



April 28, 2015

Heidi Jacobus
Robert Schmidt
Co-Chairmen

Chairman David Vitter
Committee on Small Business & Entrepreneurship
United States Senate
Washington, DC 20510-6350

Jere Glover
Executive Director

Subject: Response to SBE Questions

Larry Nannis
Treasurer

References: 1. Vitter to Schmidt letter dated April 14, 2015
2. Senate SBE Committee Hearing of March 19, 2015

Kevin Burns
Greg Zacharias
New England
Regional Chairs

Dear Chairman Vitter:

Matt Oristano
Joseph Schwartz
Mid-Atlantic
Regional Chair

I thank you for allowing me to testify, and for this opportunity to provide further information on my testimony. Here are the Small Business Technology Council's responses to your questions.

Ash Thakker
Southeast
Regional Chair

1. Mr. Schmidt, Some small inventors have raised the issue of the "integrity loophole" caused by a court decision denying judicial relief to patent holders whose patents have been subject to fraudulent or sham petitions for reexamination at the PTO. Do you agree this is a problem and would you support Congress restoring a judicial remedy?

Mary Delahunty
Southwest
Regional Chair

Yes. This is every bit as important as solving the "troll problem." For the last several years, Congress and the courts have chosen to focus on weakening patents to try and eliminate "trolls." However, as the last 220+ years have proven, having a strong patent system has allowed America to develop an economy like no other. Recently, a number of court decisions and the America Invents Act have weakened patents, and our economy is suffering because of them. The purpose of any pending patent legislation should be to strengthen patents, not weaken them. The "integrity loophole" is one such example of weakened patents.

Russ Farmer
Mountain
Regional Chair

Michael Browne
Pacific
Regional Chair

The court decision which opened up the problem is *Lockwood v. Sheppard, Mullin, Richter & Hampton, LLP*, 2009 WL 9419499 (C.D. Cal. Nov. 24, 2009) (holding plaintiff's state law claims premised on fraudulent and "sham" reexamination proceedings were preempted by federal law), *aff'd*, 403 Fed. App'x. 508 (Fed. Cir. 2010), *reh'g and reh'g en banc denied* (Fed. Cir. 2011), *cert. denied*, 132 S. Ct. 97 (2011). The court ruled that if a patent owner is victimized by fraud or deliberate abuse of post grant reviews they no longer had the right to sue for damages, but must go to the PTO for redress. However, the PTO cannot award damages when it finds petitions to have been filed fraudulently.

Roy Keller
State Liaison

In his response to former Sen. Bayh after the ruling, PTO Director David Kappos confirmed that the PTO has no authority to award compensation to patent owners who are harmed by such actions. Subsequently, the PTO has made it clear that they do not seek such authority, which is the province of the courts. Thus, we have an "integrity loophole" allowing unscrupulous parties from around the world to willfully and knowingly violate their oath to the PTO that their filings are being made in good faith, knowing that they cannot be held accountable for the severe harm they inflict. Even if the patent is eventually upheld, there is a cloud over the patent during the review, which can prevent the owner from securing venture funding or licensing the invention. Further, defending the patent takes about 2 years and costs

Greg Zacharias
DOD Committee
Chair

Paul Donovan
Michael Squillante
NIH Committee
Co-Chairs

Ash Thakker
Phase III Committee
Chair

Russ Farmer
DCAA Committee
Chair



about \$300,000 (not counting company time) which is time and money that small businesses-- particularly start-ups-- don't have. A 2012 empirical study published in the [*Columbia Science and Technology Law Review*](#)¹ found that **one in four respondent practitioners reported some form of fraud or misconduct on the part of those challenging patents in reexamination.**

