





# Francisco Rowe

Geographic Data Science Lab  
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## EDUCATION

- Ph.D. 2013 - Economic Geography, University of Queensland, Brisbane, Australia.  
M.S. 2007 - MSc in Regional Science, Universidad del Norte, Antofagasta, Chile.  
B.S. 2006 - BA in Business Management with specialisation in Economics, *summa cum laude*,  
Universidad del Norte, Antofagasta, Chile.

## APPOINTMENTS

### Current appointments

- 2018– Senior Lecturer in Quantitative Human Geography  
Department of Geography and Planning, University of Liverpool, Liverpool, United Kingdom  
2020– Lead of the Geographic Data Science Lab  
Department of Geography and Planning, University of Liverpool, Liverpool, United Kingdom  
2018– Institutional Lead of the Longitudinal Data Analysis Specialised Training Route, ESRC -  
North West Social Science Doctoral Training Partnership.

### Past appointments

- 2016–18 Lecturer in Quantitative Human Geography  
Department of Geography and Planning, University of Liverpool, Liverpool, United Kingdom  
2013–16 Postdoctoral Research Fellow  
School of Geography, Planning and Environmental Management, The University of  
Queensland, Brisbane, Australia.  
2014–16 ResTeach Fellow  
School of Geography, Planning and Environmental Management, The University of  
Queensland, Brisbane, Australia.  
2010–13 University Tutor  
School of Geography, Planning and Environmental Management; The University of  
Queensland, Brisbane, Australia.  
2010–13 Research Assistant  
Queensland Centre for Population Research, School of Geography, Planning and  
Environmental Management, The University of Queensland, Brisbane, Australia.  
2010–11 Research Assistant  
Queensland Centre for Population Research, School of Geography, Planning and  
Environmental Management, The University of Queensland, Brisbane, Australia.

- 2008–09 Research Officer  
Millennium Nucleus for Regional Science and Public Policy. The Chilean Ministry of Planning and Universidad Católica del Norte, Antofagasta, Chile.
- 2007–08 Research Analyst  
CONYMET, Antofagasta, Chile.
- 2007–08 Lecturer (Part-Time),  
Faculty of Business and Economics, Department of Economics, Universidad Católica del Norte, Antofagasta, Chile.
- 2007 Lecturer (Part-Time),  
School of Business Management, Universidad Santo Tomás, Antofagasta, Chile.

## **EDITORIAL ROLES**

- 2021– Social Media Editor  
Journal of Royal Statistical Society – Series A
- 2018– Co-Editor  
REGION. The Journal of the European Regional Science Association.
- 2019–20 Special Issue Editor  
Special Issue: The Potential of Notebooks for Scientific Publication: Reproducibility, and Dissemination. REGION. The Journal of the European Regional Science Association.
- 2015-17 Special Issue Editor  
Special Issue: Youth and graduate migration, The Annals of Regional Science.

## **COMMITTEE MEMBERSHIPS**

- 2020– Spatial Inequality Expert Advisor. Teesside Task Force. The UK2070 Commission.
- 2020– Use of Administrative Data Expert Advisor. Office of National Statistics (ONS) Government Statistical Service Advisory Committee.
- 2018–19 Migration Expert Advisor. RECH Contribution Committee. Repayment mechanisms of Chile government’s international postgraduate scholarship programme.

## **FUNDING AND AWARDS**

### **Grants**

- 2021 “Inequalities IN Experiencing uRbAn fuNcTion (ITINERANT)”. Engineering and Physical Sciences Research Council (EPSRC) / The Alan Turing Institute 2.0. Co-I. £96,623.33.
- 2021 “Supporting evidence-based policy actions”. Public Policy QR Strategic Priorities Fund. University of Liverpool. PI. £20,000.
- 2020 “Generating actionable evidence for containing the spread of misinformation”. Liverpool COVID-19 Partnership Strategic Research Fund. Co-I. £20,100.
- 2020 “Misinformation and COVID-19 in social media in Venezuela.” Global Challenges Strategy Group, University of Liverpool. Co-I. £5,000

- 2020 “Understanding and Predicting the Long-term Labour Market and Migration Trajectories of Immigrants and Their Children in the United Kingdom”. Economic and Social Research Council (ESRC) North West Social Sciences Doctoral Training Partnership (NWSSDTP). PI. £120,000.
- 2017 “Past and future of urban structures in Latin American cities”. ODA Seed Fund Project, University of Liverpool. Co-I. £8,900.
- 2016 “Understanding the declining trend in internal migration in Europe”. Regional Studies Association (RSA). PI. £33,490.39.
- 2016 “4th Chilean Graduate Conference: Advanced knowledge to enhance Chile’s development”. Council on Australia Latin America Relations (COALAR) project. PI. AU\$10,000 (maximum amount available).
- 2016 “Application of advanced knowledge to enhance Chile’s development”. ChileGlobal Project. PI. AU\$22,500 (maximum amount available).
- 2012 “Doctoral studentship: Modelling the spatial patterns of labour mobility in Chile”. National Commission for Scientific and Technological Research (CONICYT). Government of Chile. PI. £140,000.

