

Bi-Level Technologies

From the Selected Works of Ron D. Katznelson

Winter February 15, 2013

Surviving the America Invents Act's overhaul of U.S. patent law - Startup and small business perspectives

Ron D Katznelson, *Bi-Level Technologies*



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Surviving the America Invents Act's overhaul of U.S. patent law

- Startup and small business perspectives

Utah IP Summit, Salt Lake City, February 15, 2013

By Ron D. Katznelson, Ph.D. President, Bi-Level Technologies

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Content

- Notable changes in patent law
 - ❑ First-to-File and redefinition of prior art
 - ❑ Effective elimination of the Grace Period
 - ❑ Broad expansion of Prior User Rights
 - ❑ Filing by non-inventors, oath & declaration
 - ❑ Post Grant Review proceedings
 - ❑ Supplemental examination and preissuance submissions by third parties
 - ❑ Fee-Setting authority, new fees and microentities
- Current practice, implications and likely effects on the technology development process
- Reevaluating the tradeoffs between patenting and trade-secret protection
- Consider changes in defensive and offensive practices

First-To-File and redefinition of prior art

We may be litigating patents under both the current system and the new FTF system for about 20 years



AIA - Section 3

- Amends 35 U.S.C. §102 and § 103, transitioning U.S. patent law from invention-date-based system to a filing-date-based system
- “First-To-File” (FTF) *per se* – is an irrelevant ‘red herring’
 - ❑ there are only 20 interferences per year out of 500,000 applications
 - ❑ Instead of amending **only** §102(g) to FTF, the AIA does a lot more.
- Virtually eliminates the One-Year Grace Period that protects non-public inventor’s fundraising, marketing and R&D activities prior to filing
- Replaces interferences with derivation proceedings to resolve allegations of misappropriation of first inventor’s invention

Filing date-based priority; redefinition of prior art

Current law (for patents applied before March 16, 2013):

35 U.S.C. § 102 *CONDITIONS FOR PATENTABILITY; NOVELTY AND LOSS OF RIGHT TO PATENT.*

A person shall be entitled to a patent unless —

(a)...

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States.

AIA provides in pertinent part the following:

“102 (a) *NOVELTY; PRIOR ART.*—

A person shall be entitled to a patent unless—

(1) the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention;”

(Emphasis added)

AIA's limited grace period

§102(b) EXCEPTIONS.—

(1) DISCLOSURES MADE 1 YEAR OR LESS BEFORE THE EFFECTIVE FILING DATE OF THE CLAIMED INVENTION.—

A *disclosure* made 1 year or less before the effective filing date of a claimed invention shall not be *prior art* to the claimed invention under subsection (a)(1) if—

(A) the *disclosure* was made by the inventor or joint inventor or by another who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor; or

(B) the subject matter *disclosed* had, before such disclosure, been *publicly disclosed* by the inventor or a joint inventor or another who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor.

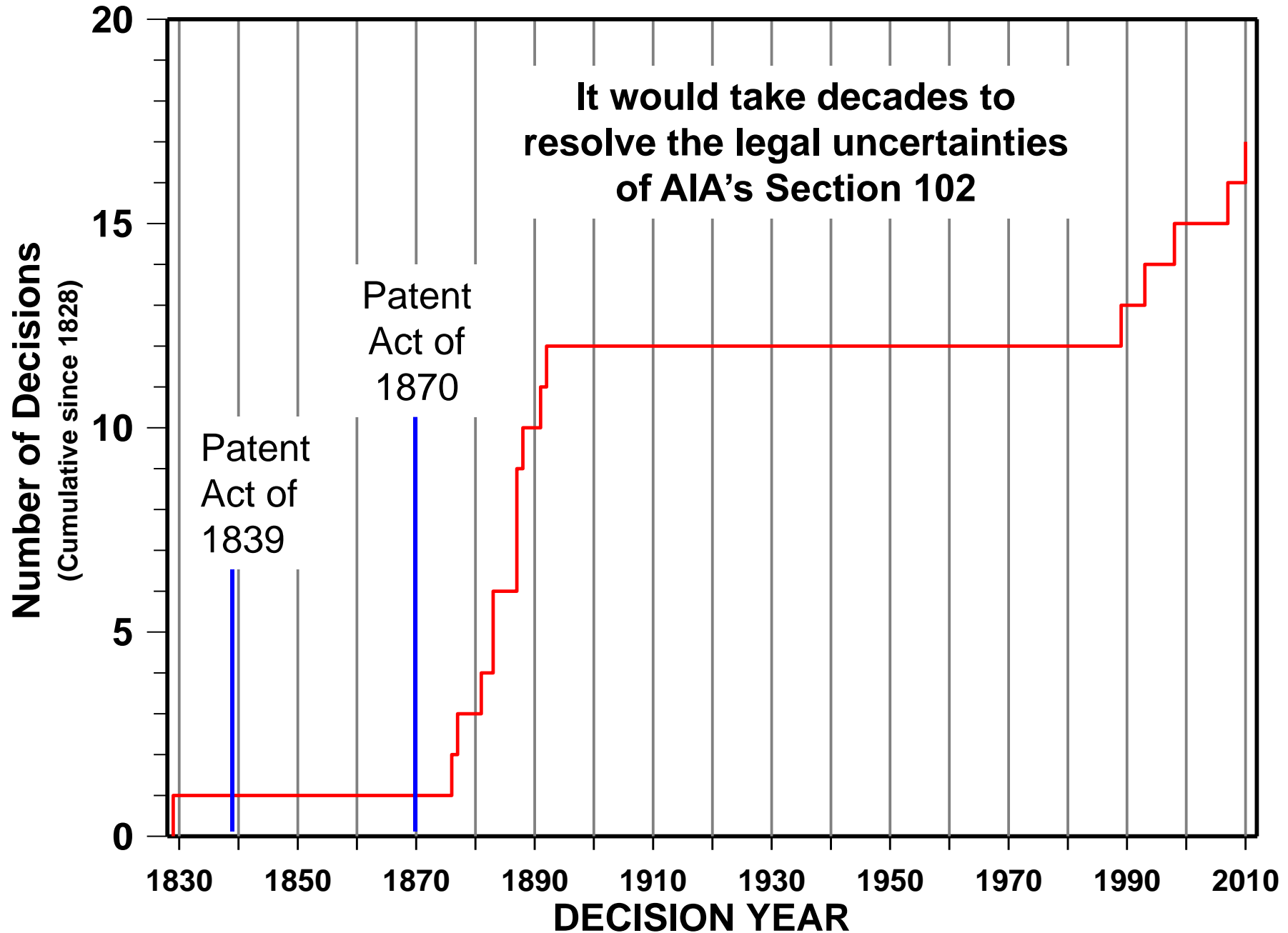
Ambiguities & uncertainties of the AIA



- The terms '**public use**' and '**on sale**' have well-established legal meaning; over 600 precedential court cases.
- New terms '**otherwise available to the public**' or '**subject matter of the patent**' have uncertain legal meaning.
- Old § 102(a) terms "**known or used by others**" disappeared.
- § 102(f) repealed, leaving no express statutory basis for invalidating patents of non-inventors, notwithstanding their declaration or oath.
- Colloquy "explaining" ambiguities never took place on Senate floor – placed in record a day after passage.
- The ambiguity is not a "bug" – it is a "feature."

Supreme Court decisions on the 'public use' and 'on sale' bar

As cited in 171 A.L.R. Fed. 39 and 155 A.L.R. Fed. 1



**Does the AIA Repeal bars against
patenting long-held commercially
exploited secrets?**

Does the AIA Repeal bars against patenting long-held commercially exploited secrets?

“If an inventor should be permitted to hold back from the knowledge of the public the secrets of his invention; if he should for a long period of years retain the monopoly, and make, and sell his invention publicly, and thus gather the whole profits of it, ... and then .. he should be allowed to take out a patent, ... it would materially *retard the progress of science and the useful arts*, and give a premium to those who should be least prompt to *communicate their discoveries*.” *Pennock v. Dialogue* 27 U.S. 1,19 (1829).

“[i]t is a condition upon the inventor's right to a patent that he shall not exploit his discovery competitively after it is ready for patenting; he must content himself with either secrecy or legal monopoly.” *Metallizing Engineering Co. v. Kenyon Bearing & Auto Parts Co.*, 153 F.2d 516, 520 (2nd Cir. 1946).

Does the AIA Repeal bars against patenting long-held commercially exploited secrets? (Cont'd)

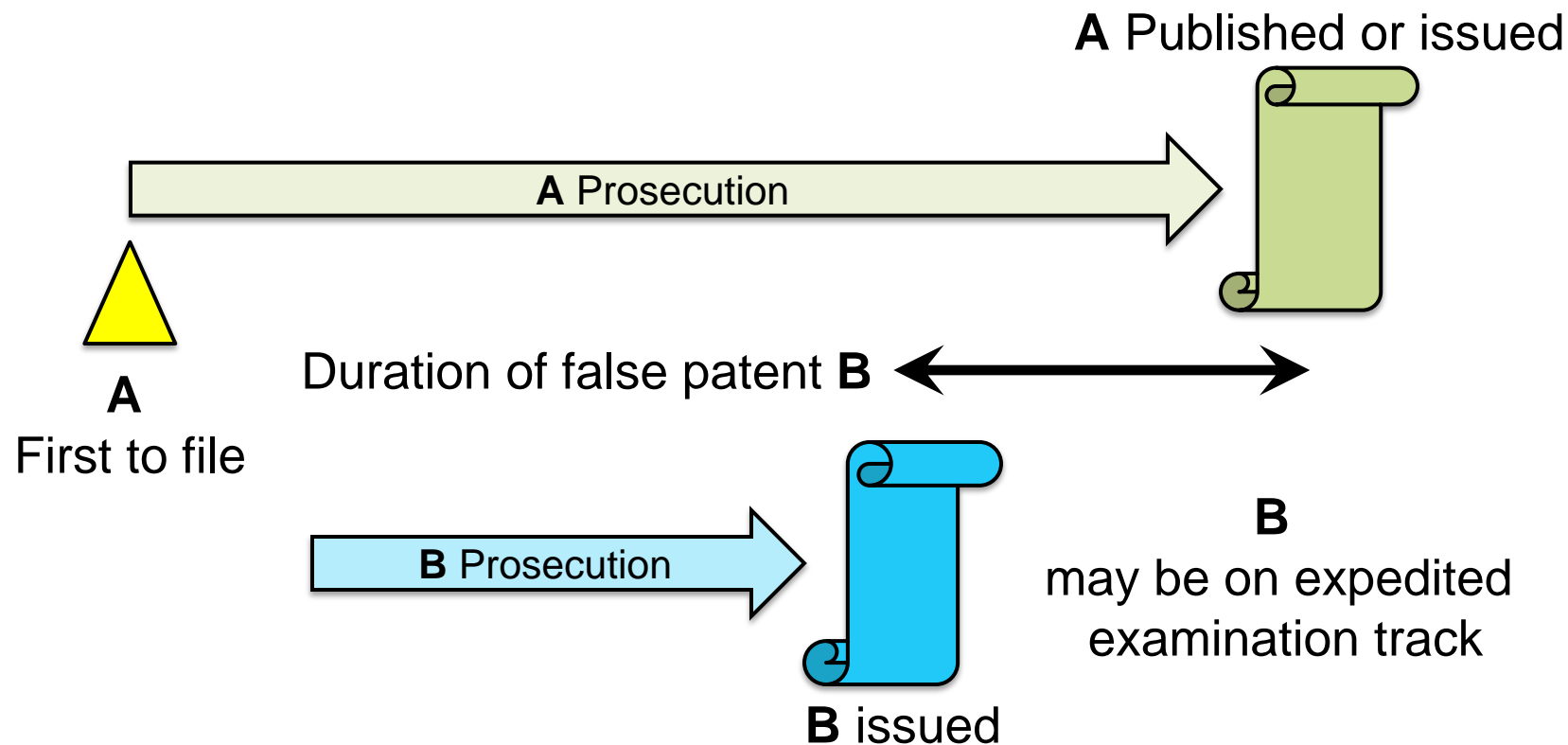
- USPTO's new FTF examination guidelines interpret the AIA as having repealed the secret commercialization bar in *Pennock* and *Metalizing Engineering*.
- Under this interpretation, companies would be able to “evergreen” and patent old trade secrets for which patent rights were previously forfeited.
- However, courts would have to rule on this issue – they cannot defer to the USPTO's interpretation as it has no substantive rulemaking authority.
- While the USPTO must adopt internal guidelines, applicants cannot strategically afford to rely on them as guarantees.