We are now seeing a new variation of abuse of post grant reviews as hedge funds are publicizing their challenges in the media to important drug patents to profit when they short the company's stock. Rachel King, a witness² at the referenced Senate Small Business hearing talked about this growing problem. For affected companies, there is no way they can ever recover the losses (which were about \$150M to Acorda). Specifically we agree with others who suggest that liability attaches whenever the filer of an IPR (or CBM, PGR, or reexam) **knowingly & willfully acts in a manner contrary to 37 C.F.R. 11.18 -- the PTO's own long-standing disciplinary rule, modeled on federal Rule 11.** Proposed language would remedy the hedge fund abuse of IPR's by giving the targeted companies a federal cause of action for damages. Among other things, *this PTO rule requires that a petition for IPR (like any other paper filed before the PTO) "is not being presented for any improper purpose, such as to harass someone or to cause unnecessary delay or needless increase in the cost of any proceeding before the Office."*

Obviously, filing an IPR petition to drive down a company's stock price is such an "improper purpose" and would open hedge funds to liability under our proposed language. At least one prominent post-grant practitioner has agreed that the hedge fund abuse of IPR's is plainly an "improper use of the proceeding" but, as he points out [here](#),³ the most the PTO is currently empowered to do is award attorney's fees -- without the proposed remedy, the targeted companies will not be able to recover the damage done to their stock price and to their business as a result.

Former Federal Circuit Chief Judge Paul Michel has expressed his concerns⁴ on the issue. It has been proposed by The Alliance to Prevent Fraudulent Attacks on Patents⁵ that by restoring the patent owner's historic right to sue for damages the loophole will be closed. The SBTC, and its parent organization, the NSBA, were among the first to endorse these efforts. The importance of closing the integrity loophole has previously been mentioned in NSBA's "Patent Reform Newsletter."⁶

Witness David Winwood from LSU said in reply to Sen. Vitter's question:

While there may be areas of disagreement regarding patent reform, one area where everyone should agree is that we cannot tolerate fraud or deliberate abuse of patent reexaminations or post grant reviews. Patent applicants are held to a standard of honesty in dealing with the PTO or they risk losing their patent rights, so third-party requesters should be held to a similar standard. Currently the patent owner must be truthful, but the third-party requester can commit fraud with no financial penalty due to a recent court decision. So the door is wide open for unscrupulous parties around the world to abuse our system knowing that it will take the patent owner years of effort and hundreds of thousands of dollars to defend their patent in the Patent and Trademark Office. This is time and money that small companies simply cannot afford and such challenges can deny them access to desperately needed venture funding or entry into the marketplace. We should restore the traditional right of patent owners to sue for damages in such cases. By restoring this historic right we will effectively close this integrity loophole from being used against the small companies which lead in the creation of U.S. products, jobs and even new industries.



2. In your testimony, you indicated that many small businesses do not support legislation such as the current H.R. 9, and other similar former Senate bill s. Please discuss the details of why you cannot support that legislation. Specifically, why are the following provisions problematic for small business and independent inventors: Fee Shifting, Bonding, Joinder, Covered Business Methods (CBM), Elimination of Post Grant Review Estoppel, Disclosure of All Plaintiff Interested Parties, Enhanced Pleadings and Limiting Discovery, Customer Stays, and Patent Term Adjustment (PTA)?

In addition to SBTC's [prior](#) documents opposing H.R. 9,⁷ below are the comments addressing the listed questions about H.R.9 (and some other past Senate and House bills). The SBA Office of Advocacy has also expressed similar [concerns](#).⁸

