

Institution: University of Glasgow (UofG)
Unit of Assessment: 13 Architecture, Built Environment and Planning
<p>1. Unit context and structure, research and impact strategy</p> <p>1.1 Purpose and Aims</p> <p>Urban Studies at Glasgow (USG) is a multi-disciplinary Unit of 26.3fte Category A (CatA) staff, within the School of Social and Political Sciences (SSPS) in the College of Social Sciences (CoSS). Research at USG describes social and spatial inequalities, identifies their causes (historical, societal, economic and policy), and argues for both spatial policies (housing, planning, urban design) and social policies (education, health, and welfare) to improve urban conditions and quality of life, and for more equitable circumstances for disadvantaged individuals and communities.</p> <p>In REF2014 we stated:</p> <p style="padding-left: 40px;">“Our strategic aim is to sustain and enhance USG as a world-leading centre for international and interdisciplinary urban research, making an outstanding contribution to both academic thinking and policy development”</p> <p>and that we would:</p> <p style="padding-left: 40px;">“create and sustain a vibrant research environment” and approach our research “with vitality, creativity and intellectual energy”.</p> <p>We have fully met these objectives. We have maintained a vibrant research environment (Section 1), with high levels of interaction, growing internationalisation and interdisciplinarity, a focus on research integrity and output quality, and a strong culture of collaboration, knowledge exchange and impact.</p> <p>We have shown commitment to the training and progression of our staff and postgraduate researchers (Section 2), offering a route to career development within and beyond academia. We have expanded our research capacity by nearly doubling our staff complement and increasing PGR recruitment, at the same time achieving high levels of gender equality at senior levels and ethnic diversity across the staff.</p> <p>We have secured substantial funding to pursue our research and impact agenda (Section 3), through supportive internal processes, utilisation of UofG facilities and expertise, and internal and external contributions. Research income has nearly quadrupled and success has delivered three new research centres (RCs): Urban Big Data Centre (UBDC); UK Collaborative Centre for Housing Evidence (CaCHE); and GCRF Centre for Sustainable, Healthy and Learning Cities and Neighbourhoods (SHLC).</p> <p>This approach has enabled us to make significant contributions to the discipline, policy and society (Section 4). We have collaborated with colleagues in other institutions and disciplines and made major contributions to urban studies and planning through researcher development, leadership roles, advisory and review work, and provision of data infrastructure. Our work has influenced national and international policies and practice in the fields of housing, planning, local government, welfare, and health and social care.</p>

1.2 Research Structure

To sustain a strong and inclusive research environment and progress an ambitious research agenda, we have three Research Groups (RGs) along with the RCs (Figure 1).

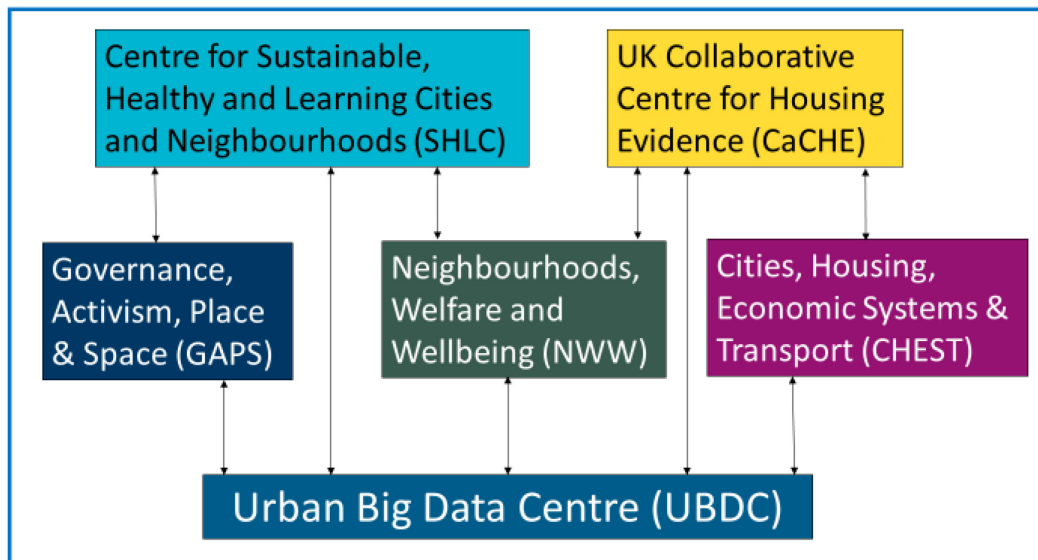


Figure 1. USG Research Groups and Research Centres

Each RG is convened by a group of three: a senior/mid-career academic, an ECR and a postgraduate student. Staff and PGRs can join any/all the RGs, but most have one primary affiliation. RGs explore research ideas and identify suitable collaborations to pursue these; provide mutual support and peer feedback on ideas and draft articles and grant proposals; develop knowledge exchange opportunities; organise formal responses to research and policy consultations; and are a means to integrate new staff and PGRs through academic and social events.

Cities, Housing, Economic Systems and Transport (CHEST) focuses on interactions and effects within land and property markets, infrastructure systems and urban services. Its work focuses on three themes:

- *Housing and real estate markets and policies.*
- *Urban transport systems and active travel behaviours.*
- *Optimal distribution and effects of urban services and infrastructure.*

The group comprises 16 academic staff and 7 doctoral researchers. It has secured major research grants from ESRC and EPSRC and smaller grants from Shelter Scotland, Joseph Rowntree Foundation, Poverty & Inequality Commission and AHURI, among others.

Governance, Activism, Place and Space (GAPS) explores how people experience, understand, shape and plan places and spaces in cities and other urban areas. The group investigates what drives urban change both currently and historically, including the relative balance between government, communities and the private sector. Its work focuses on four themes:

- *Planning, urban design and place making.*
- *City governance and urban politics.*
- *Urban heritage and the meaning of place.*
- *Urban transformation in developing countries.*

The group comprises 12 academic staff and 13 doctoral researchers. It has secured grant funding from AHRC, ESRC, China Academy of Social Sciences and Natural Science Foundation of China.