Interpreting the AIA to repeal *Metallizing Engineering* may not be permissible under the Constitution

- This construction of the AIA also appears contrary to the “limited time” Constitutional imperative.
 - ❑ At the time of the Framing, the word “limited,” meant what it means today: “confined” or “circumscribed”; the antonym “unlimited” was used to define the term “discretionary.”
 - ❑ Because an invention that is patentable under the AIA would not have been “otherwise available to the public,” the inventor (or a permitted user) would necessarily be the **exclusive** user during the secret exploitation period.
 - ❑ Thus, the **total** exclusive period that will have been “secured ” for the inventor would not be “confined” or “circumscribed.” It would be of an unlimited term because a “discretionary” decision as to when the last twenty years of the exclusive period begins—when a patent application is filed—is left to the inventor.
- While the courts must grant the AIA the full measure of deference owed to federal statutes, if a certain desired construction appears unconstitutional, as new § 102 does, the Supreme Court has explained that “every reasonable construction must be resorted to, in order to save a statute from unconstitutionality.” *Hooper v. California*, 155 U. S. 648, 657 (1895).

Other Patenting Risks under the AIA

AIA's risk of “false patents”

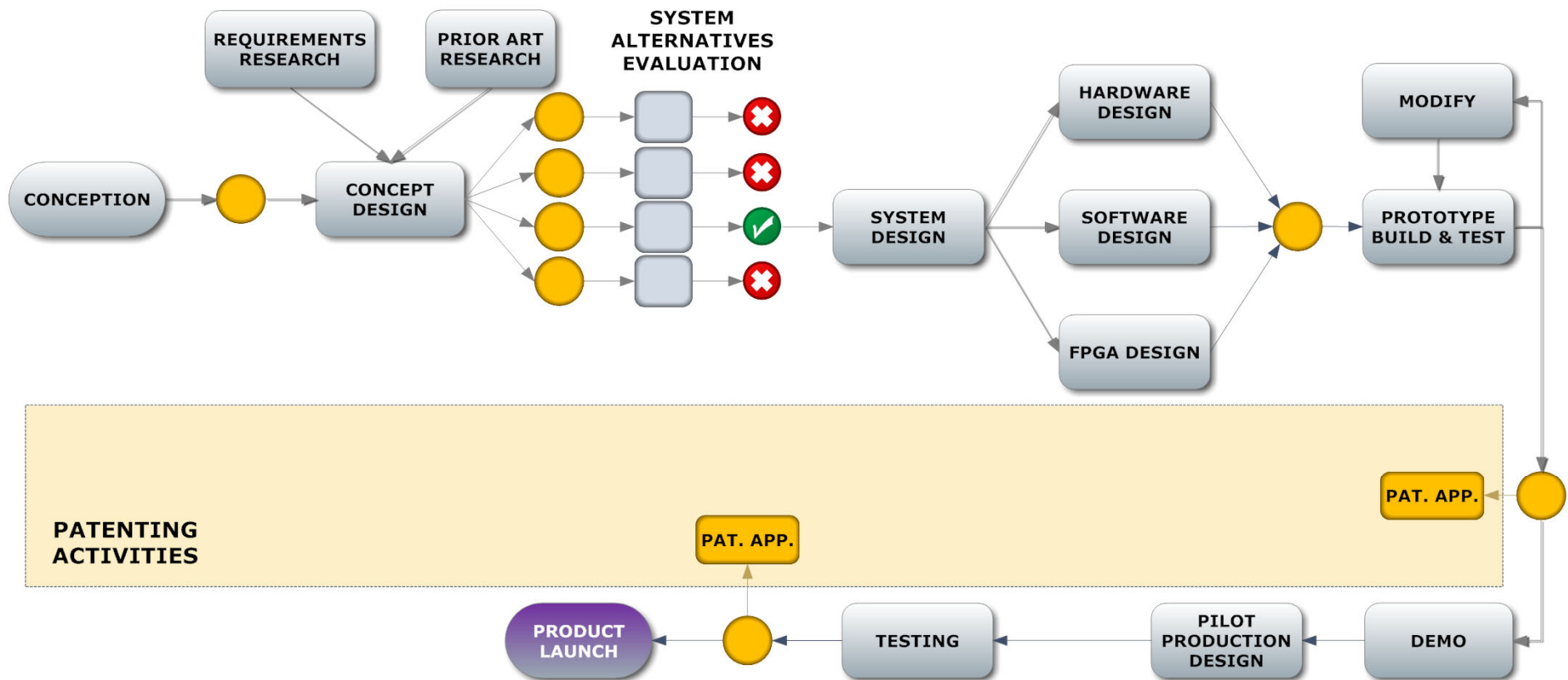


- **B** did not derive from **A**. Under the AIA, **B**'s patent is ***enforceable*** and cannot be invalidated until **A**'s application is available as prior art.
- Under current law, the examiner (or **A** later) may provoke interference without **A**'s publication

Prior User Rights

- Amended § 273 provides an expanded defense to infringement based on prior commercial use of (1) any process, or (2) any machine, manufacture, or composition used in a manufacturing or other commercial process
- Requires commercial use at least one year before the effective filing date of the asserted patent
- Applies to any patent issued on or after September 16, 2011
- Trade secret protection instead of patenting should be considered in view of this strengthened defense

Example of Startup “Best Practices” from invention to product launch

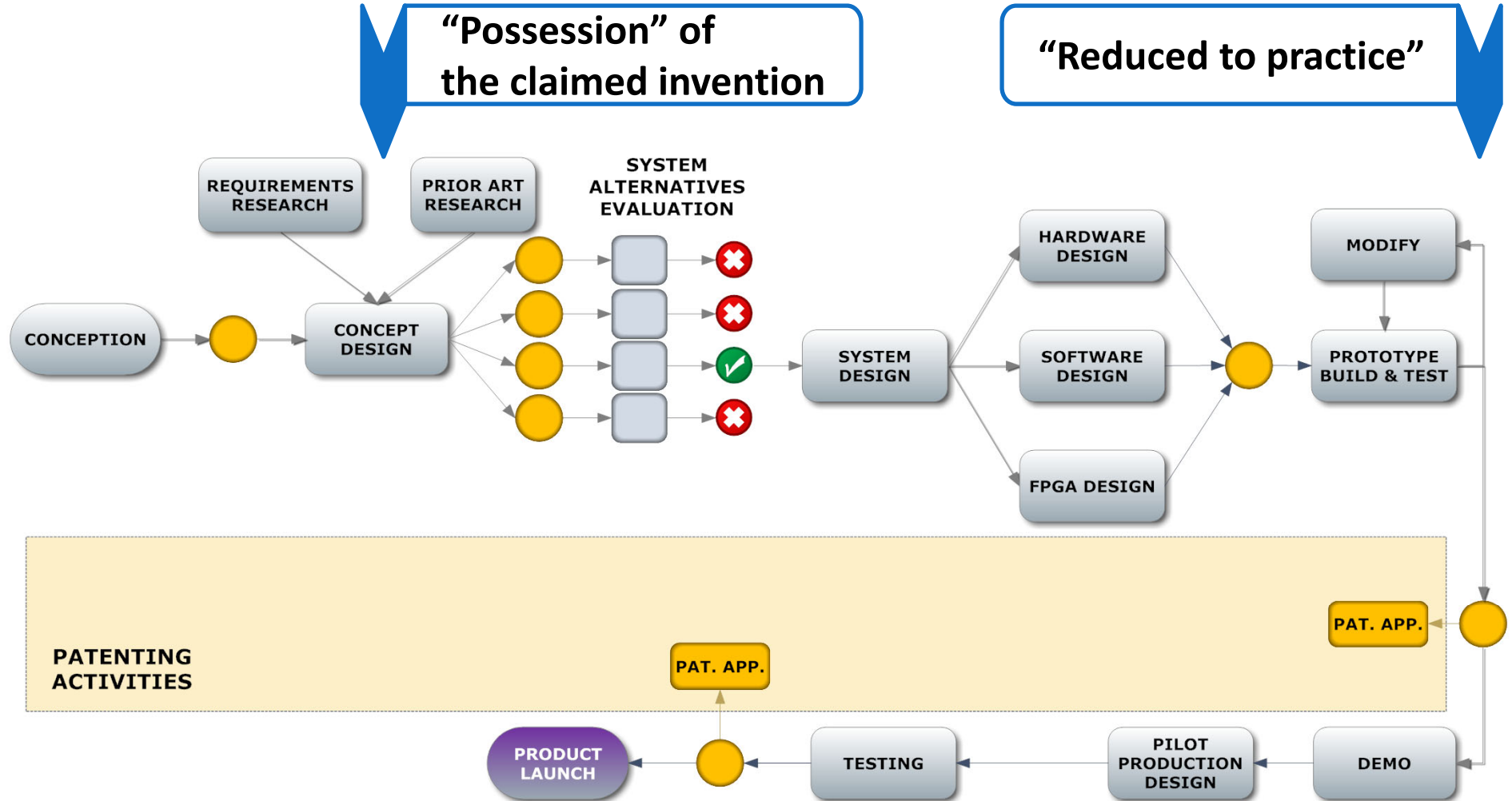


Current patent law is geared around innovators’ “best practices” that focus scarce resources on minimizing total development time and reducing technical risks

Concerns are not simply about the First-to-File – it is about the Grace Period

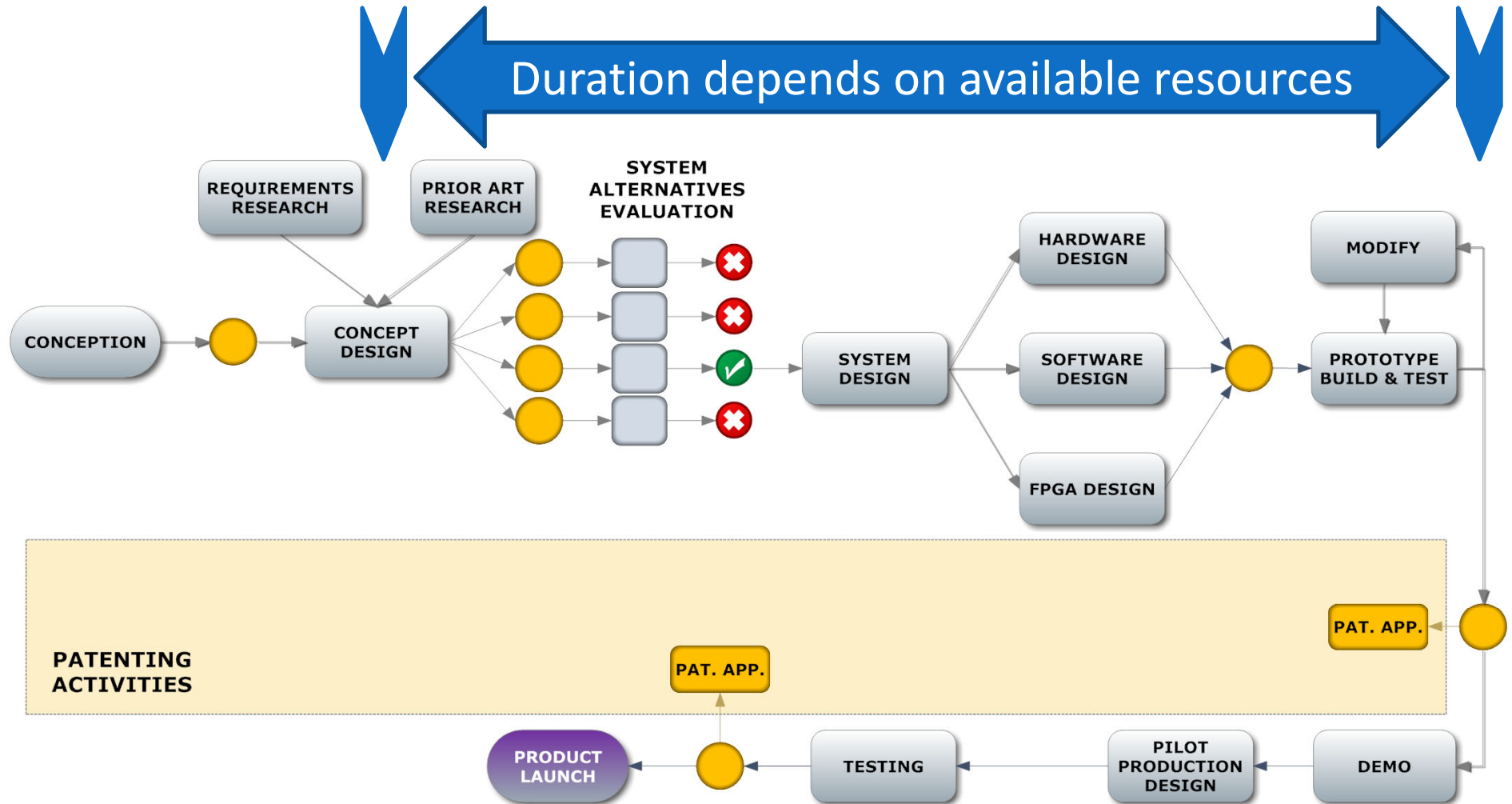
- The AIA's legal change is best described not as *First-to-Invent vs. First-to-File*: it is rather ***First-to-Conceive vs. First-to-Reduce-to-Practice.***
 - ❑ This is ***not*** only about 'rushing to the Patent Office'; Investors must assume they would need to make ***larger*** investment per startup in order to ensure adequate resources for ***accelerated reduction to practice.***
 - ❑ Piecemeal developments on small budgets would be much riskier, as patent rights might be lost to the more resourceful who are First-to-Reduce-to-Practice

