Figures

2.1 Harman’s continuum of inter-institutional arrangements 22
2.2 Adapted from Harman’s continuum of inter-institutional arrangements 41
3.1 World university ranking for papers in nature and science 61
5.1 Mean value and differentiation in PhD intensity of Finnish universities, 1994–2005 109
5.2 Mean value and differentiation in PhD intensity of Dutch universities, 1994–2004 111
5.3 Mean value and differentiation in PhD intensity of Swiss universities, 1994–2003 113
5.4 Mean value and differentiation in PhD intensity of British universities, 1996–2003 114
5.5 Mean value and differentiation in PhD intensity of Spanish universities, 1994–2002 116
5.6 Mean value and differentiation in PhD intensity of Italian universities, 2001–05 117
5.7 Comparative analysis of PhD intensity, all countries, 1994–2005 118
5.8 Comparative analysis of the differentiation index in PhD intensity, all countries, 1994–2005 119
6.1 Research orientation, average 2001–06 143
6.2 Density across research subjects, average 2001–06 147
6.3 Research productivity, average 2001–06 148
7.1 US universities by sources of R&D funding 165
7.2 Growth in the establishment of technology transfer offices after Bayh–Dole 168
7.3 R&D expenditures at universities and colleges funded by industry 170
7.4 Disclosures received and new US patents filed, AUTM, 2007 172
7.5 Growth of patents issued before and after Bayh–Dole 174
7.6 Highly skewed distribution of licensing revenues 176
7.7 University spinouts per year, 1993–2004 179
8.1 Academic patent applications, by country, 1978–2002 198
8.2 Technological distribution of academic patent applications, by country, 1994–2002 200
8.3a Academic patent applications from France, Italy and Sweden, by technology and year

8.3b University-owned patent applications from USA, by technology and year

8.4 Academic patent applications from France, Italy and Sweden, 1985–99, detail of most relevant classes

8.5 Academic patents as percentage of all patents by domestic inventors, 1985–99, detail of most relevant classes

8.6 Ownership of academic patents by domestic inventors in France, Italy, Sweden, and the USA, 1994–2001 (granted patents only)

8.7 Ownership of academic patents, selected technologies, 1994–2001

8.8 Ownership of academic patents, by year, 1981–2001

8.9 Weight of academic patents on total patents by domestic inventors, by country and type of ownership (1994–2001, granted patents only)

9.1 Conceptual model of the selection environment affecting individual researchers

9.2 Comparison of sample and population based on researcher categories

9.3 Commercialization frequency in different research fields

9.4a Attitude towards commercialization, for individual and research group

9.4b Attitude towards patenting, for individual and research group

9.4c Attitude towards founding a company, for individual and research group

12.1 Four layers within the university: Who’s competing?

12.2 Knowledge-intensive services creating open boundaries in the university