# The Economics of Innovation Policy Volume I

Foundations of Innovation Policy

Edited by Albert N. Link

Professor of Economics University of North Carolina at Greensboro, USA

THE INTERNATIONAL LIBRARY OF CRITICAL WRITINGS IN ECONOMICS ILL

An Elgar Reference Collection CCheltenham, UK • Northampton, MA, USA

## Contents

Acknowled Introductio		<i>its</i> bert N. Link	vii ix
PART I	<b>GOV</b> 1.	<b>ERNMENT'S ROLE IN INNOVATION</b> Paul M. Romer (1993), 'Implementing a National Technology Strategy with Self-Organizing Industry Investment Boards', <i>Brookings Papers on Economic Activity: Microeconomics</i> , 2, 345-	
		99	3
	2.	Partha Dasgupta and Paul A. David (1994), 'Toward a New Economics of Science', <i>Research Policy</i> , 23,487-521	58
	3.	Stephen Martin and John T. Scott (2000), 'The Nature of Innovation Market Failure and the Design of Public Support for Private Innovation', <i>Research Policy</i> , 29, 437-47	93
	4.	Gregory Tassey (2005), 'Underinvestment in Public Good Technologies', <i>Journal of Technology Transfer</i> , <b>30</b> (1/2), 89-113	104
PART II	THE	PATENT SYSTEM	
	5.	Rebecca S. Eisenberg (1989), 'Patents and the Progress of Science: Exclusive Rights and Experimental Use', <i>University of Chicago</i>	
		<i>Law Review</i> , 56, 1017-86	131
	6.	Richard Gilbert and Carl Shapiro (1990), 'Optimal Patent Length and Breadth', <i>RAND Journal of Economics</i> , 21 (1), Spring, 106-12	201
	7.	Janusz A. Ordover (1991), 'A Patent System for Both Diffusion and Exclusion', <i>Journal of Economic Perspectives</i> , 5 (1), Winter, 43-60	
	8.	Adam B. Jaffe (2000), 'The U.S. Patent System in Transition: Policy Innovation and the Innovation Process', <i>Research Policy</i> , 29,	
		531-57	226
	9.	Wesley M. Cohen (2005), 'Patents and Appropriation: Concerns and Evidence', <i>Journal of Technology Transfer</i> , 30 (1/2), 57-71	253
PART III	DIR	ECT FUNDING OF INNOVATION	
	10.	Gregory Tassey (1996), 'Choosing Government R&D Policies: Tax Incentives vs. Direct Funding', <i>Review of Industrial Organization</i> ,	
	11.	11 (5), 579-600 John T. Scott (1998), 'Financing and Leveraging Public/Private	271
		Partnerships: The Hurdle-Lowering Auction', <i>STl Review</i> , 23, 67-84	293

	12.	Josh Lerner (1999), 'The Government as Venture Capitalist: The	
		Long-Run Impact of the SBIR Program', <i>Journal of Business</i> , • 72 (3), 285-318	311
	13.	Scott J. Wallsten (2000), 'The Effects of Government-Industry	011
		R&D Programs on Private R&D: The Case of the Small Business	
		Innovation Research Program', RAND Journal of Economics,	
		31 (1), Spring, 82-100	345
	14.	David Audretsch, Albert N. Link and John T. Scott (2002), 'Public/	
		Private Technology Partnerships: Evaluating SBIR-Supported	264
		Research', Research Policy, 31,145-58	364
PART IV	FIS	CAL POLICIES TO PROMOTE INNOVATION	
	15.	Barry Bozeman and Albert N. Link (1984), 'Tax Incentives for	
		R&D: A Critical Evaluation', Research Policy, 13, 21-31	381
	16.	C.W. Swenson (1992), 'Some Tests of the Incentive Effects of the	
		Research and Experimentation Tax Credit', Journal of Public	
		<i>Economics</i> , 49, 203-18	392
	17.	Bronwyn H. Hall (1993), 'R&D Tax Policy during the 1980s:	
		Success or Failure?', <i>Tax Policy and the Economy</i> , 7, 1-35	408
	18.	Rachel Griffith, Daniel Sandier and John Van Reenen (1995), 'Tax	
		Incentives for R&D', <i>Fiscal Studies</i> , 16 (2), 21-44	443
	19.	John T. Scott (1995), 'The Damoclean Tax and Innovation',	
		Journal of Evolutionary Economics, 5, 71-89	467
<b>N</b> 7 <b>T T</b>			407