First to “Conceive” vs. First to “Reduce to Practice”



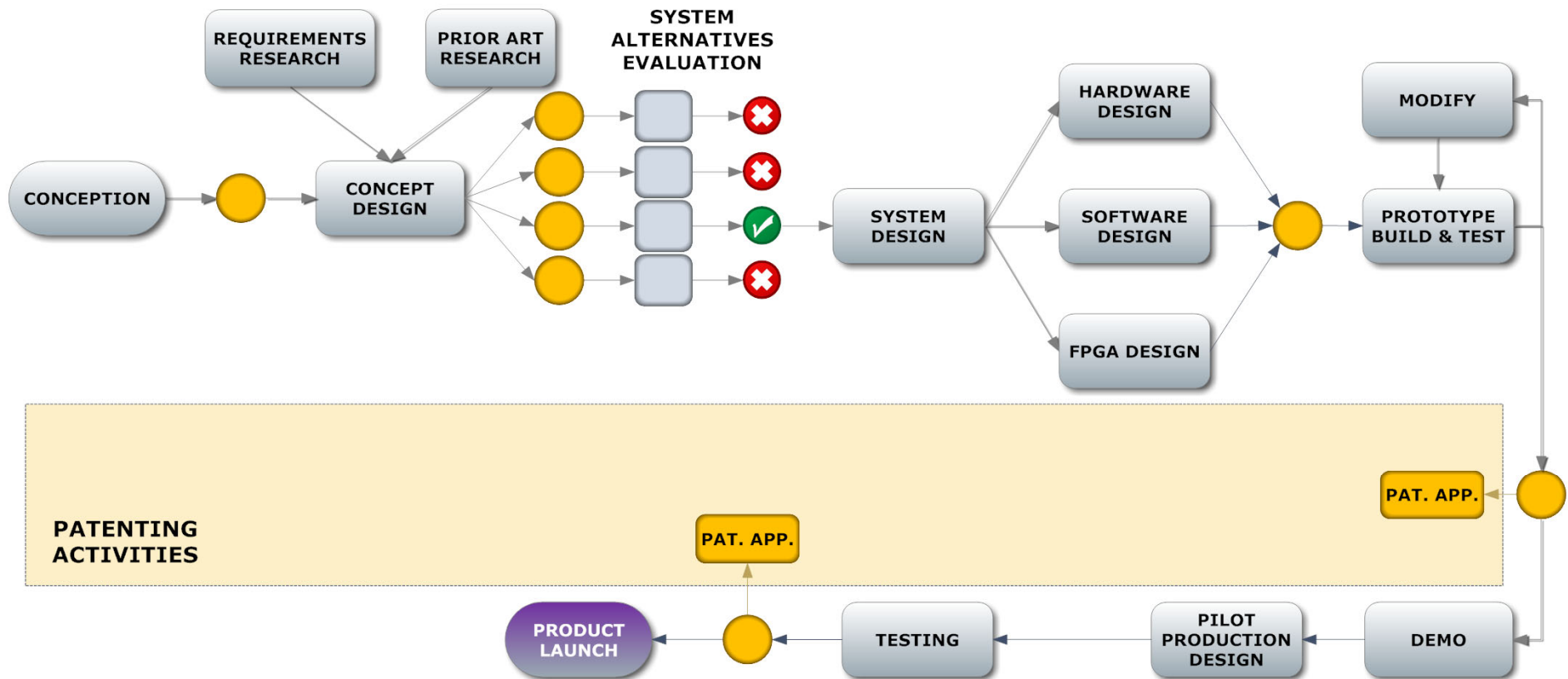
- Old law accords priority upon evidence of “possession” of the claimed invention – diligence in reduction to practice and written description per §112 required later.
- Under AIA, “conception,” “possession,” and diligence in reducing to practice are irrelevant – only filing date (constructive reduction to practice) is.

Handicapped by resource limitations



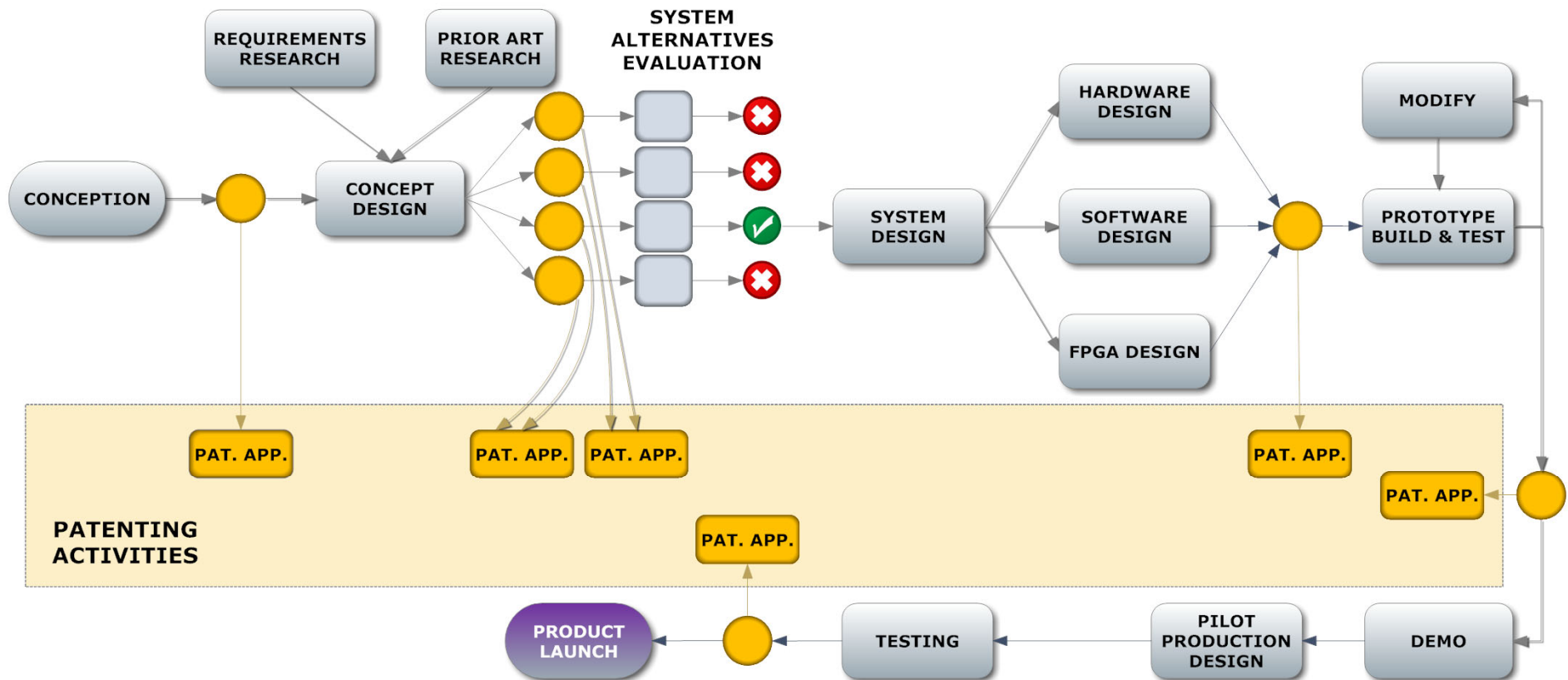
- Because filing (reduction to practice) date controls, large firms with ample resources have timing advantage over less resourceful inventors.

Example of Startup “Best Practices” from invention to product launch



Current patent law is geared around innovators’ “best practices” that focus scarce resources on minimizing total development time and reducing technical risks

The loss of a grace period under AIA may result in having to file premature applications more frequently



Premature applications may mismatch ultimate claims

3M Confidential

Record of Invention
REDACTED

ROI Number: **N005863**
REDACTED: **MSMD-00003**

Title: REDACTED

3M Investigator: ☐ None

Name (First, Middle): REDACTED

Non-3M Investigator: ☐ None

Description of the Invention (A short description of the invention. Description optionally includes a) summary, b) point(s) of the invention, and c) explanation and problems of current technology. Avoid use of code names, jargon, acronyms, etc. unless defined.)

REDACTED

Utility with Advantage(s) over Prior Art

REDACTED

Number of cells cfu/ml	Change in acoustic velocity
100	0.005
1,000	0.015
10,000	0.035
100,000	0.055

Fig. 5b Change in propagation velocity with polyimide as the waveguide.

Fig. 5b shows the change in propagation velocity with varying concentrations of bacteria with a polyimide waveguide. There is a linear relationship with the concentration of bacteria as observed in the phase shift.

These experiments were done at a temperature of 28 C where the clotting reaction was slower than at room temperature. Higher degree of phase shift and velocity is possible at lower temperatures.

Conclusions:

REDACTED

References:

REDACTED

Note that original invention records may disclose more than is ultimately required to support the claims. Current law gives applicants time to improve the disclosure and match it to commercially important claims

(12) **United States Patent**
Lakshmi et al.

(10) Patent No.: **US 7,399,609 B2**
(45) Date of Patent: **Jul. 15, 2008**

(54) **STAPHYLOCOCCUS DETECTION**

(75) Inventors: **Brinda B. Lakshmi**, Woodbury, MN (US); **Angela K. Dillow**, Minneapolis, MN (US); **M. Benton Free**, St. Paul, MN (US); **John S. Hutzinger**, Dellwood, MN (US); **Patrick A. Mach**, Shorewood, MN (US); **Danaratha V. Sridhar**, Woodbury, MN (US)

(73) Assignee: **3M Innovative Properties Company**, St. Paul, MN (US)

WO 02/079486 10/2002
WO 2002/082086 A2 10/2002
WO 03/025208 3/2003
WO 2005/064349 A2 7/2005
WO 2005/066092 A2 7/2005
WO 2005/075973 A2 8/2005

OTHER PUBLICATIONS

Saha et al. (2003) Probing the Viscosity and Mass of a Surface-Bound Protein Layer with an Acoustic Wave Device. *Langmuir* 19: 1304-1311.*

Saha et al. (2003) Comparative Study of IgG Binding to Proteins G and A: Nonequilibrium Kinetic and Binding Constant Determination with the Acoustic Waveguide Device. *Anal. Chem.* 75:835-842.*

AFFIDAVIT UNDER 37 C.F.R. 1.131

Commissioner for Patents

STATE OF MINNESOTA)
COUNTY OF RAMSEY)

I, Angela K. Dillow, being duly sworn, does hereby depose and say as follows:

- I am one of the Applicants of the above-identified patent application and one of the coinventors of the subject matter described and claimed therein.
- Prior to 2003, I completed the invention as described and claimed in the above-identified application in this country, the United States of America, as evidenced by the following:
 - Prior to 2003, I discussed with co-inventor Brinda Lakshmi the use of fibrinogen for detection of *Staphylococcus aureus* using the method described in Claims 1 and 29 of the above-identified patent application, Attorney Docket No. 58930US004. Evidence of the use of the method of Claims 1 and 29 of the above-identified application can be found in Medical Division Record of Invention No. 00003, a redacted copy of which Record of Invention is attached hereto and marked Exhibit A.
 - From pages 6-10 of Record of Invention No. 00003, it can be seen that:
 - a solution comprising 0.5% fibrinogen and 1% calcium ions was prepared;
 - a Surface Acoustic Wave (SAW) sensor coated with polyimide and polystyrene waveguides were provided;
 - the sensor was equilibrated in air to ensure a magnitude of at least -15 db;

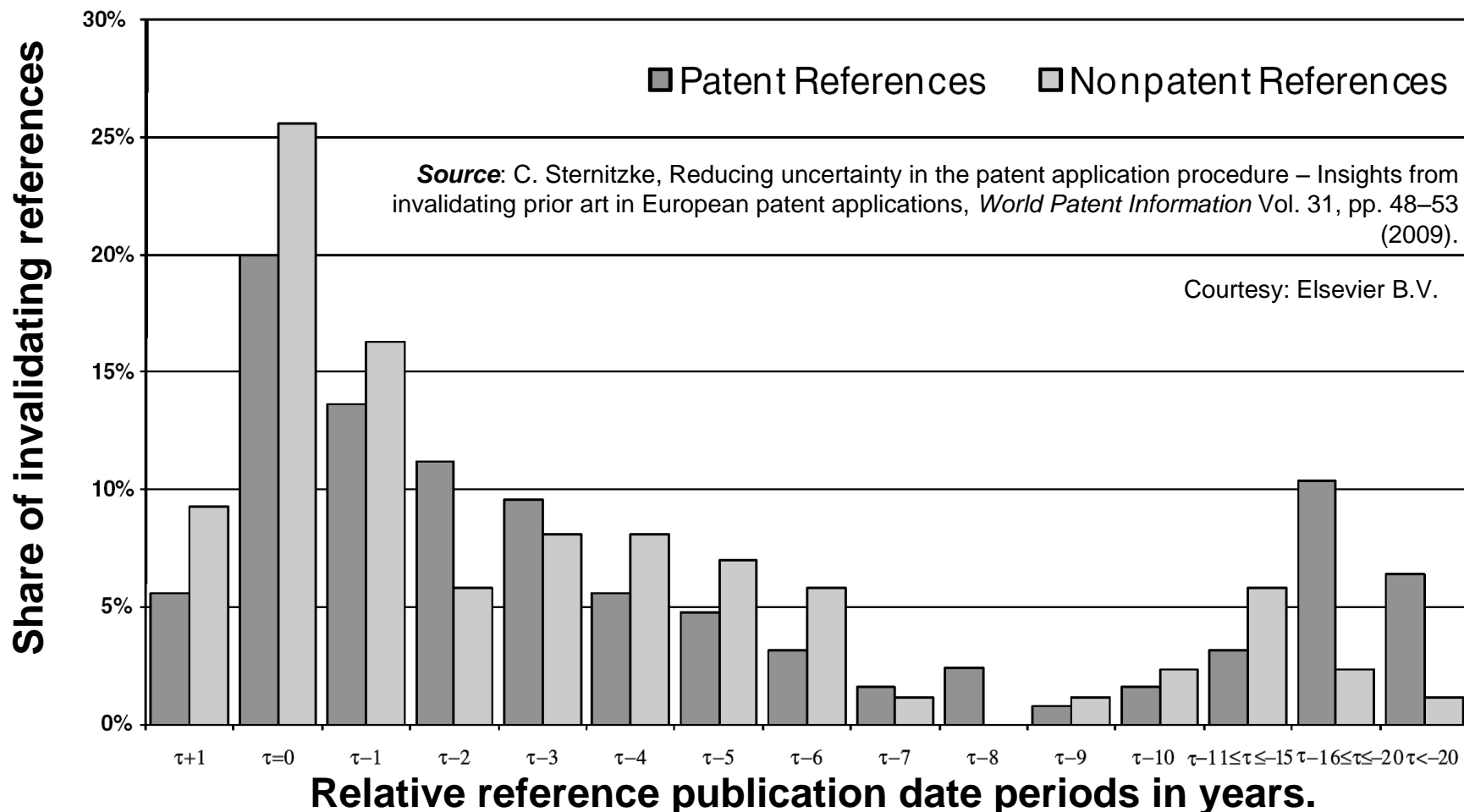
Rule 131 affidavit supporting early invention date

Consequences of eliminating the grace period

- Fundamentally redefines the prior art and limits patentability by including prior art created *after* the invention date to bar a patent
- Requires R&D planning, integrated with frequent invention reviews
- Timing of pilot production by subcontractors must be reviewed – no grace period should be assumed

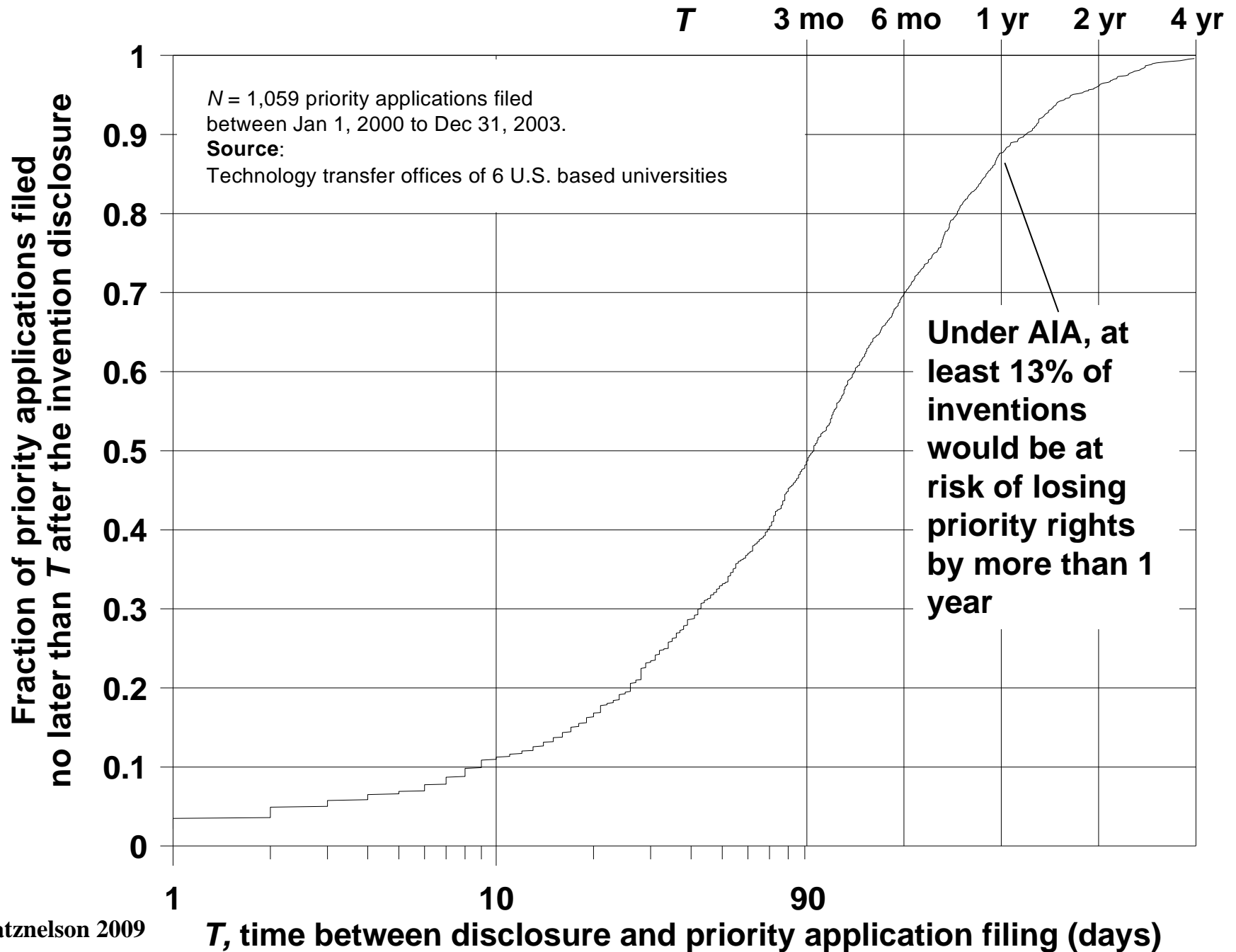
Prior art published less than one year prior to filing date is the most frequent source for invalidating patent applications

Relative date distribution of the invalidating prior art references cited in ultimately rejected EPO patent applications



Period bin definition: the $\tau = 0$ bin contains references published less than one year prior to the priority filing date. The $\tau - 1$ bin corresponds to references published no later than one year and no earlier than 2 years prior to filing date, etc. A small fraction of references published within one year after filing ($\tau + 1$) were used by EPO examiners mostly as review of prior art cited within or as expositions of the level of skill in the art.

Time between invention disclosure receipt at US-based universities and filing of the priority patent application with USPTO

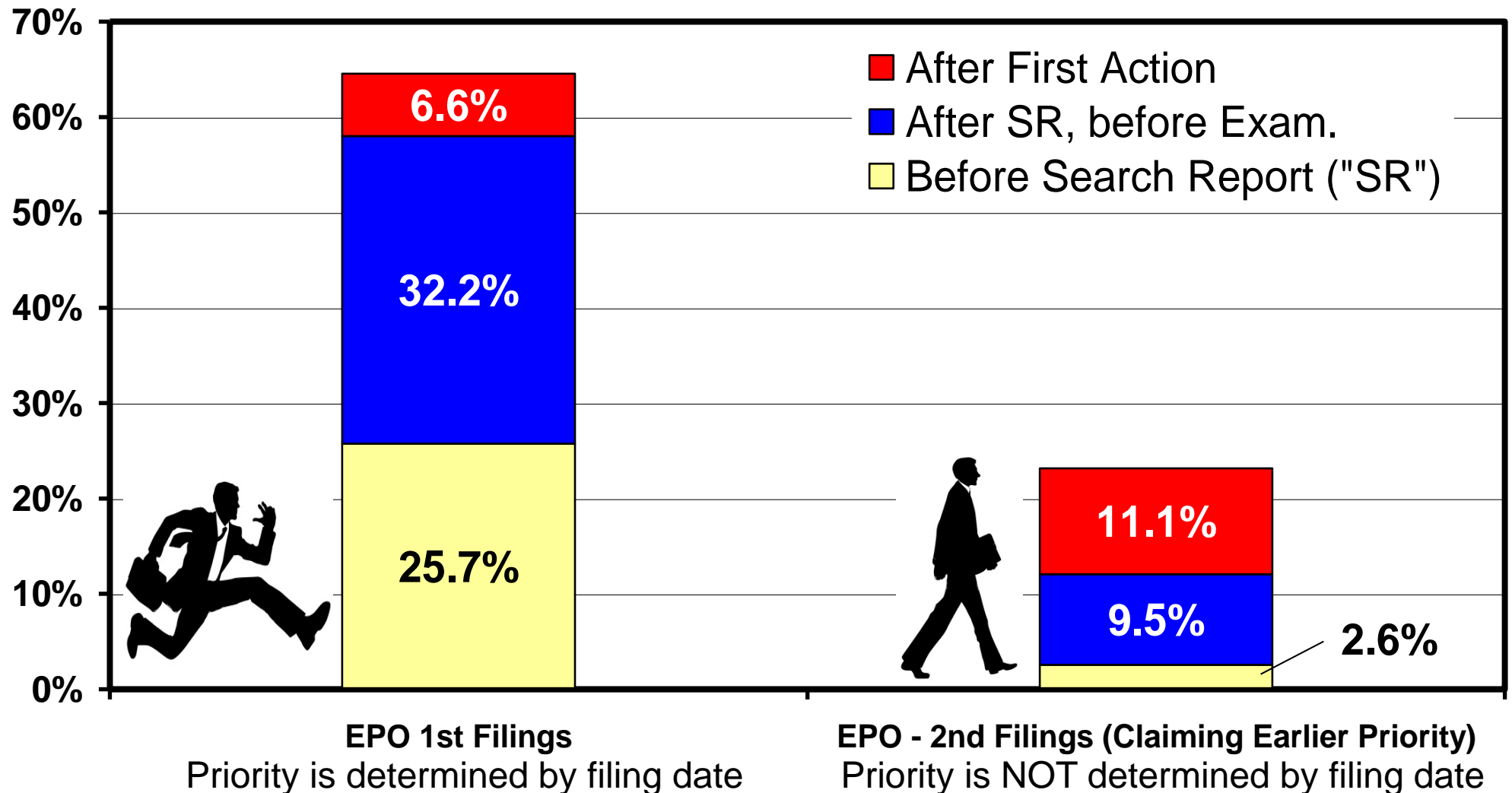


Applications with priority dependent on filing date are less mature and are more likely to be abandoned