### Consultancy

- 2021 “What do ‘left behind’ areas look like over time?” Let Behind Neighbourhoods Local Trust. <https://localtrust.org.uk>
- 2020 “Analysis of Twitter data to measure anti-migration sentiment during COVID- 19”. International Organization for Migration. Global Migration Data Analysis Centre (GMDAC). <https://gmdac.iom.int>
- 2020 “Data science training programme”. The Universities and Colleges Admissions Service (UCAS). <https://wwwucas.com>

### Awards

- 2021 “Journal of Geographical Systems Editors’ Choice Award”. Best article: Projecting the demographic impact of Syrian migration in a rapidly ageing society, Germany. Special Issue “Spatial Demography in Regional Science”. doi.org/10.1007/s10109-021-00357-3
- 2018 “Best Paper Spatial Economic Analysis”. An evolutionary approach to the delimitation of labour market areas: an empirical application for Chile. Regional Studies Association. doi.org/10.1080/17421772.2017.1273541
- 2014 “Dean’s Award for Research Higher Degree Excellence”. University of Queensland. Fewer than 10% of PhD graduates from the University of Queensland are recognised this way each year.
- 2007 “Best educational performance award, 2002 Business Management cohort”. Universidad Catolica del Norte.

## PUBLICATIONS

### Journal Articles

- 2021 Arribas-Bel, D., Green, M., Rowe, F., Singleton, A., “Open Data Products. A Framework for Creating Valuable Analysis Ready Data.” *Journal of Geographical Systems*, in print. [xxx](#)

- 2021 Gietel-Basten, S. Sobotka, T., Rowe, F. et al. “Trends in population health and demography”. *The Lancet*, 398(10300), pp.580-581. doi.org/10.1016/S0140-6736(21)01051-5
- 2021 Patias, N., Rowe, F., Cavazzi, S. and Arribas-Bel, D., “Sustainable urban development indicators in Great Britain from 2001 to 2016.” *Landscape and Urban Planning*, published online ahead of print. doi:10.1016/j.landurbplan.2021.104148
- 2021 Riffe, T., Acosta, E., and Rowe, F., et al. “Data Resource Profile: COVerAGE-DB: a global demographic database of COVID-19 cases and deaths.” *International Journal of Epidemiology*, 50(2), pp.390-390f. doi.org/10.1093/ije/dyab027
- 2021 Graells-Garrido, E., Serra-Burriel, F., Rowe, F., Cucchietti, F.M. and Reyes, P., “A city of cities: Measuring how 15-minutes urban accessibility shapes human mobility in Barcelona”. *PLoS one*, 16(5), p.e0250080. doi.org/10.1371/journal.pone.0250080
- 2021 Dolega, L., Rowe, F. and Branagan, E. “Going digital? The impact of social media marketing on retail website traffic, orders and sales”. *Journal of Retailing and Consumer Services*, 60, p.102501. doi.org/10.1016/j.jretconser.2021.102501
- 2021 Newsham, N., Rowe, F. “Projecting the demographic impact of Syrian migration in a rapidly ageing society, Germany”. *Journal of Geographical Systems*. 23, 231–261. doi.org/10.1007/s10109-018-00290-y
- 2021 Gu, H., Rowe, F., Liu, Y. and Shen, T. “Geography of talent in China during 2000–2015: An eigenvector spatial filtering negative binomial approach”. *Chinese Geographical Science*, 31(2), pp.297-312. doi.org/10.1007/s11769-021-1191-y
- 2021 Green, M., Musi, E., Rowe, F., Charles, D., Pollock, F.D., Kypridemos, C., Morse, A., Rossini, P., Tulloch, J., Davies, A. and Dearden, E. “Identifying how COVID-19-related misinformation reacts to the announcement of the UK national lockdown: An interrupted time-series study”. *Big Data & Society*, 8(1), p.20539517211013869. doi.org/10.1177/20539517211013869
- 2021 Tang, A., Perales, F., Rowe, F. and Baxter, J. “The going gets rougher: exploring the labour market outcomes of international graduates in Australia”. *Life Course Centre Working Paper*, (2021-04). doi.org/10.2139/ssrn.3791715
- 2021 Backman, M., Lopez, E. and Rowe, F. “The occupational trajectories and outcomes of forced migrants in Sweden. Entrepreneurship, employment or persistent inactivity?”. *Small Business Economics*, 56(3), pp.963-983. doi.org/10.1007/s11187-019-00312-z
- 2020 Rowe, F., Maier, G., Arribas-Bel, D. and Rey, S. “The Potential of Notebooks for Scientific Publication, Reproducibility and Dissemination”. *Region*, 7(3), pp1-5. doi.org/10.18335/region.v7i3.357
- 2020 Chen, M., Fahrner, D., Arribas-Bel, D. and Rowe, F. “A reproducible notebook to acquire, process and analyse satellite imagery”. *Region*, 7(2), pp15-46. doi.org/10.18335/region.v7i2.295
- 2020 Rowe, F., Bell, M., Bernard, A., and Charles-Edwards, E. “Internal Migration Intensity and Impact in Europe”. *European Demographic Data Sheet 2020. Vienna Institute of Demography*. doi.org/10.31219/osf.io/a6x3q
- 2020 Green, M.A. and Rowe, F., 2021. “Explaining the widening distribution of Body Mass Index: A decomposition analysis of trends for England, 2002–2004 and 2012–2014”. *Area*, 53(2), pp.362-372. doi.org/10.1111/area.12675
- 2020 Rowe, F. and Patias, N., 2020. “Mapping the spatial patterns of internal migration in Europe”.

