

The report is well conceived, well researched and well written. It is a must read for all policymakers, students of science and technology policy, heads of research councils in India and the members of the Parliamentary Standing Committee on Science and Technology. Its main recommendation, viz. establishing a research programme on 'science of science and innovation policy' is worth implementing.

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Is American Science in Decline? Yu Xie and Alexandra A. Killewald. Harvard University Press, Cambridge, MA, USA. 2012. x + 230 pp. Price: US\$ 45.00/£33.95.

Is American science in decline? The direct answer to this question is not found in the book under review. Indeed,

from his own personal research, some of which have been reported in these pages (*Curr. Sci.*, 2008, **94**, 1113; 2010, **98**, 1160–1161; 2012, **103**, 351–352), it is clear to this reviewer that from 1995 to 2009, the United States' share of the world's science and engineering (S&E) articles has diminished from 34.24% to 26.46% (data based on the 2012 report of Science and Engineering Indicators).

What the book does answer is the question, 'Is America the pre-eminent S&E research power in the world?' Indeed it is, and will remain so for quite a long while, if one does not compare it with the European Union taken as a single monolithic entity. With only 5% of the world's population, the US accounts for 35%, 49% and 63% respectively, of the world's scientific output, citations received and highly cited publications. But this position of dominance is slowly being eroded. It is holding on only because it devotes huge resources to research and development (about 40% of the total global research and development spending) has the finest higher education infrastructure in the world (85% of the world's top 20 universities and 54% of the world's top 100 universities) and last but not the least, encourages the steady increase in the number of immigrant scientists. Immigrant scientists from India accounted for 16% of all US scientists and engineers and China another 11%. Taken together, this diaspora from the notional sub-continent called 'Chindia' (a portmanteau word attributed to the politician Jairam Ramesh), is keeping the S&E machinery of the US ticking healthily. Interestingly, a simple back-of-the-envelope calculation shows that there are more S&E professionals of Indian origin working in the US (approximately 240,000) than those who remain at home (maybe 150,000). There is anecdotal evi-

dence that Chindians in the US work much harder than those at home and presumably much harder than their own American-born counterparts. This leads to the speculative but plausible projection that Chindians account for nearly half or maybe more of the S&E research output of the US.

Some of the important issues that Xie and Killewald address apply equally well to emerging scientific and economic powers like China and India. Scientists' earnings are stagnating. Academic science is threatened because of poorer growth prospects and the higher risks involved in finding and retaining tenure-track positions. Science, like sports, is a highly competitive social activity, driven by personal ambition and national pride and imperatives. With increasing competition in a globalized world, one has to work harder to keep one's share of the S&E pie. The US is just about able to hold on to its position as the global S&E super-power.

The book ends on the following note:

'Loss of dominance does not mean decline. All current signs indicate that American science can still remain a leader of world science for many years to come.'

One cannot find fault with the latter statement. However, one can quibble over the preceding sentence – what is decline, if not the loss of dominance?

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