Fraction of Applications Abandoned

EPO Patent Application Abandonment Stages

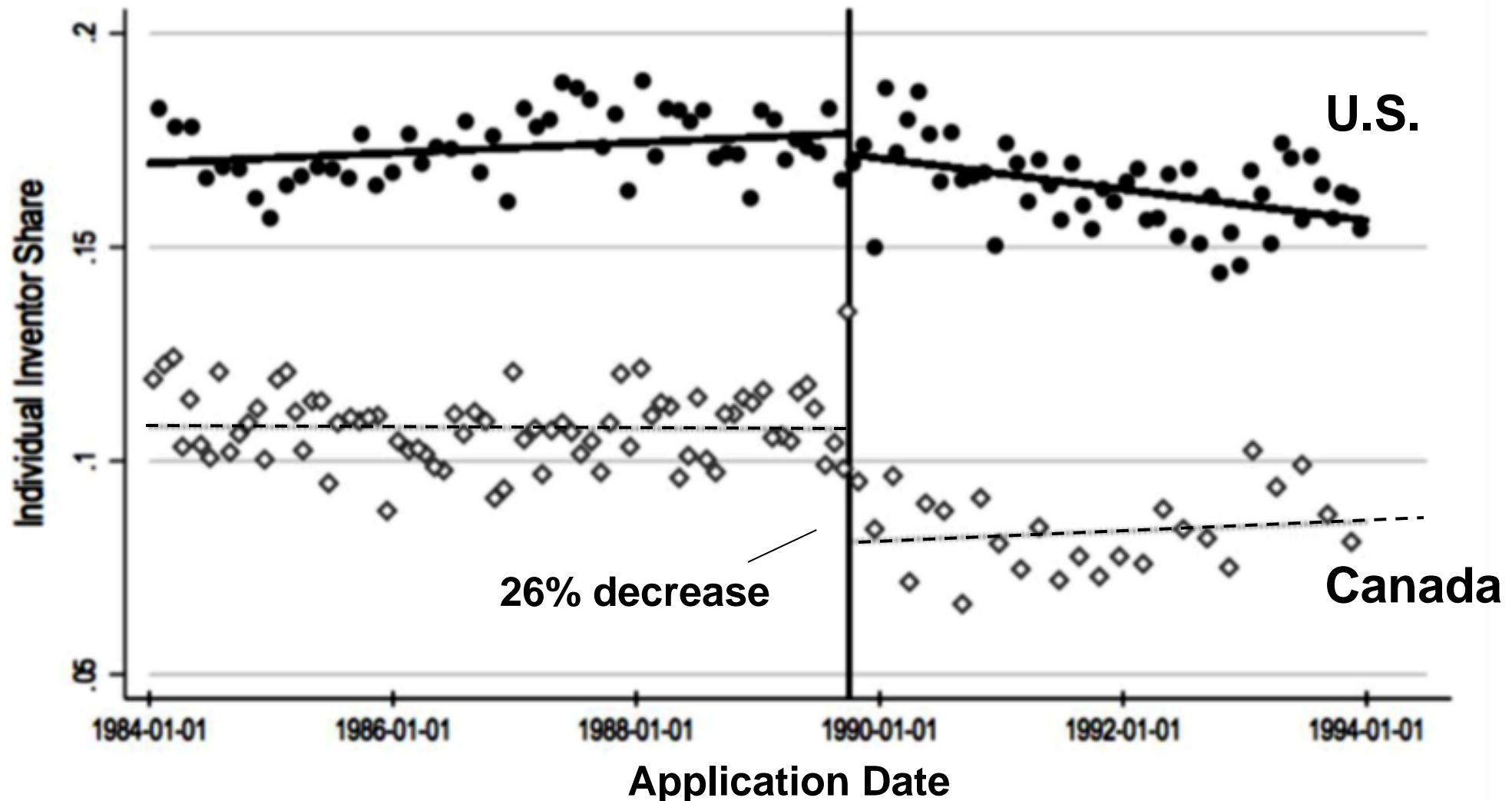
(Euro-Direct filings in 1997-1999)



Data Sources: EPO Data from G. Lazaridis et al. *World Patent Information* 29, pp. 317-326, (2007). "After SR, before Exam" and "First Action" here means the withdrawal components (2)+(3) and (4) respectively, as defined in the heading of Table 2. **Chart Source:** Ron D. Katznelson, FTC Presentation (2009).

Canadian shift to FTF harmed small entity inventors

Individual inventor share in U.S. and Canadian patent grants during Canada's transition to FTF



Source: Abrams, David S. and Wagner, R. Polk, "Poisoning the Next Apple? How the America Invents Act Harms Inventors" (2012). Scholarship at Penn Law. Paper 389. http://lsr.nellco.org/upenn_wps/389

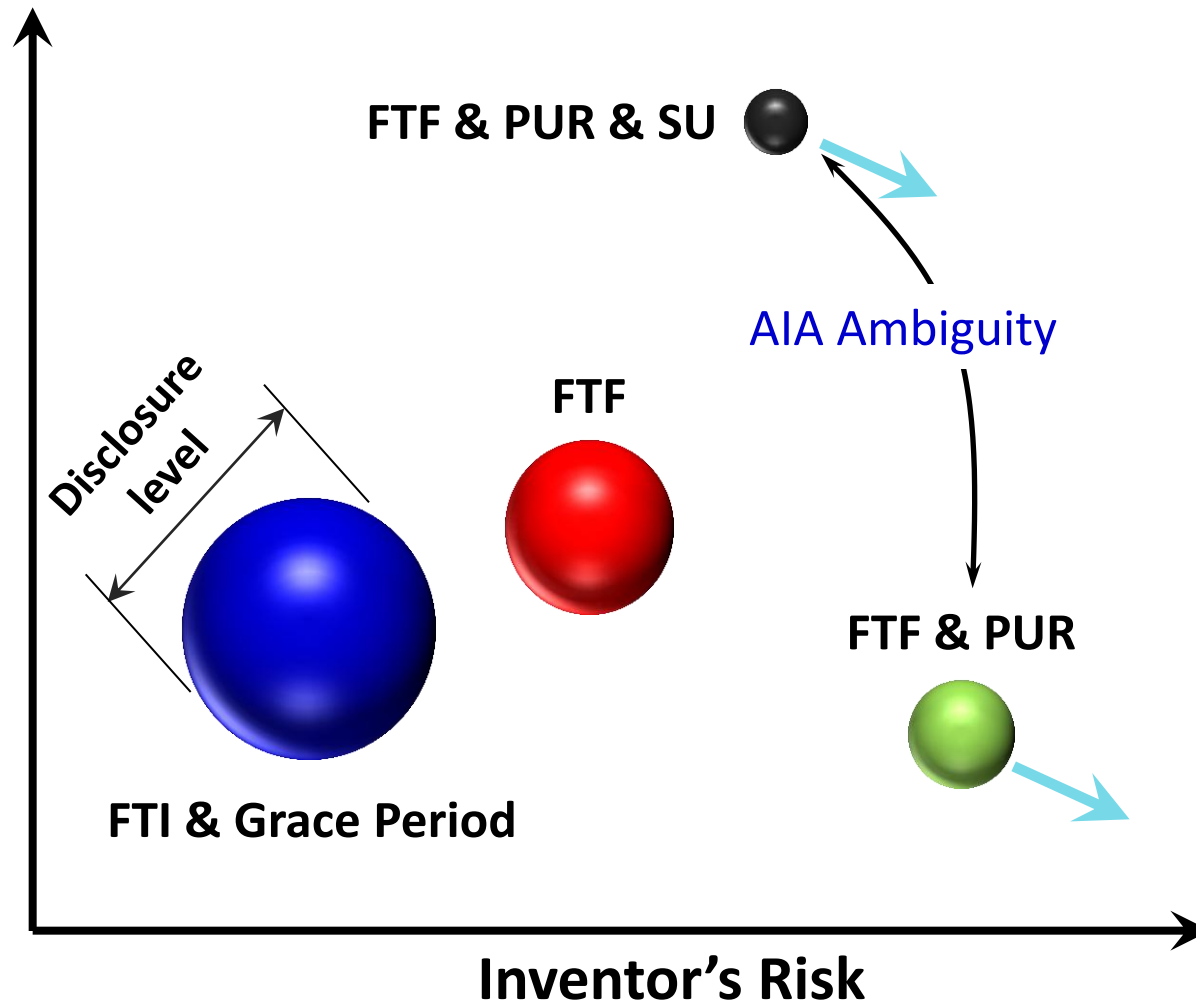
competing risks and interests in patent systems

- First-to-file and loss of grace period
 - Section 102 ambiguities
 - Repeal of *Pennock* (1829) and *Metallizing Engineering* (1946) – permitting patenting after long secret commercial use (SU) ??
- Prior User Rights (PUR)

Competing risks vs. disclosure levels in patent systems

(Loss of right to use one's own inventions or technologies or those "which had long before been enjoyed by the public")

User's Risk



Bubble size = Disclosure level

FTI = First To Invent

FTF = First To File

PUR = Prior User Rights

SU = Secret Use
never bars a patent

(Loss of priority, claim protection, exclusivity, or trade secrecy)

Does the AIA eliminate need for first- inventor determinations?

- **No.** Every derivation proceeding requires a determination of the first inventor¹
- **No.** Every Prior User defense requires a showing of an earlier use (therefore invention) than the patentee

1. *Price v. Symsek*, 988 F.2d 1187, 1190 (Fed. Cir. 1993) (Derivation is a question of fact. To prove derivation, the movant must establish **prior conception** of the claimed subject matter **and communication** of the conception to the adverse claimant.)

March 15, 2013 deadline

- Caution in claiming Pre-3/16/13 priority for Continuations and Divisions filed after 3/15/13
 - ❑ FTF becomes a reality on March 16, 2013, for all applications filed on or after that date **except** for applications where **all claims** are **substantively** entitled to an earlier priority date
 - ❑ **One** claim not awarded priority “poisons” the entire application chain forever, even if that claim is cancelled and even if continuation is filed without that claim
 - ❑ However, a claim that is unsupported at all has no “effective filing date” and thus does not trigger the transition of the application to FTF regime.
 - ❑ Avoid having to state under new Rule 78 that suggest reliance on priority dates later than March 15, 2013

March 15, 2013 deadline (cont'd)

➤ Pre-AIA priority for Continuations and Divisions requires extreme caution (cont'd)

- ❑ It is imperative that, where possible, all applications which are expected to be prosecuted to a conclusion should have an actual filing date not later than March 15, 2013.
- ❑ An “old law” date best assures that the application will fall under the current “first inventor” regime and otherwise avoid the broadened definition of prior art that is part of the FTF provisions.

Are you ready for the AIA?

- FTF myths and reality check

- Myth: *“Under FTF, inventors would not have to keep corroborated invention records.”*
 - ❑ If such records are discarded, what other evidence would you rely on in Derivation proceeding, Prior user defense, or other trade secret action? Trade secret misappropriation actions will be more probable than under current law
- Myth: *“FTF can be addressed effectively by ‘educating’ applicants to file Provisional Applications”*
 - ❑ A Provisional good enough to protect an invention is not cheap!
 - ❑ A Provisional with the ‘no-claims’ approach, or without attorney cost/time to meet non-provisional quality, is much less likely to support the desired claims and protect the invention
 - ❑ Applicants already use Provisionals extensively (150,000 Apps./Year)

Are you ready for the AIA? (Continued)

➤ Under AIA, you must institute new procedures for:

- ❑ **Periodic Reviews.** Bi-Weekly or Monthly engineering project reviews, identifying new ideas that should be filed as patent applications; modifying the employee incentive structures to achieve these goals.
- ❑ **Employee exit procedures.** Reviewing every departure of a key employee (perhaps to join a competitor), as it may necessitate an immediate diversion of resources to write and file patent applications on patentable subject matter developed by the departing employee; Consider extending the 2-weeks notice requirement.
- ❑ **Reassess protection under trade secret law.** PUR protection, FTF and PGR risks, may more often tip the scale of trade secret over patent protection; Do you have a person designated, and procedures in place for *identifying, documenting* and protecting trade secrets?

