half of our Health and Wellbeing group are being entered with Nursing, Ulster's most successful unit in RAE 2008.</p> <p>The quality of research in the psychological epidemiology and mental health areas has led to a focused strategy of growth and staff investment. This is reflected in new staff appointments, funding with major grant awards from the MRC for a Research Methodology Hub, and from the ESRC for an Administrative Data Research Centre. To support these developments, we merged our Psychological Methods and Statistical Modelling group with mental health members from our Health Psychology group into an enlarged Psychological Epidemiology and Mental Health group to build on existing strengths. Following the University's creation of the Bamford Centre for Mental Health and Wellbeing Health and Wellbeing was renamed as a research group to support multidisciplinary health research. Our existing multidisciplinary group, Peace Conflict and Equality has been widened to include equality issues arising from the new post conflict environment within Northern Ireland with researchers investigating fuel poverty; social and educational issues including intergroup contacts in schools, interaction in sporting contexts, organisations and changes in community relations.</p>
<p>b. Research strategy</p> <p>We seek to be a leading centre for applied psychological research through drawing upon and enhancing our cutting edge expertise in design and statistical analysis of intervention research in the areas of clinical trials and epidemiology. Researchers are committed to multidisciplinary approaches to help address complex health and social issues. Psychological Epidemiology and Mental Health group members have developed extensive collaborative partnerships with international centres of excellence such as Harvard and the University of Barcelona to produce findings which have real benefits for society. Health and Wellbeing staff lead the newly established Bamford Centre for Mental Health and Wellbeing and have developed international multidisciplinary health research programmes with nutrition researchers. Peace Conflict and Equality group members lead ARK (the Northern Ireland Social and Political Archive) and also our Fuel Poverty Research Centre. The success of our strategy of addressing applied research topics through building multidisciplinary teams is evidenced in our increased Research Council funding of £3.3 million; increased interdisciplinary outputs (52%) and the sophisticated statistical analysis on large datasets (63% of outputs).</p> <p>This has been achieved through increased teamwork and collaboration, and by ensuring that the appropriate methodological skills are being utilised in grant applications and outputs. This increased methodological input is aided by our International Statistics Summer School which attracts scholars from across the world and by the statistical expertise of staff in our Epidemiology and Mental Health group. Our MRC research methodology hub staff also provide a valuable resource for methods support for Institute staff and postgraduate students. The applied nature of this research combined with the use of large-scale population samples has led to the increasing adoption of research findings by Government bodies and agencies. Examples of this impact can be found in the work of all three groups. The inclusion of impact in REF 2014 is a welcome aspect for our applied researchers. Support for research programmes which had the potential to be entered as impact case studies has been strategically targeted with funding of £20k being allocated to support our case study areas. Research work in mental health, fuel poverty, autism and large scale surveys which have had demonstrable impact is reported under our research groups. These applied research programmes have involved extensive end user engagement and a partnership approach which is essential when dealing with the complex social and psychological issues involved in researching trauma and conflict, suicide, fuel poverty and autism.</p>

As part of the University of Ulster's Strategy for Research and Innovation 2009-15, research is concentrated in 15 Research Institutes, each led by a director who reports directly to a dean. RI directors meet regularly with the Pro Vice Chancellor (Research and Innovation) and they receive independent recurrent budgets to support the strategic development of research in their units.

Research in Psychology at Ulster is conducted within the Psychology Research Institute. All staff in PRI are also members of the School of Psychology and the Head of School and Research Institute Director are joint line managers for academic staff who are in both the School and the Institute. Contract research staff and postgraduate research students are supervised by their project leaders, overseen by the Director. The Director Stringer, along with Research group leaders, make up the executive research team. This approach has allowed areas of research strength to be strategically supported and developed through staff recruitment and targeted financial support. New staff members have been appointed to complement and strengthen existing research priority areas and are assigned funding to develop external research collaborations with leading researchers in their areas.

Psychological Epidemiology and Mental Health Research Group

(Group Leaders: Professors Adamson and Shevlin, Armour, Bunting, Elklit, Ferry, Houston, Mallett, McBride, Murphy J, Murphy S, O'Neill)

This multidisciplinary group has published extensively in many of the world's most prestigious research journals; acquired substantial research funding and collaborated nationally and internationally, contributing to many methodological and statistical developments in the areas of epidemiology and mental health. The group has run an annual research and statistics summer school over a period of 23 years, and were responsible for regional training in latent variable modelling through an ESRC £60k research development initiative.

