Spotlight on the region analytical contributions on regional development

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Abstract
Regional science has, in its great history since the 1950s, made a decisive contribution to a better scientific understanding of spatial development issues and dynamics and to a more effective implementation of knowledge-based regional policy in many countries of the world, in both developed and developing nations on our planet. This special issue of the annals of regional science, titled “Spotlight on the Region”, celebrates the scholarly importance and impact of the late Roger Stough on regional science. The issue is comprised of fourteen self-standing on regional and urban development and highlights the critical importance of regional and urban dimensions in sustainable development. They confirm once more the seminal significance of the contributions of one of the great giants in regional science, Roger Stough.

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1 Actionable regions

Regions are the real-world action places of people. They provide geographical seedbed conditions for economic, social, cultural and technological opportunities and outcomes. Clearly, regions are instrumental in creating economic welfare and human well-being. But it ought to be recognised that the socio-economic activities of people are not just a passive derivative from region-specific conditions; there is no geographical determinism. On the contrary, regions provide an active opportunity space for a broad portfolio of choice possibilities and realisations of people and business.

In the spirit of the endogenous regional growth theory literature, we have come to appreciate that people can to some extent influence their ‘socio-economic fortune’ by influencing the base conditions of regions in an active way, for instance, through creative knowledge, new technology, entrepreneurship, environmental attitudes, or social and cultural capital. The more people know and care about their regions and the more they employ the indigenous territorial capital and resources of a region, the
higher their relative spatial-economic benefits in an open spatial system of competitive regions. People and regions are mutually connected in many ways.

Regional science has, in its great history since the 1950s, made a decisive contribution to a better scientific understanding of spatial development issues and dynamics and to a more effective implementation of knowledge-based regional policy in many countries of the world, in both developed and developing nations on our planet. Thus, the triangle regions-people-knowledge is of critical importance for creating sustainable development at different scale levels of the space-economy. The various interlinkages in this triangle prompt a series of scientific challenges for regional science, which may be exemplified as follows:

- **Regions4People**: study of spatial development and innovation conditions and consequences.
- **People4Regions**: study of place-based entrepreneurship, leadership and quality of life in regional and urban systems.
- **People4People**: study of socio-economic spatial networks, community well-being and regional growth opportunities.
- **Regions4Regions**: study of spatial policy, accessibility or transportation and of regional development institutions.
- **Knowledge4(People&Regions)**: evidence-based study of prerequisites and implications of advanced regional science theories and methods for regional/urban growth and human well-being.

The above triangular arena of regional science scopes and foci display a wide coverage. It is noteworthy that the late Roger Stough, in his extremely productive and fruitful academic life, has addressed so many of the above-mentioned research challenges. There is hardly any field in the above triangular force field, which was not covered by his gigantic intellectual potential. Roger Stough was a comprehensive and original thinker. He had also the surprising talent to build bridges and bonds with many—senior and junior—colleagues all over the world, and he was always so generous in sharing his insights and ideas with others.

This special issue of The Annals of Regional Science (ARS) will celebrate the scholarly importance and impact of the late Roger Stough on regional science. Roger was not only an intellectual giant and a pioneering regional science scholar, but also a great human being with an open heart for colleagues and young scientists. His scientific work covers a broad spectrum of innovative contributions to various regional science fields. The present special issue of ARS contains a series of original research works in the spirit of Roger Stough’s seminal contributions. They all show a great relevance and offer new perspectives and are motivated by Roger Stough’s scholarship.

The scholarly work of Roger Stough can mainly be characterised by five interconnected research themes:

- **theory and application of regional development**, with a focus on evidence-based research on determinants and system-wide effects of spatial dynamics.
- **welfare, institutions and leadership** in the framework of regional, industrial and urban policy analysis.
• technological innovation and digital technology as drivers of regional economic progress in various parts of the world.
• comparative studies on regional or urban growth, including the analysis of resilience capacity in the spatial-economic fabric.
• cross-sectional and multidisciplinary interest in regional development and spatial dynamics in China and Asia Pacific.

The various contributions in this special issue of ARS 14, in total, are summarized and categorised according to the above classification in the next section.

2 Synthesis

In an introductory overview of Roger Stough’s prolific contributions to regional science, Rob Stimson, Kingsley Haynes and Patricio Aroca highlight the scholarly and human profile of this great scientist. The subsequent contributions in this special issue will now concisely be described following the subdivision of Roger Stough’s interest as described above.