Neighbourhoods, Welfare and Wellbeing (NWW) focuses on social and spatial inequalities and how these shape residential contexts as well as individual and collective outcomes. Its work focuses on three themes:

- *Changing socio-spatial structures and inequalities, including the effects of segregation and mixed communities.*
- *Housing and neighbourhood effects upon health, quality of life and socioeconomic outcomes, and the effectiveness of regeneration interventions.*
- *Welfare state and public service provision and their effects upon poverty, wellbeing and health inequalities.*

The group comprises 17 academic staff (including research staff) and 15 doctoral researchers. It has secured grant funding from ESRC, GCRF, EPSRC, ERC, NHRI, Health Foundation, Health Scotland, CSO.

1.3 Vibrant Research Environment

We have worked on maintaining a vibrant research environment characterised by vitality, creativity and intellectual energy. This enables staff and PGRs to engage with other scholars, keep up to date with developments in urban research and form connections to support the pursuit of research agendas. Elements include:

- RGs have organised research field trips and site visits locally to understand how urban phenomena are manifest in the real world and to meet practitioners.
- Staff participation in several UofG research networks on Asylum and Migration, Poverty, Social Precarity, and Social and Digital Change.
- Around ten (9-13) unit-level seminars p.a. by invited external academics, a third from overseas. These attract researchers across UofG, plus attendees from government, local organisations and Scottish HEIs.
- Up to twenty research workshops p.a. for staff and PGRs, comprising skills workshops; research talks to discuss fieldwork experiences, early findings and written work in progress; and presentations by doctoral researchers.
- Our RCs have also organised 162 local seminars and workshops in the past two years.
- Seventeen visiting research fellows from overseas.
- Organisation of a Theory Reading Group open to the Colleges of Social Sciences and Arts.

1.4 Internationalisation

We expanded the geographical range of our research to match both the globalisation of many social and economic problems and the need to address issues arising in rapidly urbanising developing countries. From the UK and Europe to North America, we have extended both our recruitment and research activity more recently to Latin America, Africa and Asia. We developed strategic partnerships with three overseas institutes (Nankai University, Sichuan University and the Chinese Academy of Social Sciences) to study urban developments in China. Research Centre funding has enabled us to undertake research on urban growth in Africa and Asia. This growth in our international focus is reflected in the following:

- 42% of academic staff from outside UK (Europe, Asia, America, Africa), vs. 24% in REF2014.
- 38% of 61 new doctoral researchers 2014-2020 were non-UK.
- 30% of academic articles published by CatA staff in 2020 had overseas co-authors.
- Examples of international research published in 2020 include: Finnish and Polish migration to the UK; peripherality in Romania; urban informality in Zimbabwe; housing policies in Argentina; heat resilience, and active travel in USA cities; changes in land use, polycentricity, urban design, access to medical services and air pollution in Chinese cities; car adoption in India; urban development trajectory in Kigali, Rwanda.

1.5 Interdisciplinarity

Interdisciplinarity enables us to address complex urban issues whose solution does not lie in one area of society or policy, to extend our range of appropriate methodologies, and to merge and adapt theoretical frameworks from several fields. We have extended our interdisciplinarity through recruitment (section 2) and collaborations to progress research objectives (sections 3 and 4).

Interdisciplinarity is evident through:

- Recruiting staff with diverse backgrounds, including: architecture; economics; geography; planning; political sciences; social policy; psychology; public health; real estate; transport studies; urban analytics.
- Creating posts in data management, data science and knowledge exchange, attracting people with backgrounds such as computing science and physics.
- Investing in a Chair (Joss) to lead a joint research programme with Edinburgh University on Future Cities, collaborating with UofG College of Science and Engineering.
- UBDC has Co-Is in Engineering and Education and SHLC has Co-Is in Education and Health.

1.6 Outputs

We aimed to improve the quality, quantity and reach of our publications to enhance the influence and longevity of our research within the evidence base; help raise research quality in the field of urban studies; enable all staff to better advance their careers.

We used a three-pronged approach:

Training. USG runs workshops on academic writing with materials made available on-line, including tips for writing high-quality outputs, and example outputs of world-leading quality. We have periodically run a series of in-house writing-groups for staff and PGRs to develop writing.

Support. We offer mentoring and co-authorship opportunities to staff, with workload adjustments where helpful. Regular peer review of published outputs is conducted, with constructive feedback given to authors. Peer review of drafts prior to journal submission is organised via RGs.

Opportunities (see Section 2). We purposely arrange teaching to ensure regular staff uptake of the UofG CoSS Study Leave scheme and encourage staff to use SSPS conference funds for delivering early versions of outputs. We have funded staff on external writing retreats to hone drafts with a professional writer.

For CatA staff, the results have been:

- 570 outputs published during the REF period, including 313 journal articles.
- Increased number and diversity of articles over time: 39 articles in 30 journals in 2014; 53 articles in 47 journals in 2020.
- Maintaining the quality of journal outlets at the same time as increasing the annual article volume by 36%.
- Unbiased selection of outputs for REF2021 by gender, international origin, ECR status and grade of staff.

Non-CatA staff produced an additional 270 outputs from their personal research, including 99 journal articles.

1.7 Knowledge Exchange & Impact (KE&I)

We are committed to knowledge exchange, advancing public and policymaker understanding, and achieving impact from our research. We developed our Impact Culture and introduced an Impact Lab to achieve this:

Impact Culture. In our RGs and research workshops we have discussed KE&I topics such as funder expectations around KE&I, the preparation of impact plans, and use of social media. Annual staff reviews address impact progress and future impact objectives.

Impact Lab. We established the Lab to identify case studies (internal and external) of approaches to public engagement, knowledge exchange and societal or policy impact. Through the Lab, we share best practice and innovations (9 videos were produced in the last year), offer feedback on impact plans, and brainstorm approaches for new projects.

The focus on KE&I is reflected in our research practice:

Structures and Processes. Research projects use Advisory Groups with non-academic stakeholders to identify routes for impact. Our RCs have co-produced parts of their research strategy: UBDC use 'sandpit' events with stakeholders to identify knowledge gaps; SHLC held workshops with local city planners; CaCHE used a deliberative workshop process with stakeholders to identify priorities. Pathways to policy impact have included: presentations to parliamentary committees; supplying evidence to key individuals in the policy community; and participating in government advisory groups and independent commissions.

Resources. We obtained nine ESRC Impact Acceleration Account awards to support outreach work (including for our case studies) and three UofG Knowledge Exchange Fund awards for public events allied to research projects. Our RCs devote resources to KE&I: a fifth of the CaCHE budget supports four KE staff and events; UBDC has two communications and information services staff; SHLC has a business manager who liaises with stakeholders to organise events.