Are you ready for the AIA? (Continued)

➤ Application filing workflow:

- ❑ **Delays in filing.** Constant tension under FTF about pre-filing time allocation between inventor and attorney; Who is blamed for delay in filing? Will prior art searches be made and IDSs filed?
- ❑ **Shifting responsibility.** Expect attorneys to demand a lot more upfront written description by inventors; minimize time during which application is under attorney control before filing
- ❑ **Lower expectations.** Inevitable lower process yield - more applications must be filed per ultimate grant

Are you ready for the AIA? (Continued)

➤ Invention ownership vigilance

- ☐ **Ownership disputes.** Non inventors to whom the inventor has an obligation to assign may file substitute statement in lieu of the inventor's oath or declaration if inventor "refused to make the oath or declaration" or "cannot be found."
- ☐ **Derivation.** Request must be filed within 1 year of the date of first publication of an application for a claim that is substantially the same as the claimed invention.
- ☐ **Frequently check** the USPTO published applications online whether your employer or client filed an application on your behalf without your knowledge; or whether a published application or an issued patent claims subject matter derived from your invention

**How do investors'
considerations change under
the AIA?**

Investors require revised analysis before investing in startups relying on patent protection and....

- whose invention's development and success depends on experimentation under 'public use' scenarios; or
- whose pilot production of the invention requires subcontracting out ('on-sale').
- Due Diligence "boiler plates" must be revised
 - ❑ **Investor's Checklists** and responsive **Representations and Warranties** should address a broader list of risk elements.
 - ❑ Take into account and disclose all known relevant pre-filing activities and flag the new legal uncertainty risks of the AIA which might invalidate patents.
- Additional large investments may be required for experimentation or for in-house pilot production capabilities in order to secure full patent protection

**USPTO fee-setting – new fee
increases beyond the 15%
surcharge of October 2012**

“Building” an Operating Reserve

PTO's raising fees beyond its costs to accumulate unobligated cash reserves is impermissible

- Congress provided in the AIA operating reserve increases that result from ***cost-based*** fee revenues in excess of filing projections, to be used later during times of revenue shortfalls – a revenue “smoothing” mechanism.
- Any reserve must be appropriated by Congress from PTO ***unearned revenue*** account.
- In contrast and contrary to plain statutory language, the PTO attempts to “camouflage” charges ***higher-than-costs*** in every fee dollar it intends to collect from users in order to “build” arbitrary levels of unobligated cash reserves.

PTO's raising fees beyond its costs to accumulate unobligated cash reserves (cont'd)

- The PTO intends to hold unobligated funds worth 25% of its annual revenue as a “cushion” – not for working off the backlog.
- In its final rule, the PTO (under its purported “discretion”) increased the time to “build the reserve” – reducing the annual reserve charges – a mere smoke screen for its unauthorized action.
- If this is allowed, the PTO would be able to set fees ***at any arbitrary level*** of its choosing, regardless of its aggregate costs.
- ***This will harm small startups and small businesses the most.***

Recovery of aggregate costs is the *only* purpose of the PTO's fee setting authority

➤ AIA § 10(a) - “FEE SETTING

(1) IN GENERAL.—The Director may set or adjust by rule any fee established, authorized, or charged under title 35, United States Code, or the Trademark Act of 1946 (15 U.S.C. 1051 et seq.), for any services performed by or materials furnished by, the Office, subject to paragraph (2).

(2) FEES TO RECOVER COSTS.—Fees may be set or adjusted under paragraph (1) *only* to recover the aggregate estimated costs to the Office for *processing, activities, services, and materials relating to patents* (in the case of patent fees) and trademarks (in the case of trademark fees), including *administrative costs of the Office with respect to such patent* or trademark fees (as the case may be).”

Arbitrary level of cash accumulation for a “reserve” is not among the statutory enumerated “costs”

PTO proposed to charge higher fees beyond its operating costs in order to “build” \$0.76 billion in reserve

Item (Dollars in millions) (a)	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Planned "Operating Requirements"			\$2,549	\$2,702	\$2,809	\$2,846	\$2,945
Less Other Income			-18	-18	-18	-18	-18
Net "Operating Requirements"	1,948	2,248	2,531	2,684	2,791	2,828	2,927
Deposit in Operating Reserve	-48	46	73	200	143	125	95
Total Aggregate "Cost Estimate"			2,604	2,884	2,934	2,953	3,022
Aggregate Revenue Estimate			2,604	2,884	2,934	2,953	3,022
Target Operating Reserve			637	676	702	712	736
Operating Reserve Ending Balance	74	121	194	394	537	662	757
Utility, plant, and reissue (UPR)	(c)		(b)				
Applications filed	506,924	533,308	565,300	599,200	632,200	666,900	700,300
Production Units (PU)	508,549	548,051	620,600	671,900	694,200	645,200	656,200
End of Year Backlog	690,967	633,812	529,100	421,600	329,500	328,400	358,000
Examination Capacity (Year-end)	6,690	7,831	8,700	8,600	8,300	8,300	8,200
Ratios:	(c)						
Average Examination capacity in FY	6,409	7,261	8,266	8,650	8,450	8,300	8,250
PU per Examiner	79.3	75.5	75.1	77.7	82.2	77.7	79.5
"Operating requirement" per PU	\$3,594	\$3,617	\$4,078	\$3,995	\$4,020	\$4,383	\$4,461
Aggregate "cost estimate" per PU			\$4,196	\$4,292	\$4,226	\$4,577	\$4,605
"Operating requirement" per examiner			\$306,213	\$310,289	\$330,296	\$340,723	\$354,788
Aggregate "cost estimate" per examiner			\$315,044	\$333,410	\$347,219	\$355,783	\$366,303

(a) - Table 3, NPRM at 55035; (b) - Table 2, NPRM at 55034; (c) USPTO Annual Report FY 2012, "Op. Req.)/PU from p. 19.

The PTO ignores the specific mechanism provided in the AIA for establishing the operating reserve

➤ AIA: § 22 codified in 35 U.S.C. § 42(c)(2):

“There is established in the Treasury a Patent and Trademark Fee *Reserve Fund*. If fee collections by the Patent and Trademark Office for a fiscal year exceed the amount appropriated to the Office for that fiscal year, fees collected in excess of the appropriated amount shall be deposited in the Patent and Trademark Fee Reserve Fund. To the extent and in the amounts provided in appropriations Acts, amounts in the Fund shall be made available until expended only for obligation and expenditure by the Office in accordance with paragraph (3).”

Scope of USPTO fee-setting authority

➤ The operative text of the AIA is § 10(a) (uncodified):

(a) FEE SETTING.—

(1) IN GENERAL.—The Director may set or adjust by rule any fee established, authorized, or charged under title 35, United States Code, or the Trademark Act of 1946 (15 U.S.C. 1051 et seq.), for any services performed by or materials furnished by, the Office, subject to paragraph (2).

(2) FEES TO RECOVER COSTS.—Fees may be set or adjusted under paragraph (1) **only** to recover the **aggregate** estimated costs to the Office for **processing, activities, services, and materials relating to patents** (in the case of patent fees) and trademarks (in the case of trademark fees), including **administrative costs** of the Office with respect to such patent or trademark fees (as the case may be).

➤ AIA § 11 also codified § 41(d)(2)(A) for other fees

“(A) IN GENERAL.—The Director shall establish *fees for all other* processing, services, or materials relating to patents *not specified in this section* to recover the estimated average cost to the Office *of such* processing, services, or materials...”

USPTO's interpretation of its authority

- USPTO General Counsel sent an opinion to PPAC explaining that “Section 10 thus permits any individual patent fee to be set or adjusted so as ***to encourage or discourage any particular service***, so long as the aggregate revenues for all patent fees match the total costs of the Patent operation.” (Opinion of Feb. 10, 2012, at 4)
- USPTO's NPRM “*Setting and Adjusting Patent Fees*,” 77 Fed. Reg. 55028 (Sept. 6, 2012); Final rules at 78 Fed. Reg. 4212 (January 18, 2013).
- USPTO states that some fees set for “facilitating the effective administration of the patent system” – a euphemism for fees set to suppress certain filings

USPTO's disproportionate increases in upfront fees to suppress certain filing activities

“help the Office to effectively administer the patent system by encouraging applicants to engage in certain activities.”

--NPRM, 77 *Fed. Reg.* 55028, 55054 (Sept. 6, 2012).

Fee increases that “discourage particular activities”

- Each independent claim in excess of 3: **+68%**
- Each claim in excess of 20 total claims: **+33%**
- Multiple Dependent Claim: **+73%**
- First Request for Continued Examination (RCE): **+29%**
- Second or subsequent RCE: **+83%**
- For Appeal: **+126%**

Upfront average fees are increased disproportionately

Final rule average fee costs for essential patenting activities (Large Entity)

Fee Item	Average incidence per unit	Present fees set by AIA		USPTO Proposed fees (NPRM)		Large-Entity cost increase over that enacted in AIA
		Large-Entity fee	Large-Entity average cost	Large-Entity fee	Large-Entity average cost	
	u	f_1	$f_1 \cdot u$	f_2	$f_2 \cdot u$	
For filing, search & examination	1	\$1,250	\$1,250	\$1,600	\$1,600	28%
For each independent claim in excess of 3	0.50 <i>a</i>	\$250	\$125	\$420	\$210	68%
For each claim in excess of 20 total claims	3.26 <i>a</i>	\$60	\$195	\$80	\$261	33%
For a Request for Continued Examination	0.55 <i>b</i>	\$930	\$509	\$1,350 <i>g</i>	\$739	45%
For an Appeal:						
Filing Notice of Appeal	0.120 <i>c</i>	\$620	\$74	\$800	\$96	
Filing an Appeal Brief	0.078 <i>c</i>	\$620	\$48			
Filing an Appeal	0.048 <i>d</i>			\$2,000	\$96	
Total for Appeals			\$122		\$192	57%
Average Front-End Application fees			\$2,202		\$3,002	36%
Issue fee	1	\$1,740	\$1,740	\$960	\$960	-45%
Maintenance Fees:						
At 3.5 years	0.99 <i>e</i>	\$1,130	\$1,123	\$1,600	\$1,590	42%
At 7.5 years	0.71 <i>e</i>	\$2,850	\$2,029	\$3,600	\$2,563	26%
At 11.5 years	0.50 <i>e</i>	\$4,730	\$2,365	\$7,400	\$3,700	56%
Average Back-End Patent fees			\$7,257		\$8,814	21%
Total Average patent fees			\$9,459		\$11,815	25%

a. FY 2010 Fee Report, Appendix 1 to USPTO FY 2012 President's Budget, p. 139 ("Fee Report"). Number of excess claims is the ratio between the total fee collection for each fee category and the fee set for that category. Incidence is the number of Large-entity excess claims normalized by the number of all Large-entity UPR applications in FY 2010.

b. Fee Report, p. 140; Number of RCE filings is the ratio between the total fee collection for each fee category and the fee set for that category. Incidence is Large-entity RCE filings normalized by the number of all Large-entity UPR applications in FY 2010.

c. Fee Report p. 141 and USPTO Response to FOIA Request No. F-12-00105. Normalized by number of Large-Entity UPR applications in FY 2010.

d. FY 2010 appeal filings at BPAI at <http://www.uspto.gov/ip/boards/bpai/stats/receipts/index.jsp>. Normalized by Large-Entity share of appeals (note c) and the total number of UPR applications in FY 2010.

e. USPTO Annual Report FY 2011, p.63. FY 2010 renewal rates.

g. RCE fee is average of first (\$1200) and second or subsequent (\$1700) RCE fees, weighted per usage rates of 70% and 30% respectively as published at 77 FR 55043.