- Regional Studies, Regional Science*, 7(1), pp.390-393. doi.org/10.1080/21681376.2020.1811139
- 2019 Rowe, F., Bell, M., Bernard, A., Charles-Edwards, E. and Ueffing, P. “Impact of Internal Migration on Population Redistribution in Europe: Urbanisation, Counterurbanisation or Spatial Equilibrium?”. *Comparative Population Studies*. 44. doi.org/10.12765/CPoS-2019-18
- 2019 Rodríguez Vignoli, J. and Rowe, F. “Efectos cambiantes de la migración sobre el crecimiento, la estructura demográfica y la segregación residencial en ciudades grandes: el caso de Santiago, Chile, 1977-2017”. *Serie Población y Desarrollo. United Nations*. 125, pp.1-91 hdl.handle.net/11362/44367
- 2019 Singer, L., Green, M., Rowe, F., Ben-Shlomo, Y., Kulu, H. and Morrissey, K. “Trends in multimorbidity, complex multimorbidity and multiple functional limitations in the ageing population of England, 2002–2015”. *Journal of comorbidity*, 9, p.2235042X19872030. doi.org/10.1177/2235042X19872030
- 2019 Singer, L., Green, M., Rowe, F., Ben-Shlomo, Y. and Morrissey, K. “Social determinants of multimorbidity and multiple functional limitations among the ageing population of England, 2002–2015”. *SSM-population health*, 8, p.100413. doi.org/10.1016/j.ssmph.2019.100413
- 2019 Patias N., Rowe F., Cavazzi S. “A Scalable Analytical Framework for Spatio-Temporal Analysis of Neighborhood Change: A Sequence Analysis Approach”. In: Kyriakidis P., Hadjimitsis D., Skarlatos D., Mansourian A. (eds) *Geospatial Technologies for Local and Regional Development. AGILE 2019. Lecture Notes in Geoinformation and Cartography*. Springer, Cham. doi.org/10.1007/978-3-030-14745-7\_13
- 2019 Rowe, F, Patias, N. and Arribas-Bel, D. “Neighbourhood Change and Trajectories of Inequality in Britain, 1971-2011”. Policy Brief. *The UK2070 Commission Paper Series*. uk2070.org.uk/publications/
- 2019 Rowe, F.R., Patias, N. and Rodríguez-Vignoli, J. “R Package ‘CIM’: Compositional Impact of Migration”. *CRAN R project*. CRAN.R-project.org/package=CIM
- 2019 Koster, S. and Rowe, F. “Fueling research transparency: Computational notebooks and the discussion section”. *Region*, 6(3), pp.1-2. doi.org/10.18335/region.v6i4.309
- 2019 Stubbings, P., Peskett, J., Rowe, F. and Arribas-Bel, D. “A hierarchical urban forest index using street-level imagery and deep learning”. *Remote Sensing*, 11(12), p.1395. doi.org/10.3390/rs11121395
- 2018 Rowe, F. “Establishing the extent and pace of the contemporary trend of migration decline in Europe”. *Regions E-Zine: Regional Studies Association*. doi.org/10.1080/13673882.2018.00001008
- 2018 Rodríguez-Vignoli, J. and Rowe, F. “How is internal migration reshaping metropolitan populations in Latin America? A new method and new evidence”. *Population Studies*, 72(2), pp.253-273. doi.org/10.1080/00324728.2017.1416155
- 2018 Vignoli, J.R. and Rowe, F. “Internal migration and spatial de-concentration of population in Latin America”. *N-IUSSP news magazine*, International Union for the Scientific Study of Population.
- 2018 Wilson, T., Brokensha, H., Rowe, F. and Simpson, L. “Insights from the evaluation of past local area population forecasts”. *Population Research and Policy Review*, 37(1), pp.137-155. doi.org/10.1007/s11113-017-9450-4
- 2018 Tao, S., Corcoran, J., Rowe, F. and Hickman, M. “To travel or not to travel: ‘Weather’ is the