1.8 Research Integrity & Openness (RIO)

We want our research to be robust, accessible and of the highest standard. We seek to apply the principles of the Concordats on Open Research Data and Research Integrity. The areas where we have made most progress to date are as follows:

- 100% of our Category A staff have an ORCID.
- The proportion of all publications that are open access has increased from 19% in 2014 to 69% in 2020. Open access journal articles have increased from 18% to 86%.
- Research findings are made available in multiple formats for academic, policy and public audiences. We write pieces for published media and online blogs and offer to undertake additional analyses or presentation of findings for stakeholders and study communities.
- UBDC has made available dozens of high-quality data-sets from business, government and other sources, adding value to these through data-processing, description and validation.
- Half our staff (53%) have completed research Integrity training, higher than across UofG (35%).
- High proportions of our staff believe we support a culture of open research (74% vs. 69% for UofG), and research integrity (97% vs. 75% UofG).
- We have a dedicated RI Advisor who is part of the UofG network of RI Champions to keep us up to date and offer advice on RI issues.

A RIO Working Group of seven members (including three women and three ECRs) has identified areas for improving practices in both qualitative and quantitative research. Priorities include:

- Consistent implementation of data management plans and data deposition in accessible repositories.
- Accountability through full reporting of research assumptions and methods, including strengths and limitations.
- Providing data citations in publications and making analytical code and frameworks available.
- Recognising all contributions to research using the CRediT taxonomy.

1.9 Future Aims and Objectives

Our strategic aim is to ensure that **USG** continues to make a leading and substantial contribution to understanding the impacts of urban conditions on people's lives and to help address the policy challenges faced by cities in different global regions. We will do this by making the most of our interdisciplinarity, methodological innovation, and collaborations beyond the academy.

We will continue to pursue research in our areas of strength, encapsulated in the following overall objectives:

- Explore how **urban environments**, infrastructure, planning and design can contribute to environmental sustainability, socio-cultural and public health goals.
- Examine the **urban neighbourhood** as an arena for citizen engagement, service delivery, and social and economic inclusion.
- Investigate how **housing, and health and welfare systems** affect quality of life and opportunities for social groups as provision, aspirations and social divisions change.

We will also develop our work in emerging areas of challenge and change, such as:

Sustainability. We aim to investigate the potential contribution of residential buildings to carbon reduction targets through retrofitting and new forms of energy and examine how design-sensitive planning can make future developments more sustainable. Using new forms of remote and sensor data we will examine changing patterns of urban land use and behavioural responses to infrastructure investments in cities. In developing countries, we will examine how neighbourhoods of different types can enable fast-growing cities to become more sustainable.

Pandemic Effects and Responses. We have begun work on the impacts of Covid-19 and its future implications, including further pandemics. Our research is focused on: the impacts of the pandemic on specific social groups including disabled people, migrant workers and victims of domestic abuse; social responses in terms of mutual aid activity; the effects of social restrictions on transport and mobility behaviours; responses in the housing market, design and planning; and, regional economic recovery strategies in the UK and developing countries. We anticipate contributing to UN COP26 in 2021.

Digital Technology and Societal Change. We aim to examine relationships between the growth of digital technologies and social, cultural, economic and political change, including: the effects of digital connectivity and data-driven services on urban life and inequalities; the use of technology by young people for learning, social relations and activism; and, use and adaptation of the built environment and infrastructure based upon crowd-sourced and sensor data.

Our future strategy also includes three other broad aims:

Research Practices. We will further improve the openness, integrity and reporting of our research, methods and findings. We will prepare for future social restrictions through workshops on fieldwork adjustments, alternatives to face-to-face data collection, and increasing use of secondary data. We will conduct our research in accordance with the UofG Climate Change Action Plan to reduce carbon emissions and CoSS recommendations on resilient and sustainable research practices.

Organisational Continuity. *Staffing:* we will ensure that PGRs have the skills to proceed into a range of careers; that ECRs have broad experiences to facilitate careers in various sectors, and opportunities to become Co-Is and PIs; and that mid-career scholars acquire leadership skills and experiences. *Funding:* we aim to maintain our success in competitive research funding and secure the future of our RCs and their staff. *Collegiality:* we will consolidate a culture of collegiality among staff & PGRs, across all our activities.

Knowledge Exchange and Impact. We aim to enhance further our contributions to public understanding, continue to impact on policy and practice, and embed community interaction, co-production and public engagement across all our research.

2. People

2.1 Recruitment Strategy

We aimed to create new posts and attract high quality applicants to support the growing international and interdisciplinary nature of our research, offer research leadership for large projects and centres, and capacity to supervise more PGRs. We have achieved an increase in our research-related staff complement from 31.2 to 58.0 FTEs in the current REF. We have explicitly encouraged applications from underrepresented groups including women and people from BAME backgrounds. Interviews are offered to all self-identified disabled applicants who meet the essential criteria. The proportion of women among our academic research staff has increased to 40%, above the UK average for our discipline (36%). The presence of staff with diverse, international backgrounds has risen significantly to 29% (CatA), just below the UK average for academic staff in our discipline (30%).

Our recruitment strategy is also influenced by a growing teaching responsibility: **USG** teaches 580 undergraduates on 14 courses and 360 postgraduates on 38 courses, **PGT numbers quadrupling since 2014**. We have sought to maintain synergies between our research and teaching and to recruit staff who can develop both. This has included recruiting to address identified priorities across grades: a chair in Urban Futures, and lectureships in transport economics, advanced spatial analysis and social digitisation to work with UBDC; two lectureships in Chinese urbanisation to work with SHLC and UBDC; two new lectureships in real estate and planning, plus a senior lectureship in urban conservation; and three research fellowships focused on issues of urban governance.

Our staff has also become more diverse by job function (Figure 2) to support research and impact activity. A growth in R&T staff from 17.6 to 21.6 FTEs, has been accompanied by a near doubling of Research-only staff from 12.0 to 20.0 FTEs, and substantial growth in Professional Research Support staff, from 0.6 to 16.4 FTEs, meeting our needs for business management, communication, administration, knowledge exchange, data management and data science. Professional staff participate in unit-wide meetings and events to provide knowledge and skills that other staff (not located in the centres) can draw upon, widening our research capabilities.

