

Do patent quality concerns undermine the value of patent statistics?



**EPO/OECD
Patent Statistics for Decision Makers
Conference
Vienna, 7 – 8 October 2009**

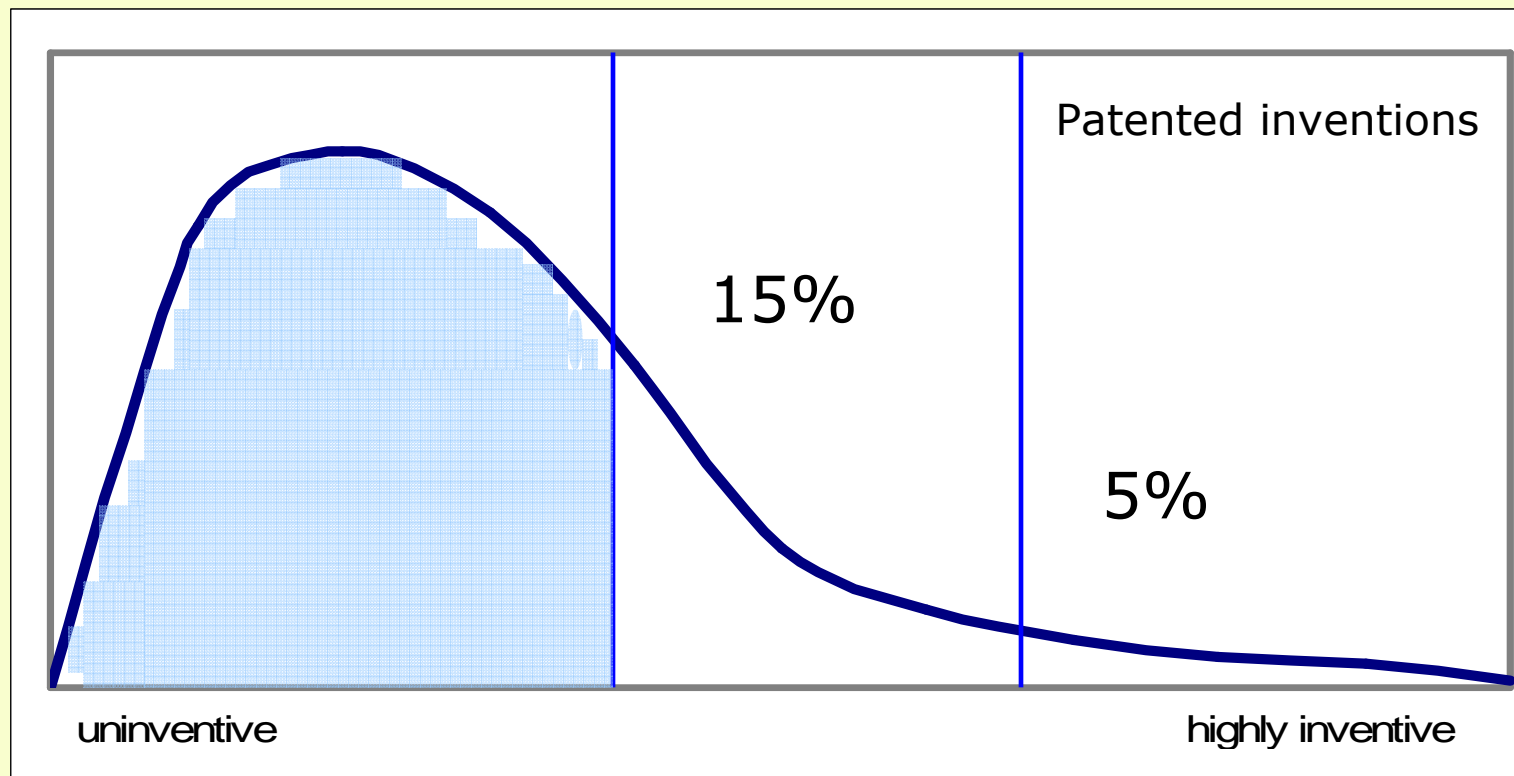


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Outline of presentation

- ❑ Changing inventiveness standard