- question. Modelling the effect of local weather conditions on bus ridership”. *Transportation research part C: emerging technologies*, 86, pp.147-167. doi.org/10.1016/j.trc.2017.11.005
- 2017 Rodríguez-Vignoli, J. and Rowe, F. “The Changing Impacts of Internal Migration on Residential Socio-Economic Segregation in the Greater Santiago”. In International Union for the Scientific Study of Population Conference, Cape Town. bit.ly/3hM8HgB
- 2017 Faggian, A., Corcoran, J. and Rowe, F. “Special issue on youth and graduate migration”. *The Annals of Regional Science*, 59(3), pp.571-575. doi.org/10.1007/s00168-017-0845-2
- 2017 Rowe, F., Corcoran, J. and Bell, M., 2017. “The returns to migration and human capital accumulation pathways: non-metropolitan youth in the school-to-work transition”. *The Annals of Regional Science*, 59(3), pp.819-845. doi.org/10.1007/s00168-016-0771-8
- 2017 Casado-Díaz, J.M., Martínez-Bernabéu, L. and Rowe, F. “An evolutionary approach to the delimitation of labour market areas: an empirical application for Chile”. *Spatial economic analysis*, 12(4), pp.379-403. doi.org/10.1080/17421772.2017.1273541
- 2017 Rowe, F., Casado-Díaz, J.M. and Martínez-Bernabéu, L. “Functional labour market areas for Chile”. *Region*, 4(3), pp.7-9. doi.org/10.18335/region.v4i3.199
- 2017 Rowe, F. “The CHilean Internal Migration (CHIM) database: Temporally consistent spatial data for the analysis of human mobility”. *Region*, 4(3), pp.1-6. doi.org/10.18335/region.v4i3.198
- 2017 Bernard, A., Rowe, F., Bell, M., Ueffing, P. and Charles-Edwards, E. “Comparing internal migration across the countries of Latin America: A multidimensional approach”. *PLoS One*, 12(3), p.e0173895. doi.org/10.1371/journal.pone.0173895
- 2017 Rodríguez-Vignoli, J. and Rowe, F. “¿Contribuye la migración interna a reducir la segregación residencial?: el caso de Santiago de Chile 1977-2002”. *Revista Latino Americana de Población*. livrepository.liverpool.ac.uk/3017221/1/178-382-1-PB.pdf
- 2016 Faggian, A., Corcoran, J. and Rowe, F. “Evaluating the effects of Australian policy changes on human capital: the role of a graduate visa scheme”. *Environment and Planning C: Government and Policy*, 34(1), pp.151-170. doi.org/10.1177/0263774X15614755
- 2015 Ueffing, P., Rowe, F. and Mulder, C.H., “Differences in attitudes towards immigration between Australia and Germany: The role of immigration policy”. *Comparative Population Studies*, 40(4). doi.org/10.12765/CPoS-2015-18
- 2014 Tang, A.Z.R., Rowe, F., Corcoran, J. and Sigler, T., “Where are the overseas graduates staying on? Overseas graduate migration and rural attachment in Australia.”. *Applied Geography*, 53, pp.66-76. doi.org/10.1016/j.apgeog.2014.06.004
- 2013 Rowe, F., Corcoran, J. and Faggian, A., “Mobility patterns of overseas human capital in Australia: the role of a ‘new’ graduate visa scheme and rural development policy.”. *Australian Geographer*, 44(2), pp.177-195. doi.org/10.1080/00049182.2013.789589
- 2011 Wilson, T. and Rowe, F. “The forecast accuracy of local government area population projections: a case study of Queensland.”. *Australasian Journal of Regional Studies*, 17(2), pp.204-243. https://search.informit.org/doi/10.3316/informit.204542367706271
- 2011 Rowe, F, Aroca, P 2008, “Eficiencia de la Migración Interregional en Chile para Ajustar el Mercado Laboral” *Revista AMERIKA*, 1(2), pp. 1-19.

## Book Chapters

- 2021 Rowe, F., Mahony, M., Graells-Garrido, E., Rango, M., and Sievers, N. "Using Twitter Data to Monitor Immigration Sentiment". International Organization for Migration. Practitioner Guide Book *OSF Preprints*. doi.org/10.31219/osf.io/sf7u4 Accepted.
- 2021 Green M., Pollock F.D., Rowe F. "New Forms of Data and New Forms of Opportunities to Monitor and Tackle a Pandemic". In: Andrews G.J., Crooks V.A., Pearce J.R., Messina J.P. (eds) *COVID-19 and Similar Futures. Global Perspectives on Health Geography*. Springer, Cham. doi.org/10.1007/978-3-030-70179-6\_56
- 2020 Rowe F., Bell M. "The Drivers of Long-Distance Commuting in Chile: The Role of the Spatial Distribution of Economic Activities". In: Poot J., Roskrug M. (eds) *Population Change and Impacts in Asia and the Pacific*. New Frontiers in Regional Science: Asian Perspectives, vol 30. Springer, Singapore. doi.org/10.1007/978-981-10-0230-4\_6
- 2020 Tang A.Z.R., Rowe F., Corcoran J., Faggian A. "The Changing Composition and Fortunes of Overseas Graduates in Australia: The Case of Chinese and Indian Graduates". In: Poot J., Roskrug M. (eds) *Population Change and Impacts in Asia and the Pacific*. New Frontiers in Regional Science: Asian Perspectives, vol 30. Springer, Singapore. doi.org/10.1007/978-981-10-0230-4\_9
- 2017 Tang, A.Z.R., Corcoran, J. and Rowe, F. "The role of migration on education–job mismatch: evidence from overseas graduates in Australia". In: Faggian, A., Corcoran, J. *Graduate Migration and Regional Development*. Edward Elgar Publishing. doi.org/10.4337/9781784712167
- 2016 Corcoran, J. and Rowe, F. "The impacts of policy changes on overseas human capital in Australia: the implementation of the 485 graduate visa scheme". In Lombard, J., Stern, E., Clarke, G. *Applied Spatial Modelling and Planning* (pp. 57-77). Routledge. doi.org/10.4324/9781315683621
- 2016 Tang, A.Z.R., Rowe, F., Corcoran, J. and Sigler, T., "Spatial mobility patterns of overseas graduates in Australia. In Demography for planning and policy: Australian case studies". In Wilson T., Charles-Edwards E., Bell M. *Demography for Planning and Policy: Australian Case Studies. Applied Demography Series* (pp. 57-77). Springer, Cham. doi.org/10.1007/978-3-319-22135-9\_10
- 2013 Rowe F. "The Geography and Determinants of Regional Human Capital in Eight Latin American and Caribbean Countries.". In Cuadrado-Roura J., Aroca P. *Regional Problems and Policies in Latin America. Advances in Spatial Science (The Regional Science Series)* Springer, Berlin, Heidelberg doi.org/10.1007/978-3-642-39674-8\_17