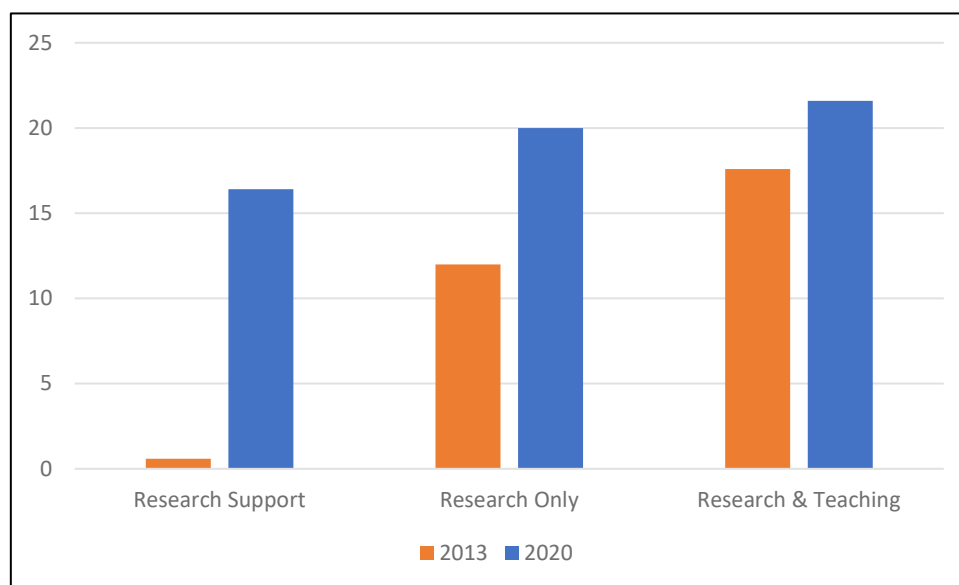


Figure 2. Research Staff Structure (FTEs), 2013 and 2020

2.2 Staff Support and Development

Our most valuable asset is our staff. We want to create an enabling environment in which they produce high-quality research and impact, are rewarded for their success, and build a platform for their careers. Training and development are also key to the sustainability of **USG** at the forefront of urban research. We have focused on three sets of activities:

Supporting Early Career and Research Staff. Ten lecturing staff (five BAME) have taken the UofG Early Career Development Programme (ECDP), providing mentoring, networking and training as well as reduced teaching and admin workloads. Four of the ten have already been promoted to Senior Lecturer. Half of our researchers are Early Career Staff (ECS) on grades 7/8 with ≤8yrs employment, whom we have encouraged to participate in ECDP modules.

We are very committed to the career development of our Research and Professional Support staff, assisting with the development of appropriate policies. We have contributed to the UofG Concordat Action Plan and two **USG** staff are members of the College Concordat Working Group which is developing a clearer career pathway for research staff, considering progression to longer-term contracts, and offering short-term funding to support research grant application writing. We are working with the School Research Committee to improve PI training in supporting research staff; operationalise a School-level jobs opportunity and redeployment scheme; and ensure CPD opportunities are identified, funded and taken. New research posts are notified internally within the School prior to external advertisement.

We have done the following to support research staff career development:

- Offered all research staff a mentor.
- Offered teaching experience: lectures, dissertation supervision; undertaking assessment.
- Encouraged research staff to join PhD supervisory teams.
- Involved research staff in running our unit: research group convenorship; workshop and seminar organisation; membership of our research committee; membership of our research integrity group.
- Provided seedcorn and conference funding to enable researchers to develop their personal research.
- Supported researchers to become Co-Is and PIs, including workshops focused on early career grant funding opportunities.

We aim to do more for researchers within our unit: providing a wide range of skills development; supporting experience in non-academic sectors through secondments; ensuring ten days per annum of CPD are properly funded, planned for and taken up; providing better continuity of employment for staff, with our Research Committee considering researchers with <18 months funding remaining and putting plans in place for career development. With 43% of our researchers being women and 57% of international origin, we recognise the need to respond to the different needs of staff so that all can equally develop their careers.

Career Development for All Staff. We work to ensure that **USG** is a good place for career progression, through:

- Collegiate efforts to help each other produce high-quality publications.
- Providing opportunities for staff to participate in research grant applications and improve their funding profile.
- Encouraging staff to participate in training. CatA staff undertook 102 courses up to the end of 2019.
- Nominating six colleagues to the UofG Leadership Development Programme, including four women; all six were promoted during the REF period.
- Being supportive in the annual Performance & Development Review: staff have valued its role in clarifying expectations, rethinking priorities, identifying training opportunities, assessing personal progress and considering promotion.

- Encouraging staff to apply for promotion, with several colleagues assisting each applicant. Eighteen promotions were achieved in the REF period: eight to men and ten to women. Our success rate of 90% compares with 81% across the University and 75% within the College.
- Our female staff have been particularly successful in promotion and 39% of our Professoriate are women compared with 30% across the School.
- Sixteen staff received annual reward and recognition payments; an area we will monitor in more ways than gender (see below) in future.

Providing Opportunities. We have assisted staff to conduct research in several ways:

- A three-year rolling plan gives six months research leave to lecturing staff on a rotational basis, with adjustments to give relief where most needed.
 - Twenty-five semesters of study leave were granted to 19 staff including nine women and four ECRs.
 - This resulted in 48 academic articles, three reports, one book, one chapter, three book proposals, and 19 research grant applications.
 - Three ICS leads (two female) had research leave to undertake KE activity; several other staff used their leave partly for impact-related activities.
- The School provides up to £1,200 p.a. for conferences without research grant funding:
 - From 2016-17 to 2018-19, 47 conference attendances were supported.
- We awarded 32 sums of seed-corn funding for small research projects in three years.

2.3 Postgraduate Researchers

We aimed to improve our PGR recruitment, progression, completions and destinations. We also wanted to expand our research capacity in key areas by integrating PGRs into the Unit's research activities and widen PGR supervision to strengthen our interdisciplinarity.

Recruitment. We have sought new PhD awards which allow us to align studentships with our research interests and contribute to our equality and diversity and internationalisation aims. Our PGR Convenor (Munro) circulates advance notice of PhD opportunities which prompts discussion about applications and co-supervisions among our RGs and RCs. We have improved our recruitment and been successful in other terms also:

- PhD headcount has increased by 40%, from 25 in 2013/14 to 35 in 2019/20.
- The majority of our PGRs across the seven years have been women (58%) and mature students (81%).
- Of 61 PhD starts, 20 (36.7%) were ESRC funded, mostly from the Collaborative, Advanced Quantitative Methods, and Use of Existing Data-Sets streams.
- 9 PhDs were appointed as part of our RCs.
- International PGRs doubled from 8 in 2013/14 (30%) to 15 in 2019/20 (38%).