The Northern Ireland Study of Health and Stress (NISHS) which is part of the World Mental Health Survey Initiative (WMHSI) has been a key initiative with group members securing £1m from the Northern Ireland R&D Division of the Public Health Agency to conduct an epidemiologically rigorous population survey of mental health across Northern Ireland. This project was part of the World Mental Health Survey Initiative which comprised over 30 countries led by the World Health Organization and the Universities of Harvard and Michigan.

A main finding of NISHS is the high prevalence rates of mental disorders generally and post-traumatic stress disorder (PTSD) specifically in Northern Ireland. This has led to a number of influential publications and 3 follow-up research awards on PTSD and the conflict within Northern Ireland. The first was a secondary analysis of traumatic experiences and PTSD (funded by the Big Lottery Fund) and the second was an economic analysis of PTSD (funded by the Lupina Foundation of Canada). In addition, funding was received to undertake follow-up studies of particular sub-populations. The Big Lottery Fund grant included funding for a qualitative study into the impact of conflict related traumatic experiences and a further grant from Atlantic Philanthropies permitted a quantitative follow-up study of older people who have had a trauma related to the conflict. These awards enabled the appointment of a Health Economist (Ferry) to join the team and support further publications on the epidemiology of mental health. The Northern Ireland (NI) Commission for Victims and Survivors commissioned an analysis of mental health and traumatic events related to the conflict to inform its comprehensive needs assessment.

Bunting, O'Neill and Murphy are members of cross-national workgroups in WMHSI on nosology, PTSD, suicide, mental and physical co-morbidity and gender, and have led and co-authored many papers examining cross-national data from the initiative. WMHSI has been instrumental in the development of mental health policies and services worldwide. Data on symptoms, diagnoses and treatments for mental disorders inform the development of criteria for the diagnosis of disorders and guidelines regarding treatments. This work impacts upon the revision of international guidelines for the diagnosis of psychiatric illnesses set out by the Diagnostic and Statistical Manual of the American Psychiatric Association (DSM) and the International Classification of Diseases from the World Health Organisation (ICD). The nosology workgroup of the WMHSI was established to produce cross national papers to inform the revisions of the DSM and ICD. In particular DSM-V has been widely informed by the WMHSI and by papers from our group.

The applied nature of this group's work is best exemplified in the influential reports which have policy relevance. The first, 'Trauma, Health and Conflict', was distributed widely to key stakeholders such as Members of the Legislative Assembly in Northern Ireland, MPs, MEPs, Departmental Permanent Secretaries, District Councils, public sector organisations, voluntary and community sector bodies, funders and church leaders. The Northern Ireland Executive continues to use the research findings to inform decisions on investment and service delivery in the health and victims and survivors' sectors. During 2011 and 2012 there were two further reports launched on 'The Economic Cost of Trauma', and 'Ageing, Health and Conflict'. Both launches received considerable media coverage. The first report presented at Stormont revealed Northern Ireland to have a very high rate of PTSD. The Northern Ireland data show that violence has been a distinctive cause of mental health problems for around 18,000 people, or 25% of those with a diagnosis of PTSD. The researchers estimated the combined direct and indirect costs of PTSD to be £172.8 million. Of that, the cost associated with PTSD linked to a conflict-related traumatic event was £46.7million. The second report (by Bunting, O'Neill, Ferry and Murphy along with trauma experts from The Northern Ireland Centre for Trauma and Transformation in Omagh) concluded that "...along with the experience of specialist trauma services, the findings show that acute manifestation of symptoms for many mental health conditions often only appears many years later." The research findings were presented to The Consultative Committee on the Past, and in their Report to the Secretary of State for Northern Ireland, they refer to the 'Trauma, Health and Conflict' report as informing their recommendations. In their June 2010 publication 'Advice to Government, Dealing with the Past' (with the Commission for victims and Survivors NI) they adopted the recommendations of the research team to convene a working group to examine the impact of trauma and the conflict on mental health.