## Conference Proceedings

- 2017 Rodriguez, J. and Rowe, F., "The Changing Impacts of Internal Migration on Residential Socio-Economic Segregation in the Greater Santiago." *International Union for the Scientific Study of Population<sup>th</sup> International Population Conference*. Cape Town, South Africa. <https://iussp.confex.com/iussp/ipc2017/meetingapp.cgi/Paper/5219>

## Edited Articles and Reviews

- 2018 Rodríguez-Vignoli, J., Rowe, F. "Internal migration and spatial de-concentration of population in Latin America." *N-IUSSP news magazine, International Union for the Scientific Study of Population* <https://bit.ly/3xmEyJq>

- 2018 Corcoran, J., Pojani, D., Rowe, F., Zhou, J., Kim, J., Wei, M., Tao, S., Sigler, T. and Yan, L., “Too wet? Too cold? Too hot? This is how weather affects the trips we make” *The Conversation* <https://bit.ly/3lgPCFj>

### Reports and Other Publications

- 2021 Rowe, F., Mahony, M., Graells-Garrido, E., Rango, M., Sievers, N. “Policy Brief: Tracking Sentiment about Immigration at the Early Stages of the COVID-19 Pandemic”. International Organization for Migration.
- 2021 Darlington-Pollock, F., Arribas-Bel, D., Fleischman, M., Newsham, N., Rowe, F. “Policy Brief: What do ‘left behind’ areas look like over time? Developing place-based typologies of left behind areas”. Local Trust.
- 2021 Robinson, C., Rowe, F., Patias, N., Wray, I. “Socio-economic Inequality and Geographic Spread of the COVID-19 Pandemic in England”. *Working paper series of the UK2070 Commission, Series 4, 12.* [uk2070.org.uk/wp-content/uploads/2021/06/UK2070-PAPERS-SERIES-4.pdf](https://uk2070.org.uk/wp-content/uploads/2021/06/UK2070-PAPERS-SERIES-4.pdf)
- 2020 Robinson, C., Rowe, F. and Patias, N. “The Geography of the COVID-19 Pandemic in England”. Policy Brief Series: Responding to COVID-19 in the Liverpool City Region. *Heseltine Institute for Public Policy, Practice and Place.* University of Liverpool <https://bit.ly/3fhc1hQ>
- 2020 Rowe, F. Robinson, C., Patias, N. “Policy Brief: Changes in Neighbourhood Socio-economic Structures in Teesside, 1971-2011”. The UK2070 Commission.
- 2020 Rowe, F, Patias, N. and Arribas-Bel, D. “Neighbourhood Change and Trajectories of Inequality in Britain, 1971-2011”. Policy Brief. *The UK2070 Commission Paper Series.* [uk2070.org.uk/publications/](https://uk2070.org.uk/publications/)
- 2015 Rowe, F, Corcoran, J and Bell, M. “Changing post-school pathways and outcomes: Melbourne and regional students.” Department of Planning and Community Development. Spatial Analysis and Research Branch. State Government Victoria. Technical report 6. <https://bit.ly/2TMUDKD>
- 2014 Rowe, F, Corcoran, J and Bell, M. “Determinants of post-school choices of young people: The workforce, university or vocational studies?.” Department of Planning and Community Development. Spatial Analysis and Research Branch. State Government Victoria. Technical report 5. <https://bit.ly/3jc6lHa>
- 2014 Rowe, F, Corcoran, J and Bell, M. “Labour market outcomes and educational and occupational pathways of young movers starting off in regional Victoria” Department of Planning and Community Development. Spatial Analysis and Research Branch. State Government Victoria. Technical report 4. <https://bit.ly/3rISKem>
- 2014 Rowe, F, Corcoran, J and Bell, M. “Labour market outcomes and main educational and occupational pathways of young Victorians.” Department of Planning and Community Development. Spatial Analysis and Research Branch. State Government Victoria. Technical report 3. <https://bit.ly/3rPk9LF>
- 2014 Rowe, F, Corcoran, J and Bell, M. “Patterns and sequences of mobility.” Department of Planning and Community Development. Spatial Analysis and Research Branch. State Government Victoria. Technical report 2. <https://bit.ly/3lhXiEw>
- 2013 Rowe, F, Corcoran, J and Bell, M. “Analytical approach and data issues: report prepared for



State Victoria government” Department of Planning and Community Development. Spatial Analysis and Research Branch. State Government Victoria. Technical report 1. <https://bit.ly/3ihWihP>

- 2013 Rowe, F, “Spatial labour mobility in a transition economy: Migration and commuting in Chile.” PhD Thesis. Department of Geography, Planning and Environmental Management, University of Queensland, Australia. doi.org/10.14264/uql.2017.427

### Working papers

- 2021 Tang, A., Perales, F., Rowe, F. and Baxter, J., *From Bad to Worse: Examining the Deteriorating Labour Market Outcomes of International Graduates in Australia.*. Life Course Centre Working Paper, University of Queensland, Australia.
- 2021 Tang, A., Perales, F., Rowe, F. and Baxter, J., *The going gets rougher: exploring the labour market outcomes of international graduates in Australia.*. Life Course Centre Working Paper, University of Queensland, Australia.