 - ❑ Evidence on inventive step height
 - ❑ Implications for patent data use
 - ❑ National Innovation Surveys
 - Why do they so little policy-relevant information on patents?
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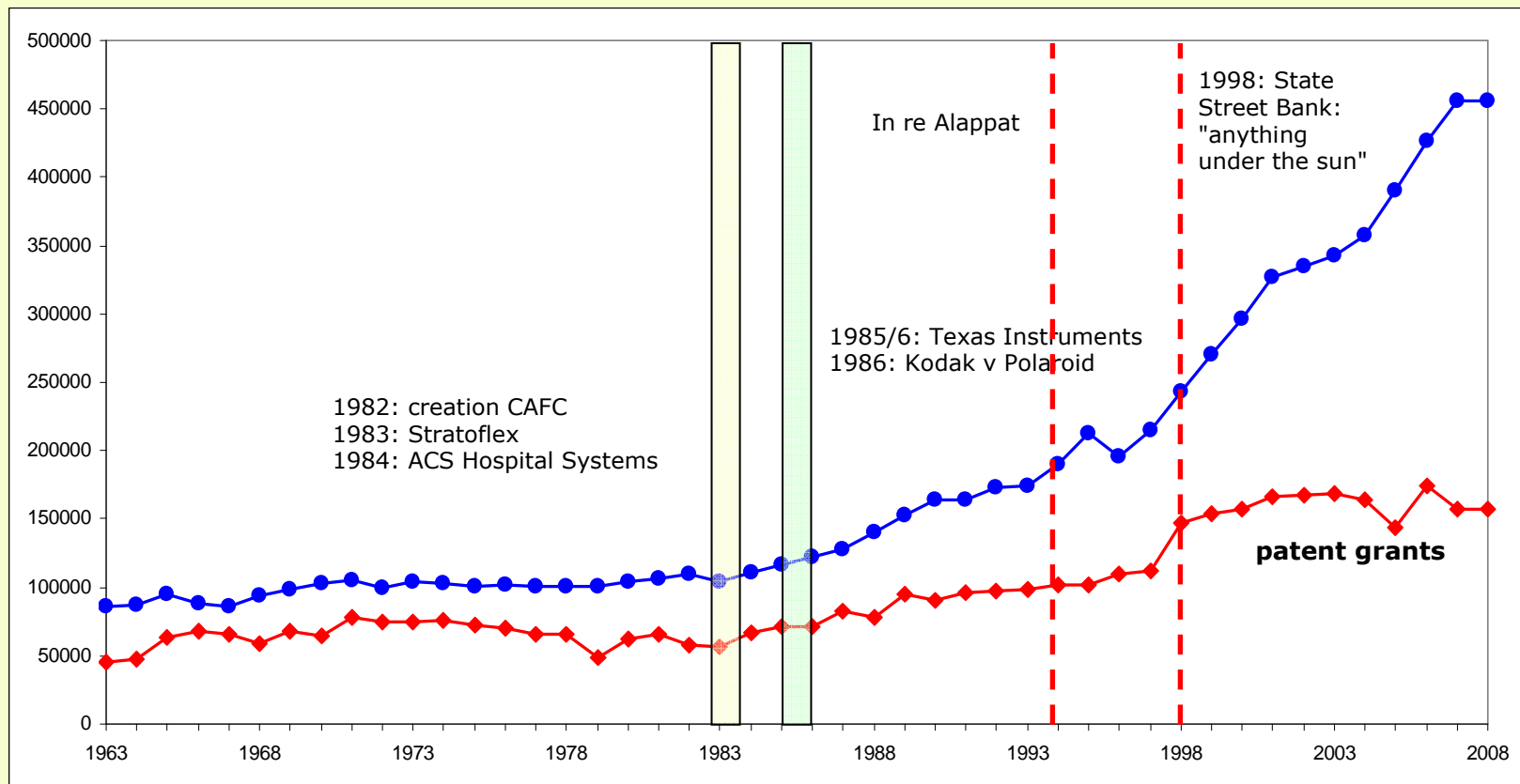
Notional inventiveness distribution



Has the inventiveness standard changed?