Supervision. Supervisors undergo (re)training at least every five years and in between are encouraged to engage with a suite of UofG training and support materials, as well as adhering to the UofG *PGR Code of Practice*. We use multiple supervision and have sought to expand the proportion of staff who supervise and extend the interdisciplinarity of supervision:

- 71% of our CatA staff supervised PhDs in 2019-20.
- 30% of **USG** supervisors are women (vs. 32% of CatA staff).
- 10 of the PhDs have a supervisor from another discipline.

Training. Supervisors and students regularly update a Training Needs Assessment. We encourage our research students (and staff) to attend training courses from the CoSS Researcher Development Programme (c.20 modules), the Scottish Graduate School of Social Sciences (SGSSS) Summer School, and UBDC. We provide funds for student-led training events including writing retreats, seminars and away days. This approach is reflected in positive results for Glasgow in the Postgraduate Research Experience Survey (PRES) 2019:

- Social Studies at Glasgow is in the top quartile for satisfaction with research skills.
- 95% of PGRs agree they have improved their critical skills.
- 97% agree their understanding of research integrity has improved.

Support & Integration. PGRs offer fresh perspectives on issues, theories and methods of interest to all unit members. We aim to make PGRs feel part of a lively, research-active unit: they are firmly embedded in our research groups; play a full part in our staff meetings, seminars and workshops; and have access to our discretionary research funding. An elective, interdisciplinary PhD peer mentoring programme operates across the University.

Career Development. We provide opportunities for PGRs to gain experience beyond their research, including via the CoSS PGR Opportunities Hub which provides activities designed to meet the transferable skills in the Research Councils' *Researcher Development Framework*:

- Seven PGRs have had internships with external (public) organisations, and six internal internships were organised by the College Graduate School.
- Nine CatA staff have employed 14 PGRs for up to six months, mostly as RAs.
- Co-Authorship to enable PGRs to become familiar with the academic publishing process and demonstrate the skills and quality required. Eleven CatA staff have co-authored 22 academic articles with PGRs.
- Employing PGRs as Graduate Teaching Assistants at undergraduate level, enabling them to give occasional lectures at postgraduate level, and employing several as Tutors after completion of their thesis.
- An equivalent Graduate Research Assistant scheme is in development. PGRs can join a pool of researchers to be employed by staff for short-periods on research projects.

Completions. We have aimed to improve our PGR completion through careful student selection, good supervision, close monitoring of progress, training and support:

- **Completions have more than doubled from 14.5 in the last REF period (5yrs) to 32.6 in the current period (7yrs)** (supervision load).
- The highest number of completions, 8.35, was in 2019-20.

Destinations. Our approach has helped PGRs secure employment. Of 43 PhD completions (headcount) in the current REF period:

- 22 (51%) work in academia as research associates or lecturers (inc. two tutors).
- 9 (21%) work in the third sector, most as researchers.
- 6 (14%) work in public sector research and policy.
- 3 (7%) work in private sector planning consultancy.
- 2 (5%) are retired.
- 1 (2%) destination unknown.

2.4 Equality and Diversity

Our School's Equality, Inclusion and Diversity Committee are focusing on three issues reflected in our unit. **Equity:** in relation to fair and just workload distributions with transparency and wellbeing considerations. **Prearity:** to reduce the use of fixed term contracts (affecting one-in-ten academic staff) and develop a bridging scheme for researchers with contract end dates (one-in-four staff). **Disability and Chronic Illness:** to remove barriers to employment and offer flexible working, particularly for those with invisible disabilities.

Within **USG** specifically we have given attention to several aspects of E&D.

Gender. All staff involved in recruitment have undergone unconscious bias training (78% of CatA staff), and 96% of CatA staff have taken the UofG Equality and Diversity training. We try to ensure that our working environment is respectful of all genders in terms of language and behaviour. We encourage everyone to take advantage of opportunities and address low uptake with individuals if necessary. We adjust for caring responsibilities when allocating tasks and duties, especially

during 2020. None of our staff report feeling disadvantaged in our unit due to gender. Our approach to gender issues has resulted in the following:

- 39% of CatA professors are women, higher than UofG (31%) and the UK HE sector (27%).
- 53% of promotions across the REF period were to women and 40% of reward payments.
- Significant shares of discretionary research payments were made to women: 55% of conference awards; 53% of seed-corn awards.

Country of Origin. A fifth of our staff (22%) are BAME, higher than for our discipline (17%); some are disadvantaged by migrating away from their home country and operating in an unfamiliar environment. To support these staff, we have: provided mentoring and advice about how UK academia operates; reached out to offer support when disturbances or disasters have occurred in their home countries; offered support to our EU colleagues to ensure they feel welcome and valued during Brexit; provided conference and travel funds where staff have identified research opportunities in their home countries; given peer review support to improve the written English of submitted papers. We encourage staff to share knowledge and experience from their home countries in our meetings, workshops and seminars.

Other Protected Characteristics. We have a much higher declaration of BAME status among our staff than UofG (22% vs. 9%), and a similar rate of declared disability (2% vs. 3%). For information on other characteristics - including age, LGBT status and material disadvantage - we conducted an anonymous online survey in 2020. Sixteen percent of respondents felt they had been disadvantaged by protected characteristics during their time at US/UofG. Several areas were identified for improvement: acknowledgement of disability issues in review and reward processes; ensuring no age bias in recruitment; encouraging the views of younger staff. A unit working group is developing a response, likely to include establishing our own Equality, Diversity and Inclusion (EDI) Committee.

Equality between Staff Groupings. We go beyond institutional requirements where possible: offering mentoring to research staff; making discretionary research funds available to PGRs and KE staff; reviewing publications for non-CatA staff; involving all categories of staff in our activities and committees. We have been at the forefront of trying to develop better employment continuity and security for UofG research and professional support staff. Issues of workload and wellbeing disadvantage brought to the fore in 2020 were addressed by our Head of Subject and will be considered in future through our EDI committee.

The environment we seek is illustrated by these remarks:

“I am so proud to be part of Urban Studies, which I joined in 2017. As a researcher on a fixed-term contract, I have never felt so valued and supported in so many ways. This friendly, collegiate environment helped me overcome my insecurities, gain self-confidence, becoming more productive and creative.” (Adriana Soaita, Research Fellow)

3. Income, Infrastructure and Facilities

3.1 Aims & Achievements

We aimed to expand our research funding in ways which would enable us to meet our other objectives, namely: to develop our areas of research strength (which had expanded to include health, transport, and urbanisation in LMIC); publish high-quality academic articles as well as applied outputs; develop our doctoral programme alongside our staff research activity; and engage in knowledge exchange to the benefit of policy, practice and society.