### Manuscripts under Review

- 2021 Rowe, F., Robinson, C., Patias, N. “Sensing Global Changes in the Local Patterns of Energy Consumption in Cities During the Early Stages of the COVID-19 Pandemic.” Under review.
- 2021 Rowe, F., Mahony, M., Graells-Garrido, E., Rango, M. and Sievers, N., “Using Twitter to Track Immigration Sentiment During Early Stages of the COVID-19 Pandemic.” Under review. 10.31235/osf.io/pc3za
- 2021 Rowe, F., Mahony, M., Tao, S., “Machine Learning for Near-Real Time Bus Ridership Prediction During Extreme Weather.” Under review.
- 2021 Freire-Vidal, Y., Graells-Garrido, E., Rowe, F., “A Framework to Understand Attitudes Towards Immigration Through Twitter.” Under review.
- 2021 Aparicio-Castro, A., Wiśniowski, A., Rowe, F. “A Bayesian approach to estimate annual bilateral migration flows for South America using census data.” Under review.
- 2021 Thomas, J., Rowe, F., Williamson, P., Lin, E., “The Effect of Parental Leave Policies on Increasing Fertility: A Systematic Review.” Under review.
- 2021 Thomas, J., Rowe, F., Lin, E., “Declining Fertility in Taiwan: The Long-Term Deterring Impact of Housework Imbalance.” Under review.
- 2021 Arribas-Bel, D., Rowe, F., Chen, M., Comber, S. ““An image library” The potential of imagery in Regional Science” Under review.

### INVITED TALKS

- 2020 “Machine learning in the Social Sciences.” Methods Northwest. North West Social Science Doctoral Training Partnership. 12 Nov. Online. United Kingdom.
- 2020 “Using Machine Learning and Twitter To Profile Attitudes Towards Immigration.” Economics Seminar ICESI, 30 July, Universidad Icesi. Cali, Colombia.
- 2020 “Using Machine Learning and Twitter Data to Profile Attitudes Towards Immigration.”, Max Planck Institute for Demographic Research (MPIDR), 10 March, Rostock, Germany.

- 2019 “Measuring Urban Forest Using Street-Level Imagery and Deep Learning”. Building a future for the urban analytics blueprint. The Alan Turing Institute. 17 Oct. Bristol. United Kingdom.
- 2019 “International Migration: Busting Myths!.” Roxby Lecture. University of Liverpool. 16 May. Liverpool. United Kingdom.
- 2019 “Migration, Cities and Big Data.” Population and Development Division, United Nations, 15 April, New York, United States.
- 2019 “Migration, Urbanisation and Big Data.” University of Toronto, 4 April, Toronto, Canada.
- 2018 “The Impact of Internal Migration on Population Redistribution in Europe.” University of Manchester Seminar, 11 May, Manchester, United Kingdom.
- 2016 “Socioeconomic residential segregation, intrametropolitan spatial inequalities and internal migration in Latin America large cities.” Latin American Demographic Centre (CELADE), Economic Commission for Latin America and the Caribbean (CELADE), United Nations (UN), 30 May, Santiago, Chile.
- 2016 “The returns to migration and human capital accumulation pathways: Non-metropolitan youth in the school-to-work transition.” National Institute of Demographic and Economic Analysis, The University of Waikato, 17 May, 2016, Hamilton, New Zealand.
- 2015 “Careers and migration pathways and outcomes of young people.” Research Roundtable, educational, employment and migration pathways and outcomes of young people. Department of Education and Training, 15 October, 2015, Brisbane, Australia.
- 2015 “Internal migration and development in Latin America.” Latin American Demographic Centre (CELADE), Economic Commission for Latin America and the Caribbean (CELADE), United Nations (UN), 14-15 May, Santiago, Chile.
- 2014 “The effects of economic liberalisation on inter-regional labour migration in a transition economy, Chile.” Tinbergen Workshop, 19-20 May, Amsterdam, The Netherlands.

### **Campus Talks**

- 2020 “Using Twitter to Track Immigration Sentiment During Early Stages of the COVID-19 Pandemic.” University of Liverpool. 4 Jun. Liverpool. United Kingdom.
- 2018 “Regional Science.” University of Liverpool. 21 Oct. Liverpool. United Kingdom..
- 2018 “Totes amaze-balls data opportunity.” University of Liverpool. 12 Feb. Liverpool. United Kingdom.
- 2017 “Why has the distribution of BMI widened? Evidence for England, 2004-2013” University of Liverpool. 22 Mar. Liverpool. United Kingdom.

## **CONFERENCE ACTIVITY**

### **Plenary Addresses**

- 2017 “The Rise of International Graduates: Contributing to Regional Australia.” International Education Association of Australia 8th Mid-Winter Researchers’ Seminar, 4 July, Brisbane, Australia.
- 2015 “Existing Chilean-Australian relationships: The role of human capital mobility and research/policy implication.” Disseminating Knowledge to reinforce Chilean? Australian Networks, 4-5 Sep, Melbourne, Australia.

- 2015 “The role of human capital mobility in enhancing science.” Strengthening ties between Chile and Australia, First Meeting of Chilean Scientist in Brisbane Australian Networks, 31 July, Brisbane, Australia. Keynote presentation.