Upfront average fees are increased disproportionately

Final Rule average fee costs for essential patenting activities (Small and Micro Entities)

Fee Item	Average incidence per unit	Present fees set by AIA		USPTO Proposed fees (NPRM)			Small-Entity cost increase over that enacted in AIA	Micro-Entity cost increment over Small Entity cost enacted in AIA
		Small Entity fee	Small Entity average cost	Small Entity fee	Small Entity average cost	Micro Entity average cost		
		f_1	$f_1 \cdot u$	f_2	$f_2 \cdot u$	$0.5 f_2 \cdot u$		
For filing, search & examination	1	\$625	\$625	\$800	\$800	\$400	28%	-36%
For each independent claim in excess of 3	0.54 <i>a</i>	\$125	\$68	\$210	\$114	\$57	68%	-16%
For each claim in excess of 20 total claims	4.35 <i>a</i>	\$30	\$131	\$40	\$174	\$87	33%	-33%
For a Request for Continued Examination	0.30 <i>b</i>	\$465	\$139	\$675 <i>g</i>	\$202	\$101	45%	-27%
For an Appeal:								
Filing Notice of Appeal	0.072 <i>c</i>	\$310	\$22	\$400	\$29	\$14		
Filing an Appeal Brief	0.047 <i>c</i>	\$310	\$15					
Filing an Appeal	0.029 <i>d</i>			\$1,000	\$29	\$15		
Total for Appeals			\$37	\$1,400	\$58	\$29	57%	-21.5%
Average Front-End Application fees			\$1,000		\$1,349	\$674	35%	-33%
Issue fee	1	\$870	\$870	\$480	\$480	\$240	-45%	-72%
Maintenance Fees:								
At 3.5 years	0.99 <i>e</i>	\$565	\$562	\$800	\$795	\$398	42%	-29%
At 7.5 years	0.71 <i>e</i>	\$1,425	\$1,015	\$1,800	\$1,282	\$641	26%	-37%
At 11.5 years	0.50 <i>e</i>	\$2,365	\$1,183	\$3,700	\$1,850	\$925	56%	-22%
Average Back-End Patent fees			\$3,629		\$4,407	\$2,203	21%	-39%
Total Average patent fees			\$4,629		\$5,755	\$2,878	24%	-38%

a. FY 2010 Fee Report, Appendix 1 to USPTO FY 2012 President's Budget, p. 139 ("Fee Report"). Number of excess claims is the ratio between the total fee collection for each fee category and the fee set for that category. Incidence is the number of small-entity excess claims normalized by the number of all small-entity UPR applications in FY 2010.

b. Fee Report, p. 139. Number of RCE filings is the ratio between the total fee collection for each fee category and the fee set for that category. Incidence is small-entity RCE filings normalized by the number of all small-entity UPR applications in FY 2010.

c. Fee Report, p. 141 and USPTO Response to FOIA Request No. F-12-00105. Normalized by number of Small-Entity UPR applications in FY 2010.

d. FY 2010 appeal filings at BPAI at <http://www.uspto.gov/ip/boards/bpai/stats/receipts/index.jsp>. Normalized by Small-Entity share of appeals (note c) and the total number of UPR applications in FY 2010.

e. USPTO Annual Report FY 2011, p.63. FY 2010 renewal rates.

g. RCE fee is average of first (\$600) and second or subsequent (\$850) RCE fees, weighted per usage rates of 70% and 30% respectively as published at 77 FR 55043.

Micro-entity defined

- Qualifies as a small entity;
- Has not been named as an inventor on more than 4 previously filed patent applications (excluding applications assigned to previous employers);
- Did not have a gross income exceeding 3 times the median household income (~ \$148,000) in the calendar year preceding the calendar year in which the applicable fees is paid; and
- Has not assigned, granted, conveyed a license or other ownership interest (and is not under an obligation to do so) in the subject application to an entity that exceeds the gross income limit

The illusory micro-entity status

- PTO estimates that 5.4% of applications (excluding from universities) **could** qualify for micro entity status.
- But this significantly overestimates the actual number because it does not account for the large number of these applicants that license or assign their applications - disqualifying them as micro entities.
- Most startups and small business applicants will not qualify as micro entities because their gross annual income may exceed three times the median household income (~ \$148,000).
- The additional 50% micro entity discount will apply only under the higher fee structure, effective March 19, 2013.

The Constitution vests taxing authority in Congress – not in the Executive. Agency setting fees to “encourage or discourage any particular service” is impermissible

- Using fees to “encourage or discourage a particular activity” is a “tax” that requires an explicit delegation from Congress, a delegation that the AIA did not make.
- *Seafarers International Union v. U.S. Coast Guard*, 81 F.3d 179, 183 (D.C. Cir. 1996): “Such policy decisions, whereby an agency could, for example, adjust assessments **to encourage or discourage a particular activity**, would, according to the [Supreme] Court, ‘carr[y] an agency far from its customary orbit’ and infringe on Congress's exclusive power to levy taxes.” Citing *NCTA*, 415 U.S. 336, 341 (1974) (emphasis added.)

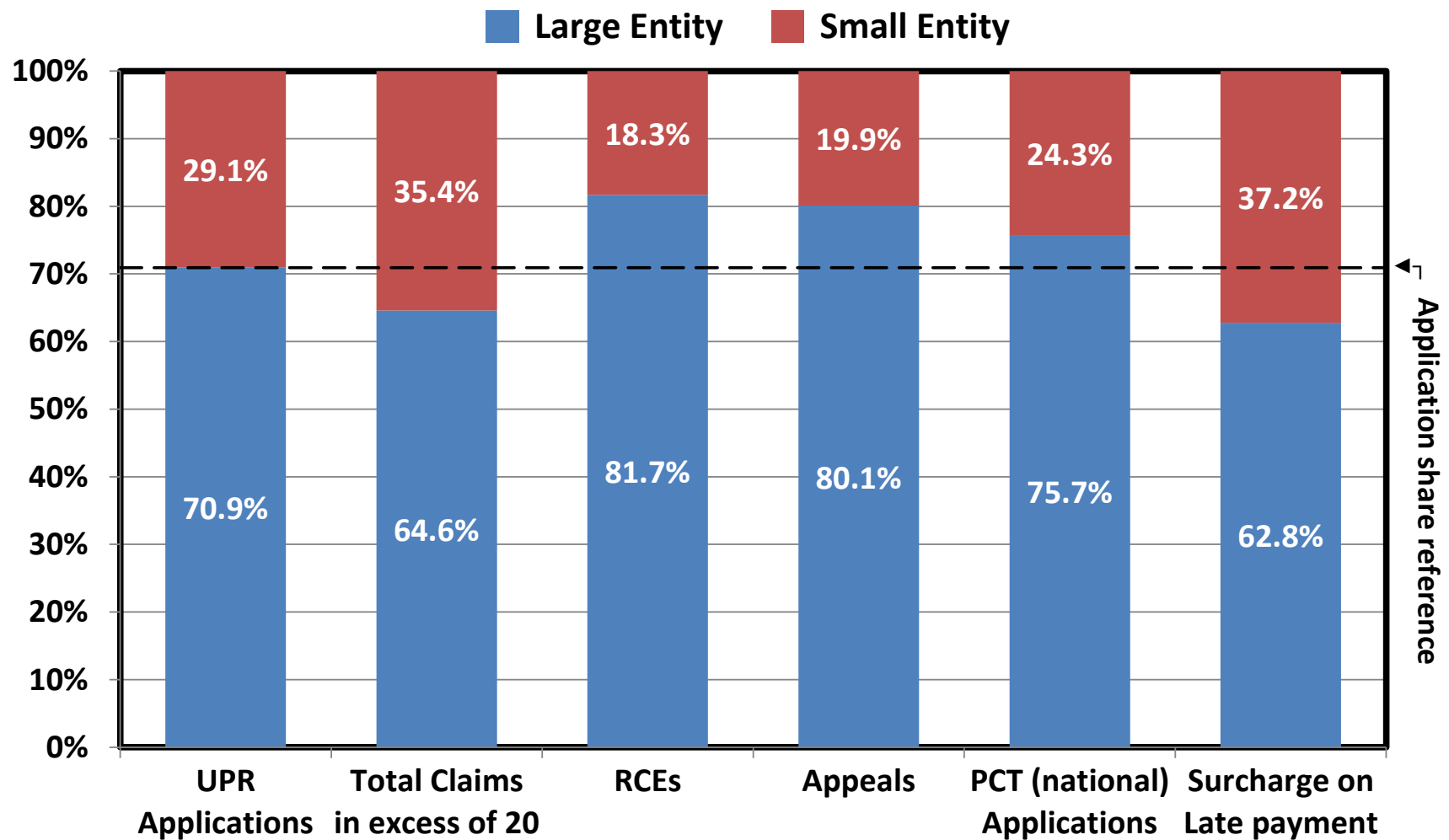
Congress' reasons for maintaining low front-end" fees

- Since 1980, Congress authorized the PTO to collect only a fraction of the patent fees at the “front-end” (at the application stage). Low cost upfront fees
 - ❑ enable applicants to defer substantial patenting costs until they achieve commercial success – supports startups.
 - ❑ facilitate low cost opportunity for discovering inventions that are worth investing in. Casts a wide “prospecting net” on many more innovations than would otherwise come to light.
 - ❑ foster more disclosure – even from ultimately unsuccessful applicants.
 - ❑ Significant “back-end” maintenance fees provide stronger incentives for early termination of useless patents – reduces unnecessary barriers for others

PTO failed to consider disproportionate effect on small entities – many startups face solvency challenges.

Lower share in costly items (appeals & RCEs), and paying higher surcharges on late payments

Filing share at PTO by entity size



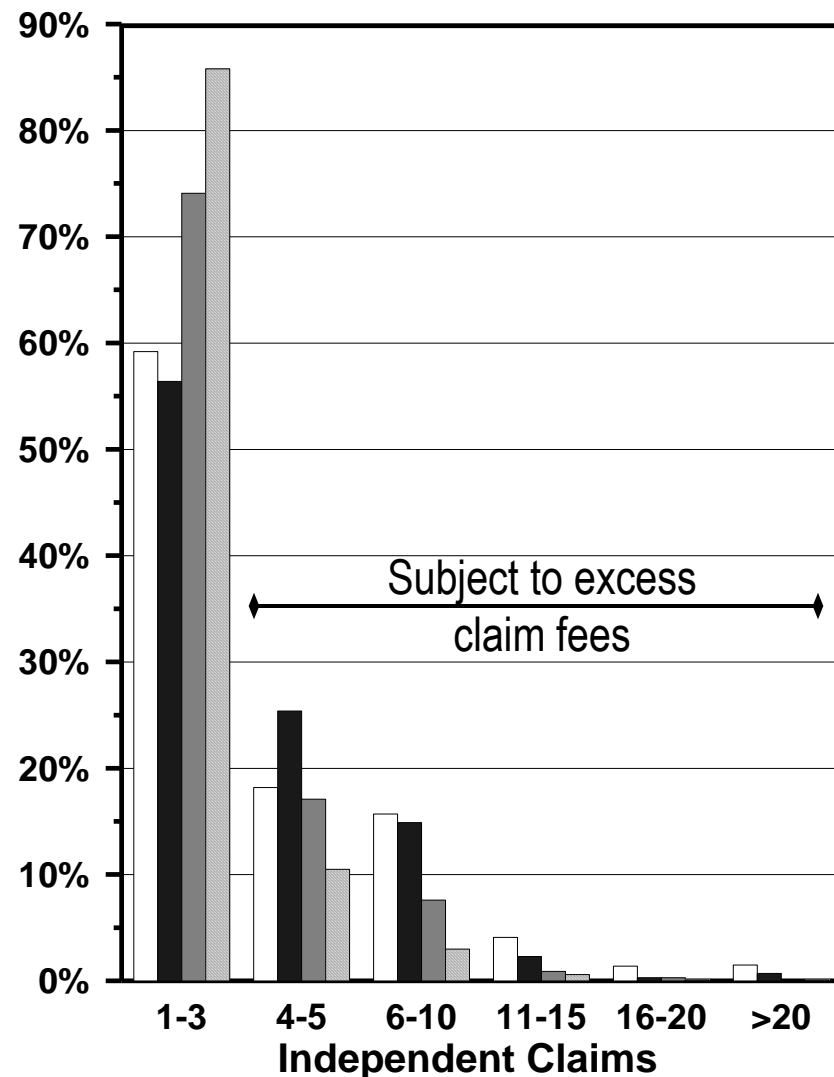
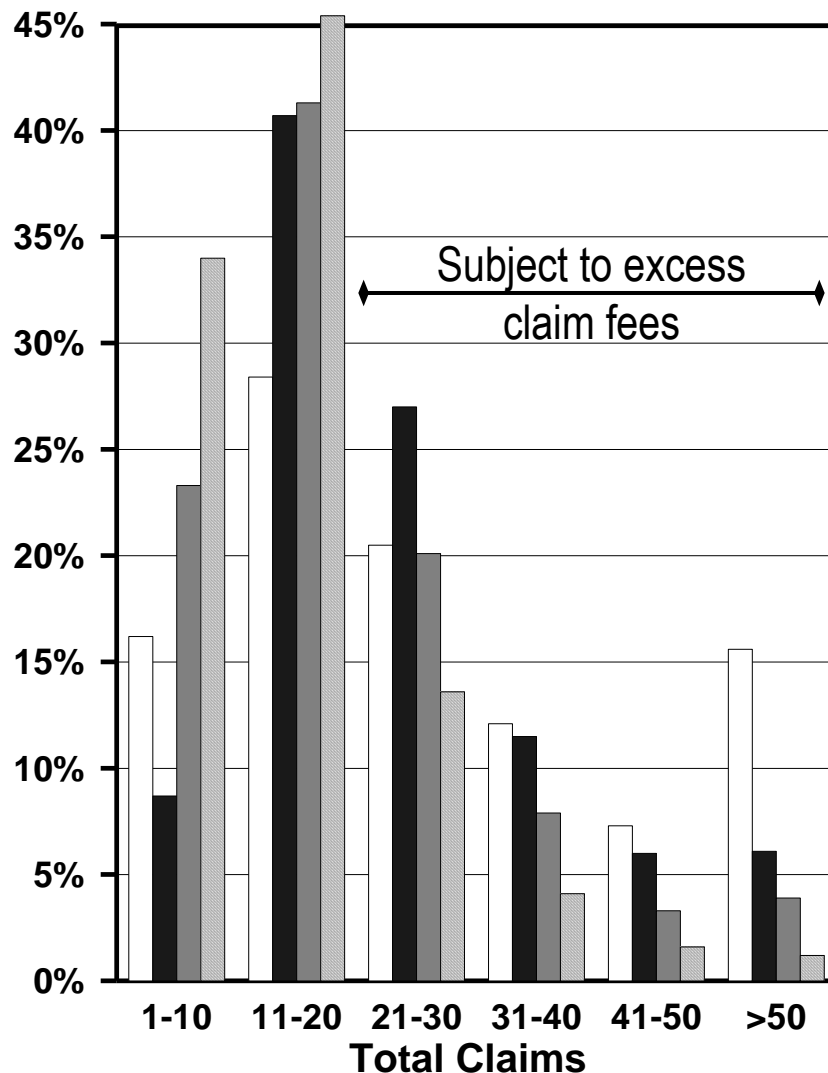
Source: FY 2010 Fee Report, Appendix 1 to USPTO FY 2012 President's Budget, pp. 138-144. Number of filings is the ratio between the total fee collection for each fee category and the fee set for that category.