To this end, we sought research funding in the following ways:

- From UKRI and similar sources, to ensure research quality, scale and sustainability.
- From additional sources to match new areas of interest.
- From governments and major charities to increase scope for policy impact.
- From overseas funders, to aid engagement and impact in other territories.

- Involving as many staff as possible, benefitting our unit and individual careers.

We achieved our aims, as follows:

- **Near-quadrupling research income from £4.2m in REF2014 to £15.8m in REF2021.**
- 73.1% of income was from UKRI, vs. 20.4% in REF2014.
- Funding three new research centres, total UKRI value of £24.3m.
- £3.9m income from governments and charities.
- 89% of CatA staff raised research income.
- The share of income raised by female staff, 38%, reflects their staff presence (40%), increasing from 15% in 2013/14.

3.2 Strategy

Our approach to obtaining this level of grant funding comprised six elements.

Training. As well as encouraging staff to attend CoSS courses on research grant preparation, we run our own workshops on writing grant applications. In 2020 we held two such events, with twenty participants at each.

Support. We allocate a peer-support to each principal applicant, with three rounds of review: at Unit, School and College levels. We provide examples of successful grant applications to staff. We use discretionary funds to support pilot studies and preparatory work, e.g., 13 awards made to staff in 2018-19, including to six ECRs.

Academic Collaboration. In order to generate research proposals that meet our interdisciplinary aims and are capable of addressing the complex, multisectoral urban problems we seek to address, we collaborate extensively within UofG including with seven other research centres, five interdisciplinary research networks; and eleven subjects. We maintain extensive collaborations with academics in other HEIs, with 80 formed to prepare grant applications in the REF period (Section 4).

Policy & Practice Collaboration. In order to address real-world problems and assist issues of policy and practice, our proposals involve collaborations and contributions from external partners. Inputs from these partners have taken a number of forms: setting aims; facilitation of fieldwork; staff inputs in kind, e.g., to analyse data; provision of service level data; donations of equipment; administration of overseas financial and employment matters; and assistance with KE&I activities.

Utilisation of HEI Equipment, Facilities and Expertise. We make regular use of facilities and expertise at UofG and elsewhere in our grant proposals, e.g.:

- Quantitative Research Skills: We involve the SPSS Professor of Quantitative Social Science in our research, e.g., ESRC project on the health impacts of benefit sanctions.
- Archives: A successful grant application to Leverhulme and collaboration with History relied upon UofG Archive Services providing access to a social survey from the 1960s.
- Data Sets: A successful application to the ESRC relied upon access to property valuation rolls, retail data, and land registry data available via UBDC.
- Secure Data Hubs: Staff have made use of the University of Edinburgh's Data Share and the NHS's eDRIS.
- We use the services of three UofG policy knowledge exchange entities: What Works Scotland (a collaboration with University of Edinburgh); Policy Scotland (collaboration of SSPS with the Schools of Education and Law); and Scottish Cities Knowledge Centre (collaboration with St Andrews University).

Professional Staff Input. To improve the quality of applications and meet funder requirements, we work closely with UofG professional staff. The College's Research Support Office (RSO) has helped identify overseas partners and assisted with contractual arrangements and data sharing agreements with partners. The Library's Data Management Team have helped draft data

management plans and assisted with meeting GDPR requirements. The College RSO has assessed funder requirements and eligibility issues, assisted with preparation of research budgets at an early stage, and KE staff have given detailed feedback on impact plans. Each application has a dedicated project coordinator to assemble these inputs.

3.3 Grant Applications

The concerted effort and broad approach taken to acquiring research funding helped us to make more research grant applications than previously, with increased success:

- From Aug 2013 to April 2020 staff participated in 252 research grant applications (81%>£5k; 30%>£100k), four-fifths as PI.
- The success rate was 61%.
- 41% of applications were made by women; 27% by Early Career Staff .
- The rate of grant holding among R&T staff increased from 58% in 2015 to 83% in 2019.
- 88% of female and 73% of male R&T staff held new awards during the period.

Our success in income generation is the result of our staff development and vibrant research environment, enabling contributions to the discipline, policy and society.

4. Collaborations and contributions to the research base, economy and society

4.1 External Academic Collaborations

Our strategy was to expand our capacity through collaborations, giving us geographical reach, access to different research skills, alternative theoretical perspectives on problems, and local knowledge for case-study research. Disciplinary diversity helps us establish new collaborations, supported by our environment through:

- Signalling at internal events that research should be collaborative where-ever possible.
- Including discussion of collaborations and networking in staff reviews and as a criterion for promotion to SL or above.
- Providing funding (from our unit and UofG) and practical assistance to aid collaboration.
- Encouraging staff to apply for networking grants.
- Utilising UofG partnerships and MoUs to access external collaborators.

This has resulted in **USG** forming 120 external research collaborations over the REF period (1 to 11 partner HEIs in each). Forty-eight collaborations involve HEIs in Europe, Africa, Asia, Far East Asia, and America. Many involve departments of architecture, planning, urban studies and geography, but 53 involve other disciplines. Nineteen collaborations were institutionally supported: 8 by our discretionary research funds; 4 by Study Leave; 4 by UofG partnerships; 2 by ESRC IAA funds; and 2 by Urban Studies Foundation.

The collaborations have a number of forms and purposes:

Our research centres are multi-collaborations. UBDC was established with 5 UK partners; SHLC has 8 international partners recruited through previous working relationships (Bangladesh, China, India, South Africa), and via UofG colleagues (Tanzania, Rwanda and Philippines); CaCHE has 9 UK partners, established with UofG support.

Long-term collaborative research programmes include the ten-year 'Serving Deprived Communities in a Recession' with the Urban Institute at Heriot-Watt University (Hastings), and the five-year 'What Works Scotland' programme funded by ESRC/Scottish Government involving collaboration with Politics and the Centre for Research into Families and Children at Edinburgh University (Gibb).

Staff have co-founded five research networks: Scottish Centre for Administrative Data Research (Bailey; ESRC); Welfare Conditionality research project and 'Welcond International Network'

across eight countries (Wright; ESRC); 'Anti-Politics and Austerity Network' across six countries (Beveridge; ISRF); 'Post-dependence Geographies in Central and Eastern Europe Network' (Gawlewicz; RSA); 'Social Network Analysis in Scotland Research Network' involving six universities (Wong).