### Sessions Organised

- 2021 “Special Session: Human mobility, Migration and Stay-in-Place Patterns and Changes During Pandemic Times.” European Regional Science Association Conference. 24-27 Aug. Bolzano, Italy. Co-organisers: Alessandra Faggian and Rachel Franklin.
- 2018 “Special Session: Doing regional science with new sources of big data.” European Regional Science Association Conference. 28-31 Aug. Cork, Ireland.
- 2018 “Workshop Session: The Potential of Satellite Imagery for Studying Human Activity.” Workshop. 14-15 Jun. Liverpool, United Kingdom.

### Symposium & Workshops

- 2020 “AI and data science in the age of COVID-19 Workshops”. The Alan Turing Institute. Online, United Kingdom. Nov 25-Dec 9.  
<https://www.turing.ac.uk/events/ai-and-data-science-age-covid-19>
- 2019 “Second UK2070 Commission National Symposium”. Durham, United Kingdom. Nov 18.
- 2019 “First UK2070 Commission National Symposium”, hosted by Leeds City Council. Leeds, United Kingdom. Jun 13.
- 2014 “Spatial Demography Symposium”: Spatial mobility patterns of overseas graduates in Australia. Hosted by the University of Queensland, Brisbane, Australia. Jul 2.

## IMPACT & KNOWLEDGE EXCHANGE ACTIVITIES

### Recent

- 2021 “An Equal Recovery Inquiry: Geographic Data Science Lab (GDSDL) submission”. Submission of evidence to the United Kingdom Parliament to inform discussions at the Treasury Committee on An Inquiry on Equal Recovery in the context of COVID-19. Online, United Kingdom. Jun 27. Submission reference: *UXW268417*  
<https://committees.parliament.uk/work/1218/an-equal-recovery/>
- 2021 “Policy Brief: Tracking Sentiment about Immigration at the Early Stages of the COVID-19 Pandemic”. Submission to inform policy discussions and recommendations at the International Organization for Migration, Global Migration Data Analysis Centre and the German Ministry of Interior. Berlin, Germany. Approved: Jul 23.  
<https://gmdac.iom.int/the-team>
- 2021 “Experts Database: I was included in the United Nations Network Migration Database”. Online, United States. Jun 20.  
<https://migrationnetwork.un.org/hub/experts-database>
- 2021 “Policy Brief: What do ‘left behind’ areas look like over time? Developing place-based typologies of left behind areas”. Submission to inform policy discussions and recommendations at the All-Party Parliamentary Group for ‘Left Behind’ Neighbourhoods. London, United Kingdom. Approved: Mar 31.  
<https://www.appg-leftbehindneighbourhoods.org.uk>

- 2021 “Policy Brief: Socio-economic Inequality and Geographic Spread of the COVID-19 Pandemic in England”. Submission to inform policy discussions and recommendations at the UK2070 Commission. United Kingdom. <http://uk2070.org.uk>
- 2020 “Policy Brief: The Geography of the COVID-19 Pandemic in England. Responding to COVID-19 in the Liverpool City Region”. Submission to inform policy discussions and recommendations at the Liverpool City Region. Liverpool, United Kingdom. <https://www.liverpool.ac.uk/heseltine-institute/covid-19policybriefs/>
- 2020 “AI and data science in the age of COVID-19 Workshops”. Contribution of evidence to develop a report documenting the lessons during the COVID-19 pandemic and strategic priorities going ahead. Online. United Kingdom. <https://www.turing.ac.uk/events/ai-and-data-science-age-covid-19>
- 2020 “Policy Brief: Changes in Neighbourhood Socio-economic Structures in Teesside, 1971-2011”. Submission as part of the Teesside Task Force, part of the work programme of the UK2070 Commission: An Inquiry into a New Economic Vision for the Teesside Economic Region, to inform and develop regional policy recommendations. Online. United Kingdom. <http://uk2070.org.uk/2020/10/28/uk2070-commission-launches-teesside-taskforce/>
- 2020 “Data Innovation Resource: Estimating Global Migration Flows by Using Machine Learning”. Project to showcase how machine learning techniques can be used to produce data and inform policy. Project featured on the Data Innovation Directory of the International Organization for Migration. Berlin, Germany. <https://www.migrationdataportal.org/data-innovation/global-migration-traditional-innovative-data-machine-learning>
- 2020 “Data Innovation Resource: Using Twitter to Understand Attitudes Towards Immigration”. Project to showcase how novel data can be used to inform policy. Project featured on the Data Innovation Directory of the International Organization for Migration. Berlin, Germany. <https://www.migrationdataportal.org/data-innovation/understanding-public-attitudes-towards-migrants-chile-using-twitter-data>

## **TEACHING**

### **Postgraduate**

- 2022– R for Population Science. <https://fcorowe.github.io/ps/>
- 2020– Spatial Modelling for Data Scientists. <https://gdsl-ul.github.io/san>
- 2016– Geographic Data Science Dissertation.
- 2016–2017 Population, Health and Mortality.
- 2016–2018 Theorising Human Geography.

### **Undergraduate**

#### **University of Liverpool, United Kingdom**

- 2019–2020 Exploring the Social World.
- 2016– Population and Societies.
- 2021– Virtual Field Class Year 3.

- 2016– Geography undergraduate dissertation supervisions.
- 2016– Geography Year 1 and 2 Tutorials.
- 2018–2019 Toronto Field Class Year 3.
- 2017–2018 Singapore Field Class Year 3.
- 2016–2019 Statistics for Social Scientists.
- 2016–2017 Human Geography through Merseyside.
- 2016–2017 Glasgow Field Class Year 2.