The study reported in 'Ageing, Health and Conflict' examined the experience and impact of 'Troubles-related' trauma among individuals aged 45 and older. The research shows that an individual who has experienced a conflict-related traumatic event is three times more likely to suffer from anxiety, depression and/or alcohol abuse than someone who has not had a trauma. The research findings have already been cited as evidence in two Rapid Reviews of Mental Health Services in NI (Primary Care and Personality Disorders) and inform their recommendations to the NI Research and Development Division for the development of mental health services in these areas. The research team have also reported to the Commission for Victims and Survivors. One of the main aims of this Commission is to review the adequacy and effectiveness of services provided for victims and survivors of the conflict. In their interim needs analysis report the team's research on trauma health and conflict was cited to support their needs analysis. The research team were also commissioned to prepare a separate analysis of the Northern Ireland study data by the Commission for Victims and Survivors to inform the Commissioners' Comprehensive Needs Analysis Final Report which was launched in September 2012 and is the definitive mental health evidence base informing the development of the new victim's service. Bunting, O'Neill, Murphy and colleagues also obtained two large 2-year grants from the R&D Division of the Public Health Agency to develop the UK's only database of complete suicides, the NI Suicide Database. NI is a single coronial district, and each suicide is allocated a specific study code. NI therefore offers a unique opportunity for the epidemiological study of suicides. The NI suicide study used the coroner's files to develop an electronic database of suicides over a 10 year period. The analysis of this database has, and will continue to have, an important role in understanding patterns of suicides and associated variables. The group have recently obtained a large Administrative Data Research Centre grant of £7 Million from the ESRC of which £1.7 Million will come to our group to conduct data linkage between health and social care data and the suicide and mental health databases.

The grouping has also been influential in nosology related studies of PTSD. Elklit is a visiting Professor at Ulster and Director of the National Centre of Psychotraumatology at the University of Southern Denmark. Elklit founded the centre in 2005 as an integral part of the Department of Psychology at the University of Aarhus. Since then the Centre has evolved into the leading national centre in the field of psychological trauma, crisis intervention, and crisis management. Shevlin has collaborated with Elklit since 2005 and produced numerous research papers. Armour worked at the Centre from 2010 to 2013 and has produced important publications that have challenged the current diagnostic structure for PTSD as currently specified in the DSM-IV.

There has also been extensive research on psychosis, with papers in the area of trauma and

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psychosis, the psychosis continuum, the specificity of trauma and psychotic symptoms, and help-seeking and sub-clinical psychosis. The group has collaborated widely having published papers in influential journals with national and international collaborators such as Professor Jim van Os (Maastricht University), Professor Richard Bentall (Liverpool University), and Professor John Read (University of Auckland/Liverpool University). To facilitate local work in this area, Shevlin and Murphy established the Northern Ireland Trauma-Psychosis Research Network in 2010, a large interdisciplinary group (psychology, psychiatry, social work, neuroscience, and nursing) of researchers from Ulster, along with practicing clinical psychologists and psychiatrists.

Group members also conduct research on the detrimental impact of excessive drug and alcohol use on health and wellbeing. Adamson and McBride have led investigations into the validity of diagnostic criteria for diagnosing substance use disorders in current psychiatric classification systems and the development of an alcohol use disorder syndrome. The group have collaborated widely with Professor Tim Slade in the National Drug and Alcohol Research Centre Australia and Dr Hui Cheng in Shanghai Jiao Tong University in China. Adamson, McBride and Stringer collaborate with Professor Scott Weich from the University of Warwick Medical School and colleagues from Newcastle, Queen Mary and Portsmouth Universities on a multidisciplinary NHS-NIHR study which uses advanced statistical methodology to help understand the increasing rate of involuntary admissions in the NHS mental health care system.

The MRC Network of Hubs for Trials Methodology Research has been established in Northern Ireland. The Bamford Centre (see below) is a major stakeholder in the Hub, with Executive membership provided by Bunting. The hub aims to advance the development of novel methodologies to improve the design, conduct, reporting, and analysis of clinical trials. The research networks will make use of the Hub for the development of NI-initiated studies. The establishment and funding (210k) of the MRC Hub was a direct reflection of the growing reputation of the advanced statistical expertise that underpins this group's work. Shorter was appointed as a Lecturer in Clinical and Population Trials Methodology and works within the Centre.