- USA: changing CAFC policies
 - Combinations doctrine
 - Shift from synergy to suggestion (1983/84)
 - Elevation of commercial success
 - Removal of subject matter boundaries
 - *In re Alappat* (1994)
 - “anything under the sun” (1998)
-

US applications & grants



Measuring the inventive height

- Much criticism
 - but mostly anecdotal evidence
 - 50 “best” US software patents
 - Against USPTO standards
 - Cohort of 72 AU business method
 - Against “any contribution to knowledge/know-how” yardstick
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Dataset used

- ❑ Australian business method patents
(IPC6: G06/17/60; IPC7 G06Q, excl 20/00)
 - ❑ Grants from filings 2003 - 2006
 - Accepted (or sealed) by 30 June 2007
 - 94 cases → 72
 - ❑ 21 not business methods
(18 from 1 company)
 - ❑ 1 Patent of Addition
-

Findings

- ❑ No contributions to knowledge or know-how
 - ❑ A few possible new ideas
 - But no idea/artefact distinction
 - ❑ Patent rules allow monopoly grant for a **scintilla of inventiveness**
difference
-

Findings

❑ USPTO: 53/72 known US version

❑ Granted 14

❑ Refused 13

❑ Pending 26

❑ EPO: 34/72 known EPO version

❑ Granted 3

❑ Refused 14 ** (generally subject matter)

❑ Pending 17

Reasons for grant

- Freight forwarder also credit checker
 - ‘... none of the art of record, alone or in combination, disclose that *the freight carrier*, in a trade transaction, that ships the goods to the buyer *is also playing the role of a financial facilitator ...*’ (emphasis added).
- Using RFID tags to authenticate use
 - “The prior art ... fails to teach a first RFID tag attached to an item prior to an event is to permit the detecting means to authenticate that the item has been used at the event ...”