No basis for disproportionately penalizing certain industries - examiners not given extra “claims” time

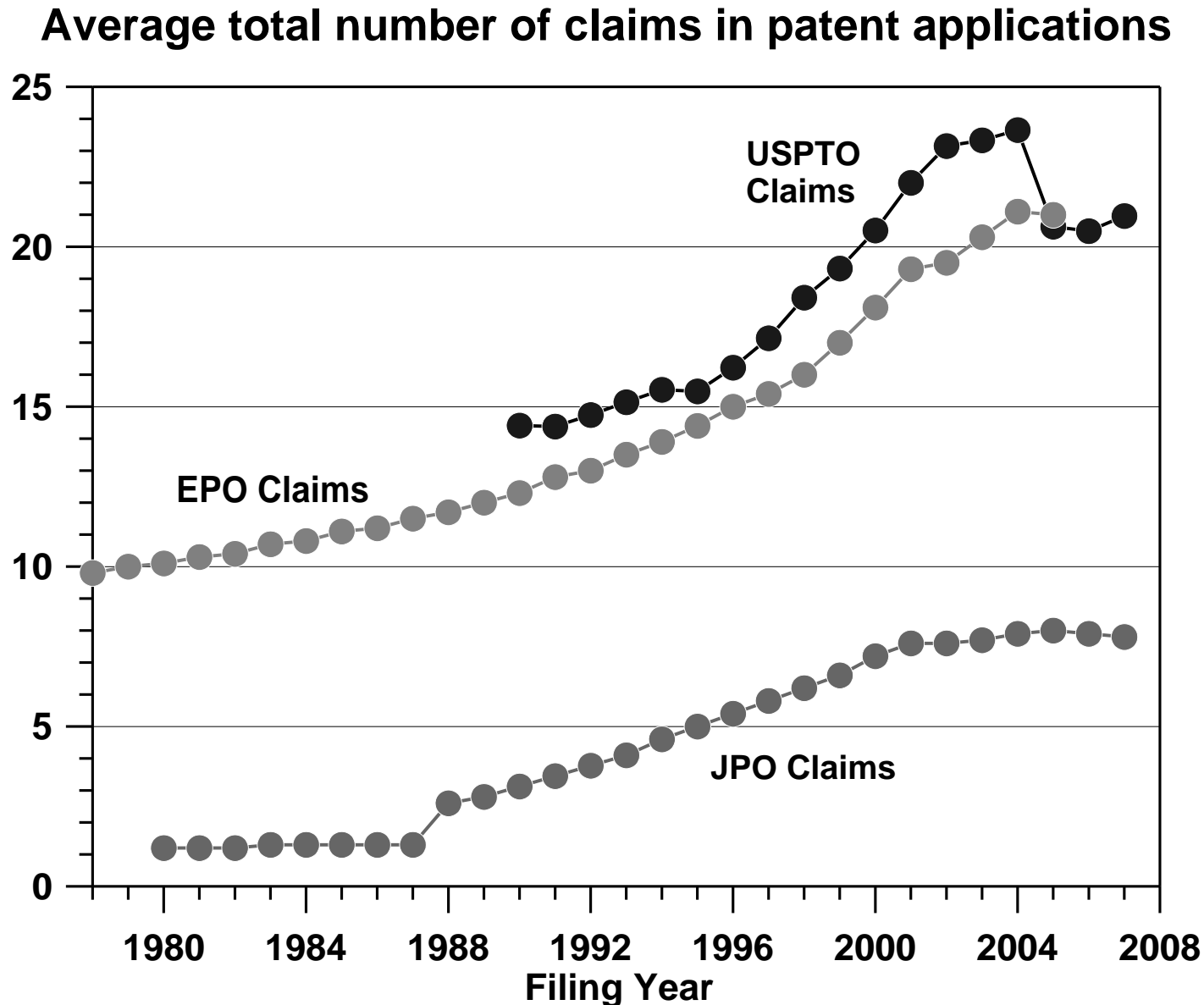
Claim distribution in applications at selected USPTO technology workgroups

- 1640 - Immunology, receptor/ligands, cytokines, recombinant hormones, and molecular biology thereof
- 2140 - Computer networks
- 2820 - Semiconductors and electrical circuits
- 3680 - Machine elements and power transmissions

Source: *Tafas v. Dudas*,
Administrative Record A03661, FY 05 data.

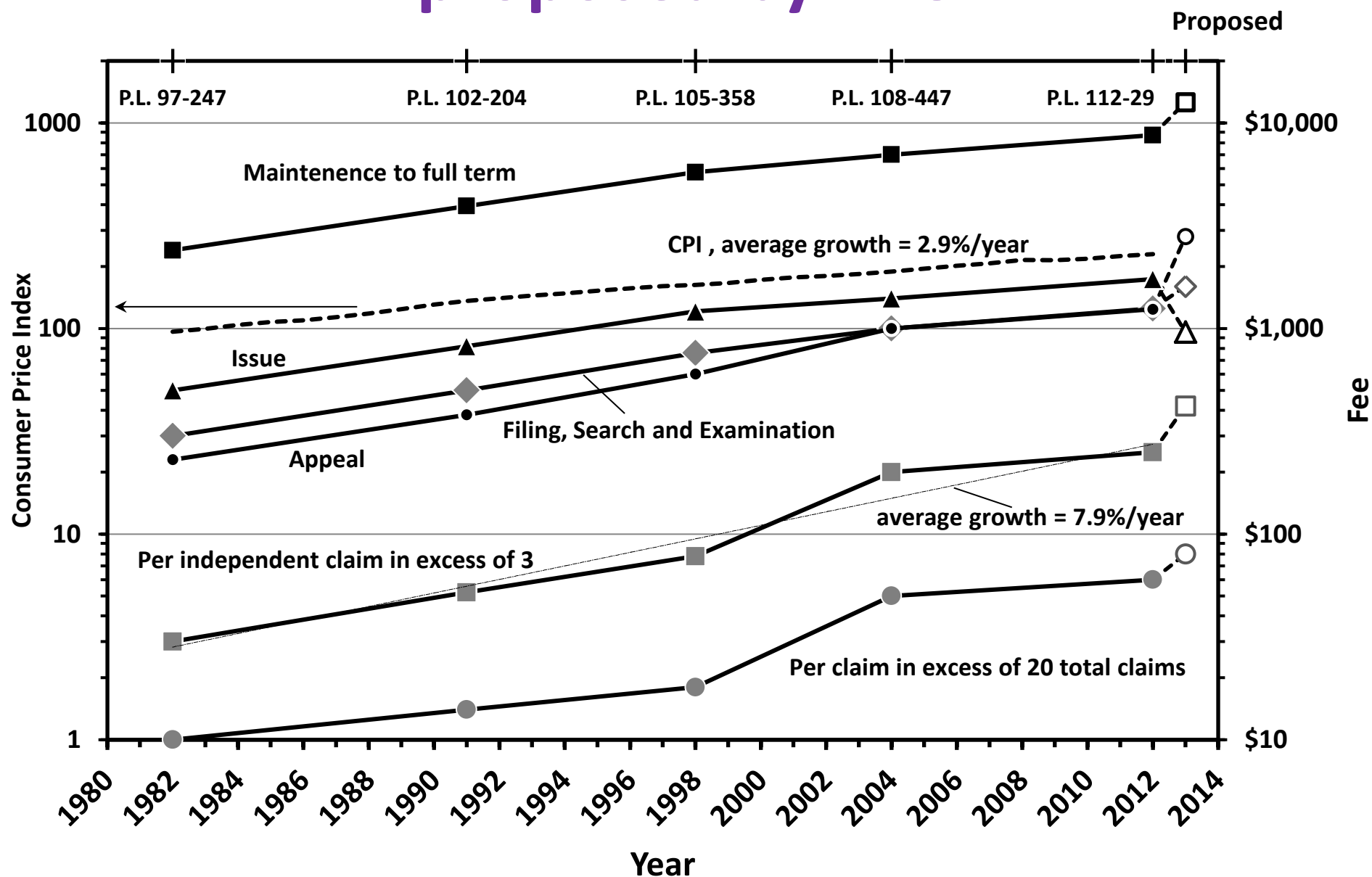


USPTO has no basis for suppressing claiming practices



Source: Ron D. Katznelson, "My 2010 wishes for the U.S. Patent Examiner," Figure 4, (Jan. 8, 2010) available at <http://j.mp/RDK-2010-wishes>.

Patent fees enacted by Congress and those proposed by PTO



Optimal and legally sound fee structure

- Set fees for items governed by § 41(d)(2) based on average cost
- Set all fees governed by § 41(a) through § 41 (d)(1) that Congress' ***established as a policy matter***, by increasing fees to match the aggregate costs while maintaining their relative magnitudes so as to preserve the salient congressional patent policy goals.

Further information:

Ron D. Katznelson, “The America Invents Act May be Constitutionally Infirm if It Repeals the Bar Against Patenting After Secret Commercial Use,” *Engage*, Vol. 13(3), pp. 86-91, (October 2012), at <http://bitly.com/Absolute-Noveltty>.

Ron D. Katznelson, “The U.S. Patent Office’s Proposed Fees Under the America Invents Act—Part I: The Scope of the Office’s Fee-Setting Authority,” 85 *Patent, Trademark & Copyright Journal*, 206, (Dec. 7, 2012), at <http://bit.ly/PTO-fees-per-AIA-PtI> .

Thank You

Any Questions?

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