- **Loser Pays:** American laws do not apply “loser pays” provisions to consumers, corporations, protected groups, or any other class of private litigants. This provision singles out litigants with limited resources; it would create substantial chilling effects on small entities’ (patentees or alleged infringers) ability to enforce their legal rights. The prohibitive risks of loss would prevent patentees with legitimate claims from asserting their patents and would likewise force small business innovators wrongly accused of patent infringement to settle without having their day in court. Why should patent litigants with limited means be singled out as the only class that should bear this burden? Small business inventors will be deterred from exercising their rights, resulting in loss of jobs. More perniciously, the smaller firms will be further deterred from investing to develop such rights, as they will need a \$5-10 million legal war-chest before they try to enforce any patents. The large multi-national companies know that smaller companies cannot afford to pay the larger business’s legal costs if they lose, and so may act assuming small businesses will not take the chance. We have already seen large companies ignoring small companies’ patents. Officers of some of America’s largest corporations tell small companies they don’t care about small company patents, even though they may be infringing. Thus, “loser pays” will further allow large “Patent Ogres” to infringe with impunity.
- **Bonding or “Pay to Play”:** This provision has been part of a number of House and Senate bills in the past. (E.g.: last Congresses [S. 1612](#) by Sen. Hatch.⁹) They required the inventor plaintiff to post a bond or certify that they can pay the alleged infringers legal fees should they not prevail. This puts enforcing a patent beyond the financial capability of all but the largest and wealthiest of small businesses. Pay to Play would result in almost all of the over 5,000 active SBIR companies being unable to enforce their patents. This is probably the most heinous provision of proposed patent bills. The problem is that the patent(s) is the major asset of most small companies. If it is declared invalid, the value of the company plummets. So even if the entrepreneur wants to pledge his entire company for the bond, it will likely be insufficient. Since the entrepreneur has likely already pledged his house for a credit line, this will mean that posting a bond will be impossible for almost all small companies. Thus, Congress will be telling most Americans, they are “just too poor to invent or enforce their patents.”
- **Fee Shifting “Joinder”:** makes investors and others personally liable for the legal fees of the alleged infringer if the small business plaintiff does not prevail (possibly on each and

every claim). This provision eliminates a basic tenant of corporate law, protecting investors from personal liability, thereby making patents a “toxic” asset. This provision is antagonistic to investment in new technologies. Here, the problem becomes that almost no one will want to invest in new technology companies. It is concerning that angel groups may collapse due to fears of the liability of enforcing patents. The [National Venture Capital Association](#)¹⁰ has expressed its concerns about this provision a number of times.^{11,12} Note also that the joinder provision in HR 9 is asymmetric – it only applies to patentees. No similar provision is provided for recovering fees and costs from Interested Parties of non-prevailing alleged infringers who cannot pay. Thus, HR 9 discourages investments in patentees and incentivizes investments in infringers.

- **Covered Business Methods (CBM):** provisions were removed from HR3309, but were still in some prior Senate bills (e.g.: [S.866](#) last year by Sen. Schumer¹³). The AIA limited CBMs to a “financial product or service.” It allowed post-grant review proceedings, to be made at any time until September 16, 2020, clouding their title for eight years. However, some legislation proposed to make the transitional proceedings of Section 18 permanent and expand the definition of “covered business method patent” to include data processing patents used in any “enterprise, product, or service.” This means that any party sued for or charged with infringement *can always* challenge an extremely broad range of patents at the PTO. The request for a proceeding need not be related to financial products or services and can be submitted any time over the life of the patent. This would have far-reaching implications, because data processing is integral to everything from cutting-edge cancer therapies to safety systems that allow cars to respond to road conditions in real time to prevent crashes. Subjecting data processing patents to the CBM program would thus create uncertainty and risk that discourage investment in any number of fields where we should be trying to spur continued innovation.
- **Elimination of Post Grant Review Estoppel:** Under the AIA, a Post Grant Review prohibits the petitioner from later arguing “*any ground that the petitioner raised or reasonably could have raised during that post-grant review.*” The proposed legislation deletes “or reasonably could have raised.” This provision would reverse a long and hard-fought compromise reached during the AIA legislation. This will allow a defendant to bring multiple sequential Post Grant Reviews or other litigation in an effort to defeat the patent holder by burning the inventor’s financial resources and time with effectively perpetual litigation. It would also now allow the infringing petitioner to assert in a civil action or at the International Trade Commission (ITC) “that the claim is invalid on any ground” even though the petitioner could have *reasonably* raised *the issue* during that post-grant review. This provision is another example of how small business inventors can be driven to extinction by exhausting their resources while trying to enforce, or even just keep, their patents.
- **Disclosure of All Plaintiff Interested Parties:** requires both investors and licensors to be disclosed where the patent is the primary asset of the company. This will discourage commerce in two ways. First, in the early stages of company formation, it will require Angel investors to break one of their major priorities: anonymity. This provision will discourage Angels from investing in the smallest companies, when outside funding is hardest to obtain. Secondly, it will dampen licensing activities. When a licensee needs time to incorporate the licensed invention into their product, they normally do not want to