From USPTO examiner reports allowing grant

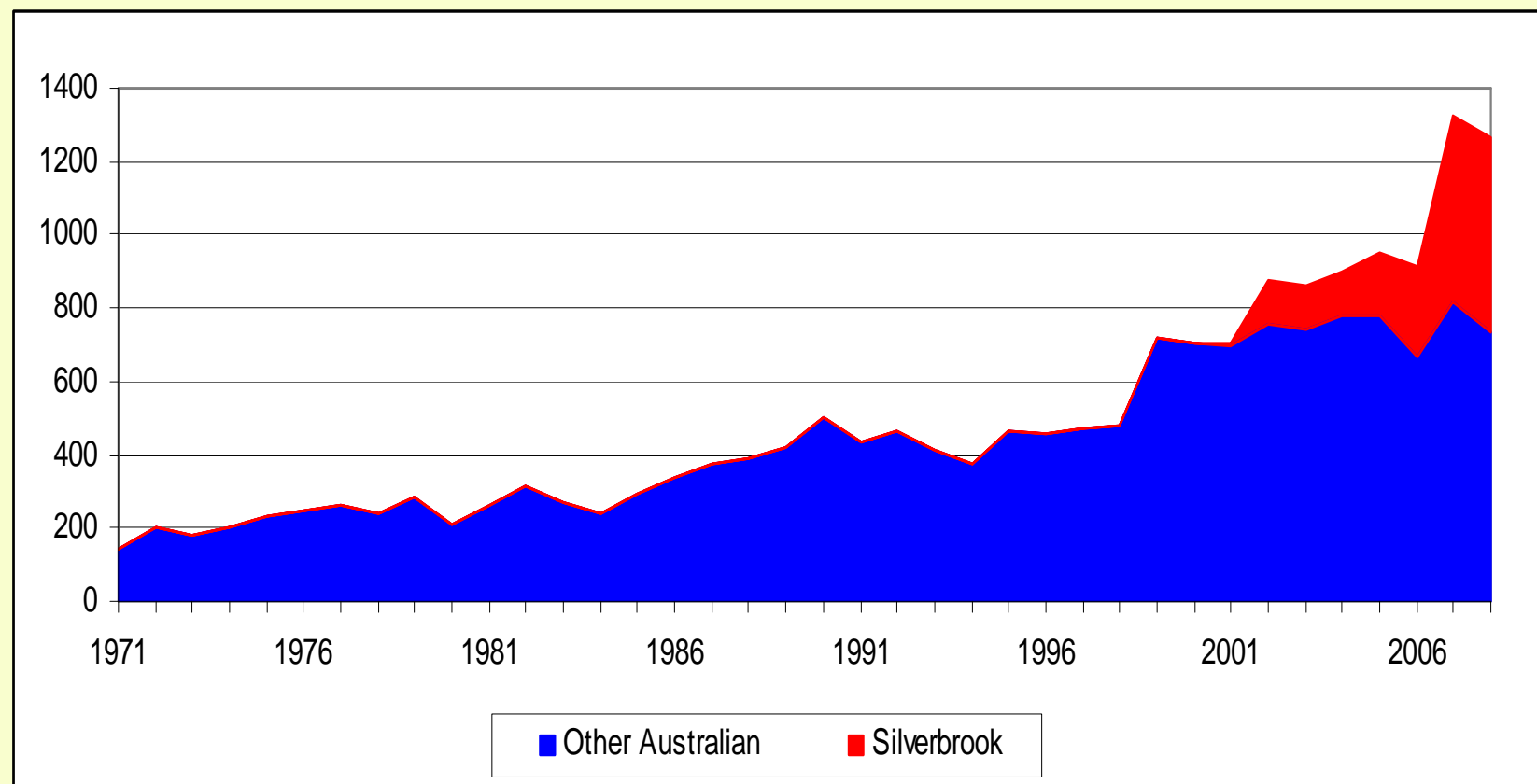
Reasons for grant

- ❑ Server reverts to standby mode
- ❑ Slightly longer length of supply chain
- ❑ “a data logger arranged to sense data corresponding to the predetermined condition of the goods and provide the sensed data to the data storage means”— i.e. a data input device

Generalisability

- ❑ TRIPS: no discrimination by technology
 - ❑ Business methods and software: much existing knowledge not codified
 - surprise is extent of existing (patented) knowledge:
 - ❑ 58/69 cases
 - Determining grant issue - procedural rules:
“suggestion” test, onus on patent office, non-use
analogous use test, trivial difference = non-obvious
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US patents with Australian inventors, 1971-2008