Health and Wellbeing Research Group

(Group Leader: Dr Simpson, Cassidy A, Leavey, McKinney, Shorter)

The group's work is highly applied and multidisciplinary being carried out in partnership with local charities, schools, family doctors and local hospitals. Simpson is the main health psychologist involved in the Zenith study, a European funded project looking at the effects of zinc supplementation on healthy adults. She collaborates with The Italian National Research Centre on Ageing; Centre for Research on Human Nutrition in France; National Research Institute for Food and Nutrition in Italy and Department of Medicine in University of Cork, Ireland. Cassidy is promoting and supporting excellence in child and family health through bringing science to the community. The development of CHILD (Child Health Initiative for Life Development) in 2007 has provided a focus for the work of the group in the area of child health and wellbeing. The approach brings a positive health psychology approach to resilience building and the development of children through interventions with a range of disadvantaged and vulnerable groups of children, young carers and teenage parents. McKinney's research is in the area of alcohol and health, specifically the impact on mood and cognition of the post-intoxication hangover state. She works in collaboration with colleagues from Utrecht, and with American colleagues as a member of the 'Alcohol Hangover Research Group'.

The Bamford Centre for Mental Health and Wellbeing was established as a multidisciplinary centre in 2011 to address the relatively low level of mental health research in Northern Ireland. The University has committed central funding of £200k per year allowing the appointment of Director, Professor Leavey, Dr Shorter and support staff. The Centre aims to improve the quality of life for people with mental health problems and their carers through the production of research evidence that will inform and influence policy and practice. Funding of £419K from the R&D Public Health Agency has been obtained by Leavey and Bunting to research pathways and care for young people with mental health problems. The Centre has developed partnerships across the statutory and voluntary mental health sectors in Northern Ireland and collaborative research programmes with academic and clinical organisations in the Republic of Ireland and the United Kingdom. The R&D Division of the Public Health Agency has funded a £64K Clinical Research Network on Mental Health, supported by the Royal College of Psychiatry (NI) and NHS mental health services. The network is supported by the UK

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Mental Health Research Network and will collaborate with UK regional hubs to attract multi-centre RCTs and other studies. The Centre is currently collaborating with University College London on a number of major NIHR funded programme grants (UK rehabilitation services; housing and mental health) and is involved in a new five year £3.3m ESRC-NIHR funded dementia project.

Peace, Conflict and Equality Research Group

(Group Leader: Professor Stringer, Cassidy C, Goeke-Morey, Hargie, Liddell, Merrilees, Robinson, Simms)

This multidisciplinary group addresses issues related to cross-community contact, reconciliation, and equality within post-conflict Northern Ireland. Robinson directs ARK, a series of internationally acclaimed databases and on-going province wide surveys, providing an invaluable research archive for researchers and policy makers. Work with practitioners has continued at both national and international level via the Journeys Out project funded by Peace III (£474k from the Community Relations Council and £28K from the Community Foundation for Northern Ireland). This project engaged a new generation of community leaders in the debate about 'dealing with the past', whilst enabling them to explore these issues within their respective communities. ARK is supported by a large ESRC grant (£2.7 Million) and stands for Access Research Knowledge, and has impact on Northern Ireland society at the heart of its mission.

Database development to facilitate scholarly work has been greatly enhanced by £285K of grants for CAIN (The Conflict Archive on the Internet). Over the last decade CAIN has proven itself to be an accessible and widely-used resource for scholars and others working in the area of conflict resolution, peace studies, historical, cultural and Irish studies as well as researchers engaged with issues arising in post-conflict societies. The total number of page views since its launch in 1997 passed 62 million in April 2012. This work has been supported by two large AHRC awards (£227K in 2006-2009, £260K in 2010). The latter – 'Visualising the Conflict: Immersion in the Landscape of Victims and Commemoration in Northern Ireland' - builds on the earlier work on victims and survivors and involves integrating the CAIN memorial database with Google Maps/Earth. This allows existing data on deaths and physical memorials related to the Northern Ireland conflict to be visualised on Geographic Information System searchable maps and embedded in a Web interface, which can display information on physical memorials with background material on the victims of the conflict. This rich interface allows interaction with existing information in new ways, making it more accessible and allowing new interpretations and visualizations; e.g., carrying out a spatial analysis of deaths and memorials as well as the relationships between the location of deaths and the location of memorials. Visitors representing themselves as avatars can engage with the new resources via Second Life, facilitating discussions, dialogue and group interactions. SEUPB (Special EU Programme Body) funding (£972K) has further allowed a major project to begin building an on-line archive to store a wide range of stories about 'the Troubles'. The archive will provide facilities for story-telling projects to deposit their materials in a central repository.