Name Index

# The Economics of Innovation Policy Volume II

Innovation Policies and Social Impact

Edited by

### Albert N. Link

Professor of Economics University of North Carolina at Greensboro, USA

THE INTERNATIONAL LIBRARY OF CRITICAL WRITINGS IN ECONOMICS 2 2 2-

An Elgar Reference Collection CCheltenham, UK • Northampton, MA, USA

### Contents

Acknowled An introdi	0	ats o both volumes by the editor appears in Volume $oldsymbol{I}$	ix
PART I	PUBL 1.	IC RESEARCH AND DEVELOPMENT Richard R. Nelson (1983), 'Government Support of Technical	
	2.	Progress: Lessons from History', <i>Journal of Policy Analysis and</i> <i>Management, 2</i> (4), 499-514 David M. Levy and Nestor E. Terleckyj (1983), 'Effects of Government R&D on Private R&D Investment and Productivity: A Macroeconomic Analysis', <i>Bell Journal of Economics,</i> 14 (2),	3
	3.	Autumn, 551-61 Frank R. Lichtenberg (1984), 'The Relationship Between Federal	19
	4.	Contract R&D and Company R&D', <i>American Economic Review</i> , <i>Papers and Proceedings</i> , 74 (2), May, 73-8 Dennis Patrick Leyden and Albert N. Link (1991), 'Why are	30
	~	Governmental R&D and Private R&D Complements?', App/ied <i>Economics</i> , 23,1673-81	36
	5.	Maryann P. Feldman and Maryellen R. Kelley (2003), 'Leveraging Research and Development: Assessing the Impact of the U.S. Advanced Technology Program', <i>Small Business Economics</i> , 20 (2), March, 153-65	45
PART II	RES	SEARCH COOPERATION TO PROMOTE INNOVATION	
	6. 7.	Eric von Hippel (1987), 'Cooperation between Rivals: Informal Know-How Trading', <i>Research Policy</i> , 16 (6), 291-302 Dennis Patrick Leyden and Albert N. Link (1999), 'Federal	61
	8.	Laboratories as Research Partners', <i>International Journal of Industrial Organization</i> , 17, 575-92 Bruce S. Tether (2002), 'Who Co-operates for Innovation and Why:	73
	o. 9.	An Empirical Analysis', <i>Research Policy</i> , 31, 947-67 Donald S. Siegel (2003), 'Data Requirements for Assessing the Private and Social Returns to Strategic Research Partnerships: Analysis and Recommendations', <i>Technology Analysis and</i>	91
		Strategic Management, 15 (2), 207-25	112
PART III	<b>STA</b> 10.	<b>ANDARDS AS TECHNOLOGY INFRASTRUCTURE</b> Joseph Farrell and Garth Saloner (1986), 'Installed Base and Compatibility: Innovation, Product Preannouncements and	
		Predation', <i>American Economic Review</i> , 76 (5), December, 940–55	133

#### The Economics of Innovation Policy II

	<ol> <li>Paul A. David and Shane Greenstein (1990), 'The Economics of Compatibility Standards: An Introduction to Recent Research', <i>Economics of Innovation and New Technology</i>, 1, 3–41</li> <li>Karl Ulrich (1995), 'The Role of Product Architecture in the Manufacturing Firm', <i>Research Policy</i>, 24, 419^40</li> <li>Gregory Tassey (2000), 'Standardization in Technology-Based Markets', <i>Research Policy</i>, 29, 587-602</li> </ol>	149 188 210
PART IV	<ul> <li>UNIVERSITIES AND THE INNOVATION PROCESS</li> <li>14. Adam B. Jaffe (1989), 'Real Effects of Academic Research', <i>American Economic Review</i>, 79 (5), December, 957-70</li> <li>15. David C. Mowery, Richard R. Nelson, Bhaven N. Sampat and Arvids A. Ziedonis (2001), 'The Growth of Patenting and Licensing by U.S. Universities: An Assessment of the Effects of the Bayh-Dole Act of 1980', <i>Research Policy</i>, 30, 99-119</li> <li>16. Bronwyn H. Hall, Albert N. Link and John T. Scott (2001), 'Barriers Inhibiting Industry from Partnering with Universities: Evidence from the Advanced Technology Program', <i>Journal of Technology Transfer</i>, 26 (1/2), 87-98</li> <li>17. Josh Lerner (2005), 'The University and the Start-Up: Lessons from</li> </ul>	229 243 264
	the Past Two Decades', <i>Journal of Technology Transfer</i> , 30 (1/2), 49-56	276
PART V	TECHNOLOGY TRANSFER POLICIES	
	<ol> <li>Michael M. Crow (1988), 'Technology and Knowledge Transfer in Energy R&amp;D Laboratories: An Analysis of Effectiveness', <i>Evaluation and Program Planning</i>, 11, 85-95</li> </ol>	287
	<ol> <li>Barry Bozeman (1994), 'Evaluating Government Technology Transfer:.Early Impacts of the "Cooperative Technology</li> </ol>	
	<ul> <li>Paradigm'", <i>Policy Studies Journal</i>, 22 (2), 322-37</li> <li>20. David.C. Mowery and Bhaven N. Sampat (2005), 'The Bayh-Dole Act of 1980 and University-Industry Technology Transfer: A Model for Other OECD Governments?', <i>Journal of Technology</i></li> </ul>	298
	<ul> <li>Transfer, 30 (1/2), 115-27</li> <li>21. David J. Teece (2005), 'Technology and Technology Transfer: Mansfieldian Inspirations and Subsequent Developments', <i>Journal</i> of Technology Transfer, 30 (1/2), 17-33</li> </ul>	<ul><li>314</li><li>327</li></ul>
	SOCIAL IMDACT OF INNOVATION BOLICY	
PART VI	<ul> <li>SOCIAL IMPACT OF INNOVATION POLICY</li> <li>22. Zvi Griliches (1958), 'Research Costs and Social Returns: Hybrid Corn and Related Innovations', <i>Journal of Political Economy</i>,</li> </ul>	