### **University of Queensland, Australia**

- 2016 Global Population Issues.
- 2015 Human Mobility and Migration.
- 2014 Human Settlements.

### **Universidad Catolica del Norte, Chile**

- 2008 Statistics.
- 2008 Macro-economics.

### **Universidad Santo Tomas, Chile**

- 2007 Algebra
- 2007 Macroeconomics

## **SUPERVISION**

### **Current PhD supervision**

- 2019– Niall Newshaw. “Understanding the extent, causes, consequences and future of population decline in Europe”. The University of Liverpool.
- 2019– Michael Mahony, “Understanding and Predicting the Long-term Labour Market and Migration Trajectories of Immigrants and Their Children in the United Kingdom”. The University of Liverpool.
- 2018– Danial Owen, “Urban sensors: exploiting the opportunities”. The University of Liverpool.
- 2018– Melanie Green, “Automating detailed urban data extraction from high resolution aerial imagery”. The University of Liverpool.
- 2018– Ya-Weng Tseng, “Evaluating Interdisciplinary Learning”. National Tsing-Hua University - The University of Liverpool.
- 2018– Andrea Apacio. “Modelling and forecasting the spatial and temporal patterns of bilateral international migration flows”. The University of Manchester.
- 2017– Nikos Patias. “Scalable Analytical Framework for Spatio-temporal Data Analysis”. The University of Liverpool.

2017– Franco Barrera. “Technological change, labor markets and educational system”. Universidad de Iberoamerica.

### **Complete PhD supervision**

2017-2021 Jac Thomas. “Explaining the determinants of fertility decline in Taiwan”. National Tsing-Hua University - The University of Liverpool.

2018-2021 Li-Dan Shang. “How do the foreign spouses impact the quality of learning of the next generation”. National Tsing-Hua University - The University of Liverpool.

2014-2020 Angelina Zhi Rou Tang, “Overseas graduates in Australia: Characteristics, dynamics and change”, The University of Queensland.

2016-2019 Leo Singer. “Life-course patterns of multimorbidity in its social contexts”. The University of Liverpool.

2016-2018 Alina Pelikh. “Transition to adulthood in Britain: The analysis of life trajectories of young adults”. The University of Liverpool.

2013-2015 Wilma Terblance, “Population Estimates and Projections for Australia’s Very Elderly Population at State and National Level”, The University of Queensland.

### **MSc supervision**

2020 Sultan Alotaibi, “COVID-19 Confirmed Cases and Deaths in United Kingdom and Association with Socio-Demographic Profile: A Spatial and Temporal Analysis”, The University of Liverpool.

2019 Michael Mahony, “Using satellite imagery and machine learning to estimate access to improved water sources: a case study of Malawi”, The University of Liverpool.

2018 Emma Branagan, “The Effects of Social Media on Trading Outcomes: A Company Case Study”, The University of Liverpool.

2017 Niall Newsham, “A Projection of the Demographic Impact of Syrian Migration in Germany”. The University of Liverpool. *Dissertation awarded the Bob Woods Postgraduate Dissertation Prize in population studies and reworked into a collaborative paper to be published in the Journal of Geographical Systems.*

### **Honours**

2013 Angelina Zhi Rou Tang, “Spatial mobility patterns of overseas graduates in Australia”, The University of Queensland.

2011 Rachel Ong, “Human capital and migration of international graduates in Australia: Investigating the impact of the graduate visa”, The University of Queensland.

### **SERVICE**

#### **Journal reviews**

Advances in Life Course Research • Applied Geography • Applied Spatial Analysis and Policy • Australian Population Studies • Cities • Comparative Population Studies • Demographic Research • Economic Geography • Environment and Planning C • Forests • Geographical Analysis • GeoJournal • Journal of Geographical Systems • The Australian Economic Review • The Australian Journal of

Agricultural and Resource Economics • The Australian Economic Review • The Journal of Annals of Regional Science • Journal of Ethnic and Migration Studies • Journal of Regional Science • Journal of Population Research • Journal of Urban Technology • Papers in Regional Studies • PLOS One • Population Research and Policy Review • Population, Space and Place • Regional Studies • Socio-Economic Planning Sciences • The International Journal of Human Resource Management • Transportation Research Part D • UCL Open Environment

### **Grant review**

Australian Research Council (ARC) • Chilean Intelligence National Agency • Chilean National Commission for Scientific and Technological Research (CONICYT).

### **Book review**

Routledge • Sage.

### **Professional Membership**

2017– Member, British Society for Population Studies.

2016– Member, Regional Studies Association.

2014– Member, Regional Science Association International.

2013– Member, Chilean Society of Regional Science.

### **Scientific Software**

2021 Patias, N. and Rowe, F., extRatum, R package:  
<https://CRAN.R-project.org/package=extRatum>

2019 Rowe, F., Patias, N. and Rodríguez-Vignoli, J., Compositional Impact of Migration (CIM), R package: <https://CRAN.R-project.org/package=CIM>

### **Open data products**

2021 Neighbourhood trajectories in Great Britain 1971-2011: <https://data.cdrc.ac.uk/dataset/neighbourhood-trajectories-great-britain-1971-2011>

2017 The Chilean Internal Migration (CHIM) database:  
<https://s3.amazonaws.com/geoda/data/CHIM>

2017 Functional Labour Market Areas:  
<https://geodacenter.github.io/data-and-lab//FLMA/>

Updated August 2021