Liddell has played a leading role in energy issues and has established the Fuel Poverty Research group which she directs. Liddell led the independent Preliminary Review of Fuel Poverty, one of three being carried out across the UK. This showed that, while efforts to tackle fuel poverty in Northern Ireland have made measurable inroads, the severity of fuel poverty remains profound for many households. This research review revealed that past and present approaches to tackling fuel poverty in Northern Ireland have delivered a highly cost-effective programme of housing regeneration. The group advises teams working on fuel poverty in Scotland and England, and is leading an EU application involving 15 Member States. The research group consists of five researchers, and has built a reputation for impartial and evidence-based advice and research, with projects completed for partners in many different countries totalling £500k in this research period. The Group has advised the Hills Review of Fuel Poverty; the International Energy Agency, Copenhagen, on the mental health impacts of improving the energy efficiency of homes and the United Kingdom Department of Climate Change. The group jointly organised the first EU Conference on Fuel Poverty, with Energy Action Ireland and the University of Oxford (held in Dublin, 2013). Liddell edited a special issue of the journal, Energy Policy, commemorating twenty years of fuel poverty action and research and advised the Irish Government on the establishment of an Expert Panel on Fuel Poverty. The group collaborates with the Universities of Oxford (Environmental Change Institute) and York (Department of Social Policy and Social Work), as well as with University College London.

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Stringer and Hargie have made significant contributions to understanding and improving community relations through large-scale funded studies into intergroup contact effects in integrated education, organisations and cross community sporting contacts. Hargie received funding from NI government (£243k) to examine impacts of sport on social exclusion, and £140k as part of an EU FP7 grant to examine 'Counter-Terrorism Crisis Communications Strategies for Recovery and Continuity'. Stringer along with Merrilees and Goeke-Morey have continued the NIH funded series of projects initiated with the late Professor Ed Cairns whose tragic loss was felt by group colleagues and Peace psychologists around the world. The partnership with colleagues at Notre Dame has been most notable in further elucidating the relationship between political violence and child development. Beginning in 2007, the group initiated a large scale longitudinal study of children and their families, funded by the NIH (357K to Ulster) based on a social – ecological model. It was large in scale: in one of the most recent publications (Cummings et al 2013) the sample was 999 mother–child dyads. The research was carried out in carefully chosen neighbourhoods of Northern Ireland which varied in levels of sectarian violence. The study is unique in distinguishing neighbourhood levels of sectarian antisocial behaviour and non–sectarian antisocial behaviour. Longitudinal assessments of psychological adjustment and wellbeing along with other behavioural and social attributes were carried out at six time points to assess the association between the different types of community violence and child adjustment. The findings show a clear and statistically significant association between experiences of sectarian violence and symptoms of maladjustment in children (Cummings et. al., 2013). The effect of sectarian violence is independent of the association between non–sectarian violence with child maladjustment. Other analyses found that families, particularly mothers, had an important moderating role (Merrilees et al, 2011). Mothers who were more affected by the violence tended to have lower levels of psychological wellbeing, which in turn was associated with symptoms of maladjustment in children. This relationship between sectarian violence and child maladjustment interacted with crime rates, with a stronger relationship found in areas with relatively high crime rates (Cummings et al, 2012). New staff member Campbell has joined this project team and the group are exploring interventions aimed at improving intergroup relations in Northern Ireland building upon this work. Group members (Stringer, Robinson) also work closely with members of the mental health group on funded projects into suicide, psychological trauma and data capture to ensure that cross group expertise is brought to bear on and issues that involve both group processes and mental health.

c. People, including:

i. Staffing strategy and staff development

PRI supports advanced research and provides a high quality training and educational environment for postgraduate students. All staff, research workers and postgraduate students are encouraged, and provided with resources to obtain training in their research area, both through specially constructed programmes (e.g. those in the postgraduate research training programme or the Statistics and Methodology Summer School), and through attendance at workshops and courses at other institutions. The strengthening profile of psychological research within the University has enabled us to make new appointments to strengthen the Institute. New staff appointed include: Campbell and Simms to our **Peace, Conflict and Equality group** and Murphy, McBride, Houston and Armour to the **Psychological Epidemiology and Mental Health group**. Shevlin, Adamson, and O'Neill have been promoted to chairs within this group with Mallett promoted to a senior lectureship. In the **Health and Wellbeing** group Leavey was appointed as professor to lead up the Bamford Centre, Cassidy to a readership and Shorter to a new lectureship in clinical and population trials methodology.