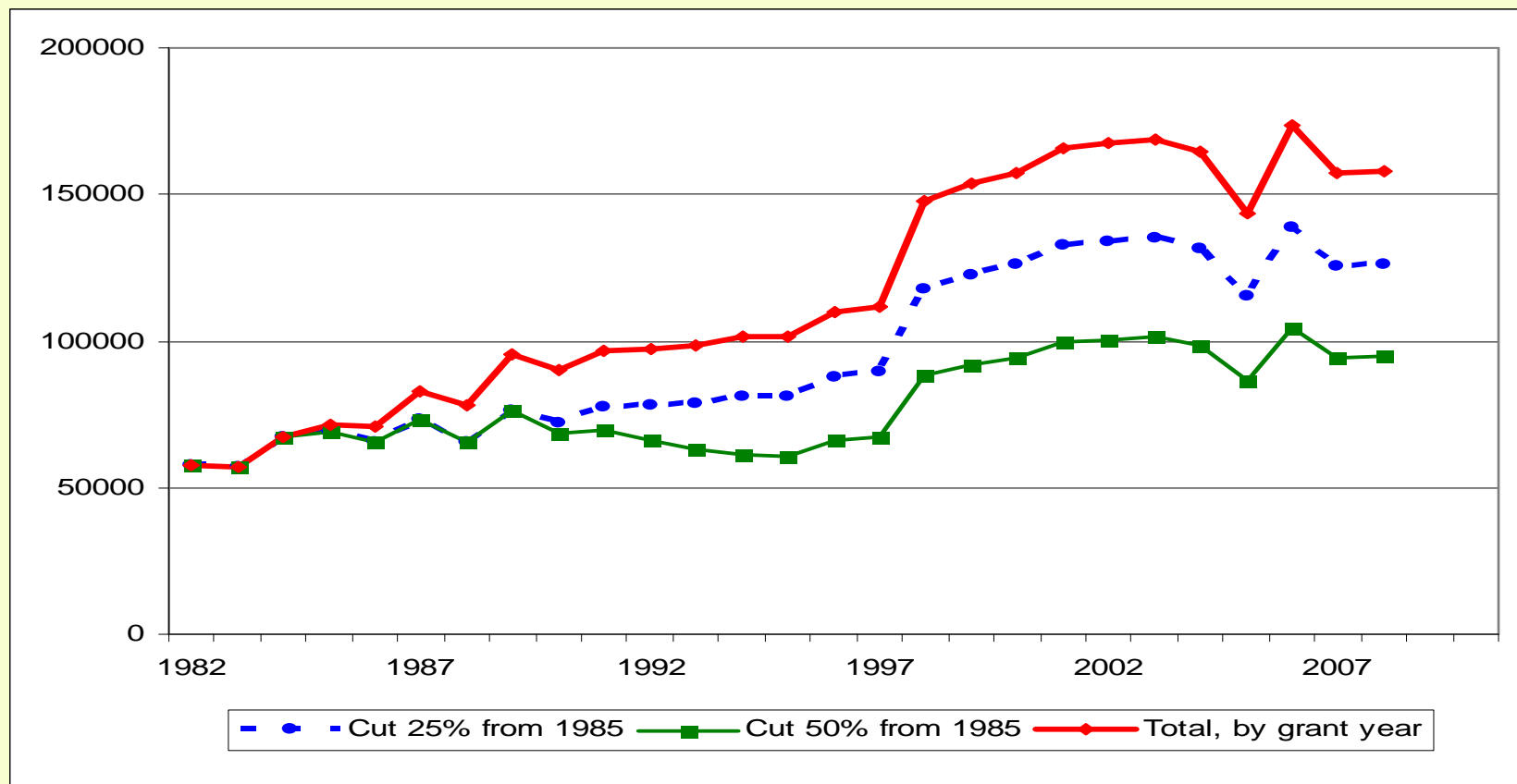


Source: calculated from http://www.uspto.gov/web/offices/ac/ido/oeip/taf/h_at.htm#PartA1_1a and Part B