Knowledge exchange and impact collaborations have included: Urban Dialogues partnership with Humboldt University and Technical University Dresden (Beveridge); Decolonisation in Central and Eastern Europe blog with Sociology at Gloucester University (Gawlewicz); 'Shaping Housing Futures' forum with housing providers and Universities of Toronto and New South Wales (Gibb; Maclennan).

Of the remaining collaborations:

- 15 are writing collaborations to produce articles and books.
- 80 were formed to prepare grant applications (59 successful).
- 12 involve internally-supported research projects.

4.2 Engagement with Professional, Practitioner and Commercial Organisations

Engagement with external, non-academic organisations is essential to our research and impact agenda and regularly produces mutual benefits. These relationships help to identify policy and practice problems and co-produce research designs to help tackle them, provide access to data and key informants to facilitate research, and open avenues to further knowledge exchange. Examples of ongoing relationships developed during the period include:

British Standards Institute. Joss has helped a BSI committee to develop their smart city standards and BSI have funded a collaborative PhD studentship to research the standards in practice.

Energy Agency. Kearns serves on the steering committee for EA's evaluation of its area-based housing improvement programme. EA have funded a collaborative PhD studentship on occupant behaviour and fuel poverty.

Historic Environment Scotland. Madgin's AHRC project on Emotional Attachments to the Historic Environment involved collaboration with HES, including a secondment, staff workshops and strategic policy work on local heritage recognition. HES supported a KE grant application.

NESTA. Wong, with colleagues in other HEIs, partnered with this UK research and innovation foundation, leading to a proposed Centre for Digital Living and Homes.

Scottish Parliament Information Centre and the Improvement Service. Hastings, Gannon and Bailey worked with SPICe and IS, including through a work placement, to produce analysis and analytical tools to examine the local impacts of public sector budget cuts. The partnership received a nomination under the Scottish Public Service Awards 2019. UBDC and CaCHE have worked with SPICe to generate a three-year research programme on raising PRS standards and a collaborative PhD.

STRAVA. The fitness and mobile technology company provided their data to UBDC for use in researching cycling behaviours. In return, UBDC have provided data validation and advice on adjustments for GDPR compliance.

TravelAi. McArthur worked with this private sector company to help develop mobility data from a transport planning app. The partnership led to a research grant application to MRC on health evaluation of transport interventions.

4.3 Engagement with the Public and Communities

Public engagement ensures that our research remains relevant to public interests and concerns. We use skills-based workshops in the Unit, our Impact Lab, and the UofG Research Impact Café to consider new means of public engagement. More of our staff have become experienced in using social media, including Twitter, Facebook and blogs on websites to raise awareness of their research. CaCHE also has a YouTube channel with three dozen videos. We use a variety of means of engagement for different purposes.

To help generate a research and policy agenda. CaCHE established a KE Hub in Glasgow's East End comprising local organisations (three community centres, three housing associations, a play group), tenants and residents. Twice-yearly workshops are used to generate research and policy priorities both to inform CaCHE's work and the delivery of services by city authorities.

To generate general interest in our areas of research. Staff use blogs and podcasts to generate public engagement with their research. A proactive approach to the **USG** Twitter account has resulted in an average of 600 visits and 40,000 impressions per month during 2020. We also engage the public at events: CaCHE used the Festival of Social Science 2019 to hold events in London (on unaffordable house prices) and Glasgow (on tenements as a lens to examine social and urban change). SHLC used World Cities Day 2019 to hold Lightning Lunchtime Talks about a range of urban issues in the UK, Africa and South Asia. Foye participated in a panel at the London Festival of Architecture 2019 to discuss housing and subjective well-being. Joss presented work on smart cities at the Edinburgh Science Festival.

To give feedback to research participants. The GoWell Programme has presented its findings at events held in fifteen study communities and regularly distributed newsletters to all residents. In research with citizen scientists on heat resilience in Phoenix, Arizona, Zhao worked with an NGO to arrange feedback sessions with participants and point them towards further support.

To raise awareness of an issue highlighted by research. Where opportunities arise and funding permits, we have used innovative means to communicate research findings to the public, including:

- Photo exhibition about LGBT migrants' experience, *Home is Where the Heart is* (Gawlewicz).
- Informing a play about the effects of welfare conditionality, *In for a Penny*, which was performed at the Edinburgh Fringe (Wright).
- Creating a film about the importance of attachment to urban places and spaces, *'You Can't Move History'*, AHRC Research Film of the Year (Madgin).
- Collaborating with a charity to produce a podcast about personalisation in social care for users involved in self-directed support (Pearson).
- Delivering lectures and a workshop on EU migration to over 1,000 people for the charity *Peace Boat* as part of a global voyage in 2019 (Gawlewicz).
- Producing a film about feeling 'at home' in deprived communities of the East End of Glasgow (James).
- Animation on housing unaffordability produced in collaboration with the Affordable Housing Commission with UofG KE funding (Foye).
- A vlog on the impacts of Covid-19 on the homeless (CaCHE).

4.4 Contributions to Policy, Society and the Economy

Our aim has been to make contributions to public debate and policy in five areas, each with the intention of improving urban conditions and outcomes for disadvantaged individuals and communities. Examples of our sectoral contributions include:

Housing. Our research has supported the case for increased supply of affordable housing and the better functioning of the housing system in the UK and elsewhere.

- In Scotland, our research on alternative housing tenures, funding models and housing wealth inequalities has underpinned contributions to several bodies: Scottish Joint Housing Policy Delivery Group; Shelter's Commission on Housing and Wellbeing (principal advisor, Gibb); Poverty and Inequality Commission; evidence for the recommendation for increased social housing supply made by the First Minister's Independent Adviser on Poverty and Inequality (Gibb and Stephens).
- Stephens led the review of rent policies in the social sector in Wales and provided the formula for maximum rent increases over five years.
- At UK level, CaCHE reports on Evaluating Housing Outcomes and the Future of Social Housing have been taken up by professional bodies and fed into the work of the Department of Housing, Communities and Local Government, with formal roles in the Chartered Institute of Housing's Social Housing Commission (co-chair, Gibb) and Lord Best's Affordable Housing Commission. Stephens edits the *UK Housing Review*, named as 2020's second most influential housing publication.
- Internationally, Gibb's work has informed the European Housing Partnership's action plan and the European Commission's stance on affordable housing.
- Work on affordable housing supply and on the economic benefits of housing infrastructure investment (Maclennan) have been influential on policies at national, state and city levels in the UK, Australia and Canada.
- Wang's research on housing in China helped change official policy to support more social housing and to accept the role of urban villages as an important form of supply.