Support for new staff is provided in four ways: reduced teaching loads in their first year in order to allow research development time; encouragement to join one of our recognised research groups to provide awareness of research group strengths, priorities and collaborative opportunities; funding to facilitate conference attendance and general support for research; and pairing with an experienced mentor who provides advice about all aspects of research and publication. Training and development of staff is also provided through the University's Staff Development Programme, including induction for all new staff and appraisal to record individual requirements. A University Concordat Coordinator supports contract research staff and early career researchers. The University has put in place a comprehensive suite of Human Resources policies and practices to support the recruitment and career development of our research staff. In recognition of these HR policies and practices the University has recently gained the HR Excellence in Research Award from the European

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Commission. An Online Welcome & Orientation Programme and four online Mandatory Training Programmes are available on Blackboard Learn and new staff are encouraged to access and complete the online Mandatory Training Programmes at the earliest opportunity within their probation period. In addition the Research Institute Director holds regular meetings with new staff to ensure they are properly supported in terms of time and funding for collaborative research visits to develop research partnerships. Regular Institute research seminar programmes which involve presentations by postgraduates and staff provide a useful means of developing a collegiate environment in which experienced and young researchers can mix and interact.

ii. Research students

Research Student Support: Research students are managed through the Faculty Research Graduate School (RGS), in association with the University's Research Office (RO). The RO is responsible for research student registration and maintaining records, including both those relating to periodic data returns, such as to HEFCE and REF, and of individual student progress. The RGS is responsible for quality assurance and maintenance of standards through procedures established by RO. PRI has a robust recruitment process to allocate research studentships through open competition and interview. Almost all students recruited have a Masters qualification and many also have a First Class Honours degree. In its Institution Audit report, March 2010, QAA commended Ulster on its “framework for the management and development of research degree programmes”. In particular, QAA considered “the balance between PhD students being associated with Research Institutes and the way that their administration is located in the Faculty RGSs but monitored centrally by RO was thoughtful and productive”; felt assured that induction process was “well-designed and effectively implemented”; and “found evidence that (PhD) student representation on (RGS and RO) committees was both valued and effective”. Student progress is monitored through annual assessment procedures: in Year 1, a 100-day viva and report; after 9 months, a more substantial viva and report, to secure confirmation of PhD registration; and early in Year 3 students make oral presentations to academic staff, similar to a major conference presentation. Additionally, the RGS annually reviews reports from students and supervisors and alerts the PRI director if there are any issues of concern. Funded PhD students receive annual budgets of £1000 to support training and development. Although all spend has to be approved by the Director, students are expected to manage their own budgets on the basis of £3k total over the 3 years. Research students are automatically members of PRI and are encouraged to attend seminars and engage in discussions at them. Students are encouraged to attend international conferences and seminars to establish contacts and present the results of their work, and can apply to PRI for financial help to do so. In addition many take the opportunity to expand their skills and experience by becoming involved in demonstrating activities to undergraduates.

PhD numbers: In RAE 2008, the national average number of research students on the census date per fte staff was 1.16, and for Ulster it was much higher at 1.63. The current figure for Ulster is higher again (2.09) and our PhD graduation rate has also improved. It was 0.26/fte staff/year in RAE2008 (a 7 year period), and is 0.42/fte staff/year for the 5-year REF period, an increase of more than 50%.

d. Income, infrastructure and facilities

Research Income: To secure the resources for the enhancement of our research profile, grant acquisition has been a major strategic goal for all Institute members. Members of PRI have attracted research income of 6.45 million pounds since 2008 with 3.26 million of this coming from Research Councils. This increase in research funding from RAE 2008 to REF 2014 is summarised in the Table below:

Comparison of Funding in RAE 2008 and REF 2014

	Staff	Total Income	Per Year by Staff member	Research Funding Council	Per Year by Staff member
REF 2008	27	5170880	27,359	1710085	9,048
RAE 2014	22	6448621	58,623	3255764	29,598

*Figures adjusted for the 7 year period in RAE 2008 / five years in 2014 and numbers of staff entered.