- alert their competition as to where they are moving in the market. This will disclose the fact that the licensee is adding a new feature or an entirely new product line.
- **Enhanced Pleadings and Limiting Discovery:** – H.R.9 and other bills (former S1013) have a provision that dictates enhanced pleadings requiring that the plaintiff produce substantially more information, and a provision limiting discovery prior to claim construction. Patent suits are among the most complicated and detailed, with many variables. The trial judge is the closest to the case and legislating how that judge manages the case will damage the trial judge’s ability to bring a fair solution to both parties. This provision is unduly burdensome and raises pleading standards only on patent owners, requiring detailed particularities in alleging infringement. Glaringly missing are similar requirements that defendants making counterclaims or filing declaratory actions show with particularity why they do not infringe or why the patent is invalid, thus stacking the deck even further against the inventor. In an already expensive and complicated process, these two elements require the patent holder to spend more money up front and operate with less information than is needed. These are particularly onerous to small business inventors as they curtail the patent holder’s ability to enforce a patent and reduce the ability of the judge to manage the case effectively. In addition to legislating court procedure, enhanced pleadings will cause delays in filing suit and add additional costs. It is anticipated that there will be more disputes about the adequacy of the complaints which will also increase the cost of litigation. And, limited discovery will “delay resolution” to the “disadvantage of patent owner” even with “meritorious claims.” Thus, the alleged infringer is incentivized to draw out the claim construction ruling.
 - **Customer Stays:** present a problem for patents that focus on “use” rather than manufacture. The inventor is left with no way to enforce her patent when she can’t sue a manufacturer as the manufacturer is not violating any claims of the patent, and they can’t sue the end users (“Customers”) until she prevails against the manufacturer. This may put the inventors in a Catch-22, where they will have no remedy. It also encourages foreign manufactures to collude to receive a “get out of jail card” and infringe with impunity. A much more thorough description of the problems with customer stays is shown [here](#).¹⁴ The problem is that this provision encourages foreign manufacturers, assemblers and parts suppliers to conspire with one another and with American retailers, arranging for the lowest value, least accessible, least answerable party to handle suits for patent infringement instead of any infringer having the liability. This has the impact of driving more manufacturing jobs overseas, further hurting the American economy.
 - **Patent Term Adjustment (PTA):** Section 9(e) of HR 9 would eliminate Patent Term Adjustment (PTA) award for the PTO’s failure to grant a patent within three years of its filing date (so-called “B delay” PTA) if such PTO delay is incurred after an applicants’ statutorily-provided Request for Continuing Examination (RCE). This proposed section of H.R. 9 is being pushed by the PTO. It would modify 35 USC §154(b)(1)(B) (codifying 37 CFR § 1.703(b)(1) – the PTO’s original erroneous construction of the PTA statute) that did not award any PTA for “B delay” once an RCE has been filed. In so doing, it would overrule the Federal Circuit decision in *Novartis*.¹⁵ The provision would apply only to applications pending on—or filed after—the date of enactment. Of course, the problem with this provision’s application to pending applications is that applicants may have already made decisions about filing RCEs (and not ex parte appeals, for instance) based on the



PTA law prior to HR 9 and this retroactive effect would be unfair and may present a constitutional problem. Thus, it appears we have somewhat of an *ex post facto* law applying to prior applications that are pending. The problem that the SBTC sees with this change, however, is less about PTA credits and more about its effect of eviscerating the effectiveness of RCEs, and by implication, the quality of examination *before* RCEs must be filed. It is important to note that PTA is *not* awarded for RCE delays caused by the applicant. Because applicants would stop tolling PTA credit after filing an RCE, time lost due to PTO delays in prosecuting RCEs is taken away from the patent term. The PTO would have no incentive for prompt prosecution after an RCE is filed. This could embolden the PTO in its reach for rejections, issuing lower quality and incomplete office actions, which the applicant must “take or leave” if he does not want to suffer additional uncompensated delay by filing an RCE. Thus, harm can befall applicants who do not even file RCEs. To some degree, as much as the PTO insists that RCEs are being abused, they keep the PTO honest. It is SBTC’s opinion that this entire section of the law (H.R. 9 Section 9(e)) should not be included in any pending legislation and that Congress’ original intent as ruled in *Novartis* be followed; as it is not really about PTA – it is about chipping-away at the statutory right in § 132(b) for continued examination to get the claims patentees need for protecting their inventions.