In the first part devoted to theory and application of regional development, two important contributions can be found. First, Roberta Capello and Silvia Cerisola analyse the interdependence between productivity growth and regional inequality, with a particular view to the transformation stage of Central and Eastern European (CEE) countries; the authors make a place for supporting modern and technologically advanced traditional sectors. Next, Gordon Mulligan models in his paper the complexity of employment vulnerability in US metropolitan areas; he estimates their volatility in unemployment rates relative to the national rate and concludes that regional specialisation can create overall employment vulnerability.

The subsequent part of the special issue on welfare, institutions and leadership contains also two articles. Arthur Grimes, Shaan Badenhorst, David Maré, Jacques Poot and Isabelle Sin focus on the regional attraction and retention conditions of highly educated young people; they employ quality of life and quality of business indicators and conclude that graduates are attracted to locate in places with high-quality production amenities, a finding that offers also an anchor point for local policy. A second contribution in this part of the special issue is provided by Ye Fan, Ming Fang, Xin Zhang and Yongda Yu, who analyse the relationship between economic growth and public health, using data on social vulnerability, urbanisation and COVID-19 in the USA; the authors find that economic growth is related to lower public health vulnerability and that urbanisation has limited public health benefits.

The next part of this special issue is devoted to technological innovation and digital technology. It opens with an article by Zoltan Acs, on the significance of the digital platform economy for regions from an evolutionary perspective; the author finds that the simultaneous management of regional entrepreneurial economy systems and platform-based ecosystems are a sine qua non. Next, Sofia Wixe, Pia Nilsson, Lucia Naldi and Hans Westlund address the role of collaboration and external knowledge in innovation strategies of small (food) firms; they conclude that the local context,
open access to intra- and extra-regional knowledge sources, and innovation choices of firms are a critical success factor.

Regional and urban systems are different all over the world, but share also many common features, which warrants comparative studies based on systematic logic. A first article in this class, written by Ayoung Kim, Jaewon Lim and Aaron Colletta looks into the relative resilience capacity of US states against the backdrop of the COVID-19 pandemic; they pay particular attention to regional economic structures which impact on vulnerability to unexpected recessionary shocks. Next, Daniela Constantin, Zizi Goschin and Cristina Serbanica provide a comparative study on services of general interest (in particular, supply and usage of piped water), based on a spatial panel approach to Romania; they conclude that at county level the availability and accessibility to such general public services show an enormous variability, not only between regions, but also between urban and rural environments. Another study dealing with general well-being of people is written by Abu Bakkar Siddique, Kingsley Haynes, Rajendra Kulkarni and Meng-hao Li and explores the relationship between regional poverty and the COVID-19 pandemic; the authors argue that spatial mobility and interpersonal interaction tend to increase death tolls, especially due to limited access to health services by minority groups. And finally, Meryem Qacami, Abdellatif Khattabi, Said Lahssini, Nabil Rifal and Modeste Meliho present a study on distinct sustainable landscapes in various watersheds in Morocco; human pressures appear to lead to an intensification of land use and to expansion of buildings in relation to population growth and urbanisation.

The final class of contributions in this special issue of ARS deals with Asian studies, one of Stough's favourite fields of interest. The first paper in this set, written by Karima Kourtit, Peter Nijkamp and Soushi Suzuki, deals with the performance management of Asian ‘Stellar Cities’, using a DEA cascade system; the authors offer also a capability interpretation of urban agents for reaching a higher position on the socio-economic performance ladder of Asian cities. A second contribution in this set of Asian studies is written by Fenjie Long, Longfei Zheng and Haifeng Qian, who study entrepreneurship in China's peripheral regions; they provide evidence on the positive impacts of macro-economic conditions, industry specialisation, county size and patent knowledge on entrepreneurship. A final paper dealing with Asian issues, written by Jingjing Liu, Jamie Chen, Peter Nijkamp and James Petrick, addresses the existence of threshold effects in tourism density on liveability in Chinese cities; this study finds that tourism development has a critical impact on urban quality of life (both positively and negatively), with a non-monotone moderating effect of tourism density.

The above collection of 14 papers centred on the theme of ‘Spotlight on the Region’ are clearly self-standing studies on regional and urban development. Despite their variety in approach and geographical scope, they all highlight the critical importance of regional and urban dimensions in sustainable development. They confirm once more the seminal significance of the contributions of one of the great giants in regional science, Roger Stough.

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