

Greek research capacity and economic hardships: a social network ripple effect?

The effects of the ongoing economic crisis on the Greek population have spurred a lively debate¹ with calls for improved monitoring of vulnerability and prevention of poverty-related health threats at the community level. However, what happens if the necessary research capacity is seriously undermined by successive cuts in public spending, intensifying bureaucracy, and permeating uncertainty over the country's bailout?

Although Greek scientists still demonstrate good rates of research productivity and are highly esteemed, it is debatable if this will continue at the same pace. Despite the more optimistic point of view expressed by Malone,² it is no longer 'business as usual' for most Greek scientists. Their ability not only to cope with difficult work conditions but also to thrive in fund-deprived institutions appears to be seriously challenged. Many capable researchers are either losing their funding or suffering major paycheck cuts, and are forced to leave for a better future. Although brain drain is not a unique Greek problem, it is alarming to observe that the most competent and productive workforce members are becoming part of Greece's most sought-after export products.^{3,4}

Academic, research, and clinical settings are counting the losses of established, mature professionals. Faculty members close to retirement are not expected to be replaced due to lack of funding for new professorships. At the same time, there is no 'new blood' entering the system, as a result of the recruitment freeze throughout the public sector. For newly emerging academic fields, such as community-oriented primary care, the likelihood of them remaining stagnant in the upcoming years runs high, despite diligent efforts to further enhance empirical research.⁵ Even though under the new educational reform act, passed in 2011, privately-funded

academic positions along with flexible temporary contracts between researchers and institutions are allowed and even encouraged, there is still no sign of change. Consequently, a new breed of scientists is faced with the challenge of conducting self-funded research in response to shrinking resources and without the benefits of an institutional infrastructure support.

According to the theory of social network, interventions delivered within a network, whether positive or negative, are magnified.⁶ Thus interventions targeting an individual may have unintended effects on others to whom the person is connected. The benefits, as well as the costs, ripple through the network, creating additional benefits or costs for others, both near and remote.

Viewed from that perspective, bold action is urgently needed to safeguard the country's precious research capital from a snowballing network effect. Reversing the immigration wave of talented scientists should become a strategic priority, in order to maintain and strengthen the country's competitiveness and extroversion. To this end, the following actions are suggested:

1. facilitate a more sustainable research funding framework to allow for more flexibility and transparency in recruiting new resources;
2. reconsider the entire undergraduate education model (that is, the introduction of the interdisciplinary approach, encouraging innovation by pairing students and teachers of different backgrounds);
3. implement evidence-driven initiatives within state universities to improve research, clinical, and teaching capacity; and
4. develop a compelling institutional vision and clear values in response to newly-emerging societal needs.

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Securing the support of a critical mass of the right people to materialise the above recommendations is critical to overcoming hardships and restore the nation's wellbeing. At the same time, we need to become aware of the fact that people and events are interdependent and that any simple act or omission can transcend the individual in a network ripple effect. Acknowledging this could offer a new perspective, not only for Greek scientists and policy makers but also for the international scientific community.

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"Viewed from a social network theory perspective, bold action is urgently needed to safeguard the country's precious research capital from a snowballing network effect."