3. You also stated that you were in favor of the STRONG Patents Act of 2015. Please provide your rationale.

SBTC has previously come out in favor of the TROL Act.¹⁶ We have recently come out again supporting the TROL Act as being highly superior to H.R. 9 because it is narrowly targeted at the real problem.¹⁷ The STRONG Patent’s Act of 2015 subsumes much of the language of the TROL Act, having all of the salient features of the TROL Act and none of the problematic features of H.R. 9 (or the prior H.R. 3309), or of previous Senate bills such as last year’s S. 1720,¹⁸ S. 1612,¹⁹ S. 866²⁰, or S. 2049²¹. The problem with these prior bills is that they do little or nothing to solve any Troll problem, but in fact weaken patents by making them less enforceable. In general, they attack property rights. This will make America poorer and kill the American Dream. However, the STRONG Patents Act actually does something about Trolls, but does little to harm patent holders. Thus, we can support it.

4. In your testimony, you gave several provisions that you believed that the STRONG Patents Act lacked. Please expound on what else is needed in an environment for small businesses and independent inventors to assure invention can thrive.

Thank you for this opportunity to discuss how patents can be made stronger, not weaker. In my written testimony, I suggested the following

- Incorporating clarifying language into 35 USC 102 that would provide clear and reliable provisions to restore the one-year grace period. This historic protection recognized that exploration and experimentation are critical aspects of the innovation process, and that independent and small business inventors need time to test their invention and gather initial funding, prior to investing in a patent. This will ensure that public use and on sale activities less than one year prior to filing an application do not constitute a bar to obtaining a patent. Just in the last two weeks, a new bill has been proposed called the **Grace Period Restoration Act of 2015**. We thank you

Senator Vitter, as well as Senator Tammy Baldwin (D-WI), and United States Representatives Jim Sensenbrenner (R-WI) and John Conyers, Jr. (D-MI). This bill properly restores the disclosure and publication grace period but needs to be extended to fully restore the grace period for ‘on sale’ and ‘public use’ activities that are not “disclosures.” We look forward to working with you on this legislation so that the full grace period is restored in American law

- Legislating a clear rule of law for patentable subject matter, thereby removing the immense judge-made ambiguity and uncertainty regarding eligible and ineligible subject matter will be very helpful. The recent [Alice](#) case²² and [other judicial rulings](#)^{23,24,25,26} have been invalidating new software and business methods patents. “They are now striking down these patents in record numbers and denying applications that would previously have been granted. It is basically open season on these patents.” “After *Alice* came down, some feared that almost all software-related patents would be held invalid. It looks like that is happening. Since the decision, district courts have uniformly knocked down those patents. But what may be more interesting is that business-method patents are going down in droves,” says Rochelle C. Dreyfuss, a law professor at New York University and co-director of the Engelberg Center on Innovation Law & Policy.²⁷ This has left inventors and the patenting community in a [quandary](#),²⁸ which will reduce the number of patents, and overall innovation.