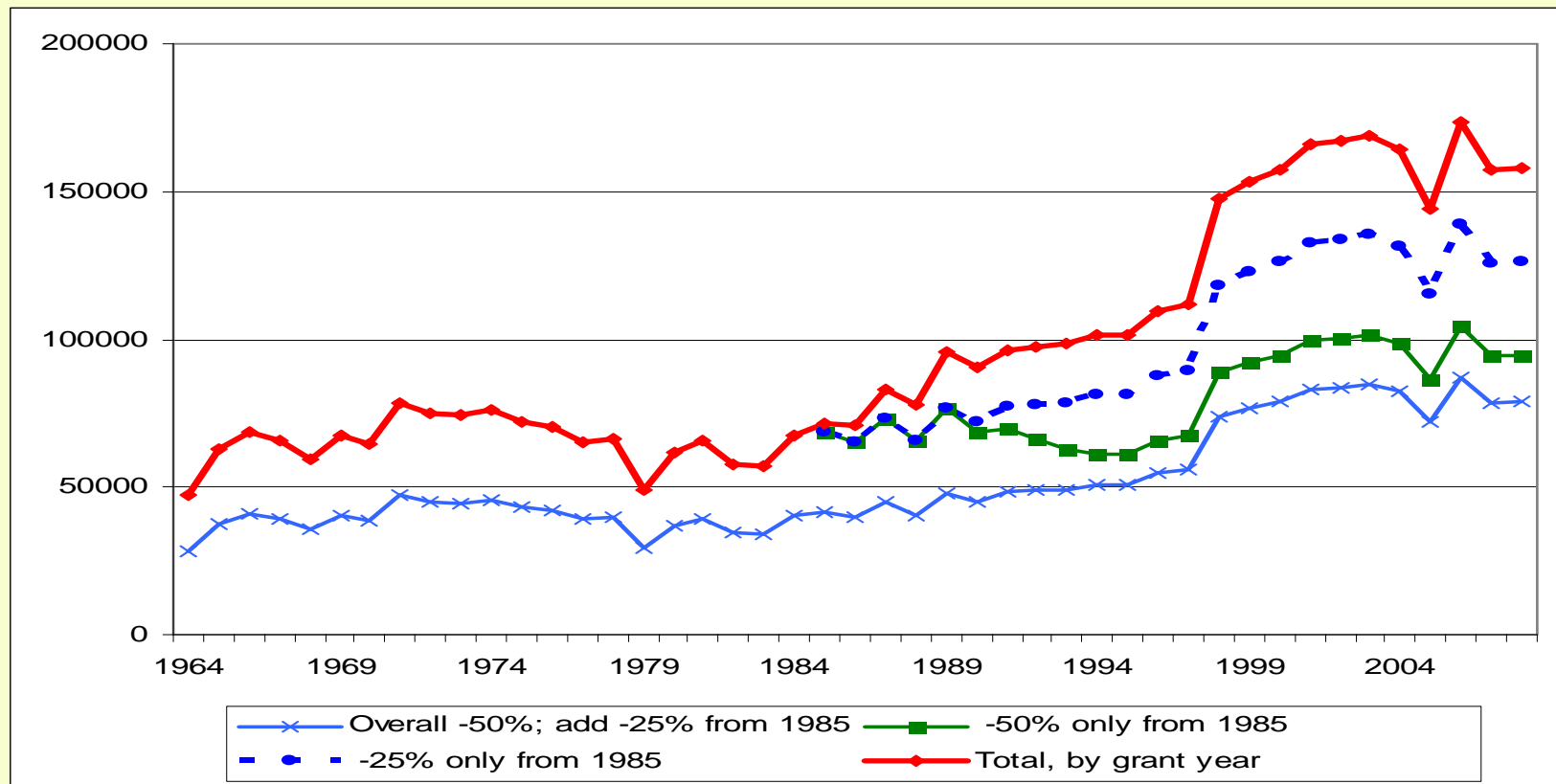
Examples of Silverbrook patents

- ❑ Method and system for searching information using coded marks (AU2003248037) 51 claims
 - ❑ Method and system for searching information using processing sensor (AU2003248039) 47 claims
 - ❑ Method of requesting an action in a computer system via printed form (AU2006200747) 32 claims
 - ❑ A method for accessing travel services (AU2004202969) 24 claims
 - ❑ Network Refrigerator and Printer (AU2005200941) 19 claims
 - ❑ Method and system for advertising (AU2003262339) 7 claims
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Quality-adjusted US grants, 1980-2008



Quality-adjusted US grants, 1964-2008



Does citation weighting fix the problem?

- Asymmetry between measuring quality inventions and non-inventions
 - What do forward citations measure?
 - What do backward citations measure?
 - How do citation-weighted indices relate to the changing standard?
-

Persistent use of patent data to measure innovation

- ❑ US patent volumes used to measure “national innovative capacity”

(Furman, Porter and Stern, 2002)

- Australia updates using this measure

(IPRIA/Gans et al., 2003, 2009)

- But does this measure more than:

- ❑ R&D inputs (R&D \$s: R^2 0.93; FT S&T: R^2 0.98)

- ❑ Size of market (GDP: R^2 0.97; pop: R^2 0.94)

Patent data: not policy useful

- ❑ Patent Office collections
 - no company ID #s
 - no data on use
 - ❑ National Innovation Surveys
 - incentive effect?
 - information on types of uses?
 - impact of other firms' patents?
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Thank you

Any comments or criticisms to

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