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This illustrates a highly significant improvement in both overall grant income and Research Council income from what were already good funding levels in RAE 2008. Total income per year by staff member has more than doubled from £27k per year in RAE 2008 to £58k in 2014. Research Council funding, which is increasing competitive, has trebled from 9k per year per staff member in RAE 2008 to 29K per individual per year in REF 2014. Our overall funding displays a good range from sources such as the ESRC, MRC, National Institute of Health, National Institute of Health Research, European Framework 7 as well as numerous other funders.

State of the art experimental facilities have been maintained to support our Behavioural Neuroscience researchers (entered into Subjects Allied to Medicine) and a SRIF 3 funded £380k upgrade of human experimental facilities has strengthened our research infrastructure. This has allowed us to upgrade our behavioural observation suites and recording equipment and to enhance our eye-tracking and ERPs equipment and laboratories. The new facilities allow brain recording, eye tracking and galvanic skin response recording to be studied together greatly enhancing our experimental capability. This new experimental capacity will further enhance our multidisciplinary research programmes with colleagues in vision science and nutrition. The large and active group of over fifty postgraduate students plays a fundamental part in our research programmes.

e. Collaboration and contribution to the discipline or research base

Collaboration with external bodies has played an increasingly integral part in the work of all three research groups and has increased from RAE 2008. This is reflected in the range of funding attracted by our researchers. Funding from bodies which fund health research and UK based charities has yielded over a million pounds. Researchers have been equally successful at accessing EU government charity and industry funding of over £500k. One of the most marked achievements of the current research period has been the increasing number of events sponsored by members of the Northern Ireland Assembly indicating the importance of our findings to Government. Group members regularly brief ministers and senior civil servants on a range of research areas including mental health, suicide, fuel poverty and community relations. Stringer was chair of the NI branch of the BPS and responsible for the drive to set up local divisions within Ireland to serve members more effectively. This has been achieved and local divisions in Health Psychology and Counselling Psychology with their own committees and chairs now offer services to members throughout Ireland. Cassidy was the foundation chair of the division of health psychology in Ireland and the **Health Psychology group** have held joint all Ireland Health Psychology conferences with their Southern counterparts as part of an all-Ireland Health initiative. The success of these joint conferences led to an agreement between the NI Branch and the Psychological Society of Ireland (PSI) to support joint conferences as a strategic priority to better develop North/South cooperation. Stringer welcomed the NI Education Minister Caitriona Ruane to open the NI Branch Conference at Carlingford to highlight this initiative to develop North South links in Psychology. Joint all Ireland conferences have also been held in Forensic Psychology and Counselling Psychology. Stringer has played a leading role nationally as the Chair of the BPS Representative Council, while Cassidy was Chair of the BPS Division of Health Psychology. Stringer established an international research MOU between the University of Ulster and the University of Otago and has been a visiting Professor at Otago; Bunting, O'Neill and Murphy and Ferry are all members of various cross-national workgroups as part of the World Mental Health Survey Initiative which has been instrumental in the development of mental health policies and services worldwide. Robinson is a member of the ESRC Research Resources Board Directors group and a member of the NCRM advisory group. Adamson is a member of the R&D Research Fellowship committee; Hargie is Vice Chair of the European Communication Research and Education Association and an elected member of the Royal Norwegian Society of Science; Liddell is a core expert on the NICE Public Health Committee on excess winter deaths and the guest editor of a Special issue of Energy Policy. McBride had her paper voted as one of the top ten addiction articles in 2011 by the American Society of Addiction and Simms was awarded second prize for her paper at the European Paediatrics Society Young Investigator award. New staff member Armour is on the editorial board of the Journal of Anxiety Disorders, the Journal of Traumatic Stress and the Journal of Affective Disorders. Leavey was an invited speaker at the Welsh Mental Health Research Network Annual Conference 2013 and at the Conference of Transcultural Psychiatry at Muenster Germany.