Planning. We have shown how land use policies could be fairer to communities and to different users, both in the UK and Africa.

- Our research has had significant influence on the work of the Scottish Land Commission, including providing the case for compulsory purchase and development of vacant land (see Adams ICS), and the identification of best practice in land allocation for new homes and the design of high-quality places (CaCHE Housing and Place Delivery Forum).
- Research on the securing of public benefits from developers in other countries (O'Brien) has informed the work of the RTPI's *Value in Planning* agenda.
- Research on sub-cultural users of 'found space' helped reverse a major planning decision on London's South Bank's Undercroft and changed how the Heritage Lottery Fund treats sub-cultural heritage and engages with young people (Madgin).
- Collaborative work with the third sector in Zimbabwe has informed advocacy for radical land reform across Africa (James).

Local Government. We demonstrated the need for greater equity in local public spending and services through reforming current practices.

- Through What Works Scotland, our research showed the potential for participatory budgeting and preventative spending in four local authorities.
- We submitted evidence and an adopted recommendation to the Scottish Government's Commission on Local Tax Reform and the Scottish Parliament's Inquiry on Local Government Funding (Gibb).
- Our research on budget cuts during austerity provided tools for local authorities to examine community impacts of their spending decisions (see Hastings, Bailey, Gannon - ICS).
- Our role in supporting the Glasgow Commission on Economic Growth has provided the means to ensure inclusive growth (Maclennan, Waite).
- Staff have informed the deliberations of local authority committees, including: West Dunbartonshire Community Planning Partnership (Bynner; Gibb) and Urban Design Review Panel (White); North Lanarkshire Council's Fairness Commission (Gibb; Hastings).

Welfare. We provided evidence to policymakers, public agencies and advocacy groups to prevent some of the most detrimental impacts of welfare reforms over the past decade.

- Pearson provided evidence to the Disability Benefits Consortium UK and to the Independent Living Fund Scotland which increased eligibility and improved the treatment of young disabled people.

- Wright (ICS) provided evidence to several bodies at Scottish, UK and International levels which has resulted in changes to newly introduced welfare regulations including the removal of phone call charges for claimants at UK level and the avoidance of sanctions by the new Social Security Scotland agency.
- Bailey and Pattaro provided evidence to the House of Commons Select Committee to show that welfare sanctions were not having employment impacts.
- Stephens and Gibb provided evidence to Shelter Scotland to support arguments for a reformed Housing Benefit system.

Health and Social Care. Research by Mackenzie and others has informed front-line practices:

- Research to strengthen statutory guidance on protecting the victims of forced marriage.
- Evaluating a social prescribing trial, which supported its roll-out nationwide.
- Research on structural competency in GP-patient interactions to inform GP training.
- Research leading to a revised referral protocol between the police and primary care for women suffering domestic abuse, which also informed social worker training.

4.5 Contributions to the Discipline

We see **USG** as being at the heart of Urban Studies nationally and internationally and aim to maintain this through researcher development, leadership roles, review and advisory work and provision of data infrastructure.

Researcher Development. We perform a key training and career development function for urban studies scholars, keeping us connected to units across the globe. There are currently 21 professors at other HEIs who worked at **USG**. In the current REF period, 14 researchers left **USG** to work elsewhere as researchers (3), lecturers (7) and professors (2 assistant, 2 full). Staff play major roles in SGSSS: Deputy Director (Mackenzie), pathway lead (Munro) and trainers (Bailey, McArthur). Each of our research centres has a capacity building function:

- CaCHE established an Early Career Researcher Network with the Housing Studies Association and runs a PhD summer school.
- SHLC is training a cohort of 57 urban researchers across Africa and Asia. It also provides a Visiting Fellow Exchange programme for researchers in ODA countries and a Capacity Development Grant to support small research projects in LMICs.
- UBDC has provided training courses to over 1,000 researchers, including three summer schools and over 100 courses.

Leadership Roles. Potential roles within the discipline are discussed in annual reviews and recognised in promotion criteria. Substantial roles are taken into account in the allocation of workloads. Staff perform a wide range of roles as a result:

- Ten staff (four female) have served on 13 research funding committees, including 7 for RCUK and 6 for overseas organisations.
- Seven staff held positions with academic societies covering planning, geography, politics and transport studies.
- Staff served on 13 conference organising committees, and as panel organisers on thirteen occasions.
- Thirteen staff (six female) served on the committees of sixteen journals, including eight editorships.
- Eight journal special issues have been edited by staff.

Review and Advisory Work. We encourage staff to undertake review and advisory work as a disciplinary contribution and to keep abreast of theoretical and methodological developments. This has included:

- Reviewing articles for 120 academic journals: geography and geoscience (41 journals); planning, real estate and transport studies (22); housing and urban studies (19); health (14); sociology (14); politics and social policy (10).

- Reviewing research grant proposals for 14 national bodies (e.g., AHRC, ESRC, EPSRC, MRC, CSO, BA) and 17 overseas bodies and transnational initiatives.
- Serving on research advisory groups for over 20 projects funded by a range of organisations including AHRC, UKRI/GCRF, China Social Science Foundation.

Contribution to UK's National Data Infrastructure. UBDC's data service enhances access for HEI researchers to new forms of data for urban research. It provides multiple open, safeguarded (licensed) and secure access data sets, along with associated technical infrastructure, data governance and capacity building activities.

Other Contributions and Recognition. Other recognitions of our contributions include:

- Twelve Fellows of the Academy of Social Sciences (one third of UofG fellows); 5 Fellows of the Royal Society of Arts; one Fellow of the Royal Historical Society.
- Two staff (Kearns and Wang) were named among the top 50 most cited scholars in the field of Urban Studies over a 20-year period.
- Research on determinants of food bank use (Macleod) received the SPA/CUP Excellence in Social Policy Scholarship Award 2020.
- Eight staff had a top-three most-cited journal article during the period.
- Plenary talks were given to 16 academic association conferences, 11 professional body conferences, and to conferences organised at 11 UK universities and 26 overseas HEIs.
- 42 PhDs were examined at other institutions, including 13 overseas.