The reduction of patent royalties (which can be caused by rejection of patents both by the courts²⁹ or the PTO,^{30,31} or by artificial governmental constraints) will reduce the number of patents being issued, which will reduce wealth and economic growth.³² We have seen this in the past, that artificially reducing patent royalties reduces invention and new product creation. For example, the aircraft industry innovation after WWI was likely hindered by suppressing patent licensing royalties that the government initially justified by alleging that the Wright Aircraft Company was a mere patent troll.³³

It is the belief of the SBTC that legislation is required to overrule *Alice*, and encourage more innovation by allowing new valid patents to be issued in the software and business methods fields. Our members have spoken out previously on this by participating in an [Amicus Brief](#) to the US Supreme Court.³⁴ We believe this will promote investment and innovation by allowing inventors and investors to recoup their R&D costs. Software accounts for 15% percent of all gains in U.S. output. Invalidating software patents, quashing the industry (one of America’s fastest growing and most significant industries over the last decades³⁵) will not help America remain competitive. It is our belief that *Alice* may be one of the most destructive Supreme Court decisions ever, and needs to be legislatively overturned (or strictly clarified) as *Alice* will quell patenting, and thus stifle innovation and investment in the US.

- Providing greater elasticity for punitive behavior for small inventors and startup companies when they have acted in good faith but make honest mistakes when attempting to enforce their patents. Even the courts have trouble telling inventors the metes and bounds of terms like “abstract” and patent claims require parties to define the metes and bounds of every single word in a claim. Non-lawyer entrepreneurs should not be punished for making a mistake when drafting demand letters. The bill



should allow a small business or independent patent holder to simply cure ill-informed demand letters with a correction letter or have a telephonic hearing to correct their mistake, rather than starting an FTC investigation. Our issue is once something is in the regulatory (FTC) system; it might easily get out of control. Will a pattern and practice be defined as 100 letters? 10 letters? 2 letters? In the past, we have seen too many “bounty hunters” in the federal agencies with IRS, inspectors general, etc. The law should preclude that up front, by allowing a simple, non-punitive cure. It should not be one more nail in the coffin for small business inventors. The [Burgess Amendment](#)³⁶ on the Trol Act in the House requires small inventors to create procedures for demand letters when a small company may not be aware of the law. This gives infringers one more club to beat back naïve legitimate inventors.

- Extending the protections ensuring expedited procedures accorded in Section 111(c)(2) of the STRONG Act to small business concerns in order to also provide such expedited procedures for small business concerns that assert patents. This is another “goose and gander” provision which the recent patent laws have constantly provided favorable treatment to infringers, punishing inventors. (See the discussion on the Integrity Loophole above.) What we ask for is that both sides should have similar provisions to not penalize inventors, entrepreneurs, and the funders who invest in them.

Other additional items which were not previously included in my written testimony should also be included in any comprehensive patent legislation. The initial purpose of this new round of legislation was to make corrections to the America Invents Act. We therefore also suggest the following.

- Section 6 of the America Invents Act should be modified to change Section 311(c)(1) from 9 months to 3 months. An inter partes review should be initiated promptly. By allowing 9 months, patents are held in limbo, holding up funding by unnecessarily continuing a cloud on the patent’s title. Three months should be ample time for opponents of a patent to find newly issued patents, evaluate them, find prior art and file an IPR if appropriate. Dragging this out to 9 months is unproductive, and saps momentum from entrepreneurial companies. We believe that such a long time to initiate an IPR encourages delaying tactics, holding up the development of new technologies and the enforcement of new patents.
- Similarly, Section 6 of the America Invents Act should also be modified to change Section 311(d) for Post Grant Reviews from 9 months to 3 months. Again, this is a drag on the economy, used to delay and quell innovation, something the Congress should abhor.
- Section 17 of the America Invents Act should be repealed. Hiding behind the failure to obtain advice of council should not allow an infringer to avoid a finding of willful infringement. Also, Treble Damages should be clearly reinstated in the law for any willful infringer.
- Section 19 of the America Invents Act should be modified to repeal the section that relates to Section 299, Joinder of parties. Efficiency of the courts and of the parties should be optimized to allow proceedings to progress in the most efficient manner as approved by the courts. Repeating trials clogs the courts, and arithmetically increases the cost to parties who enforce their patents against multiple infringers. This can also



save infringers money by allowing them to allocate their common defense costs. SBTC believes the only purpose of this provision is to increase costs of companies trying to enforce their patents.

- Section 22 of the America Invents Act should be modified to allow the PTO to keep all of the fees collected from users (which were paid for the sole purpose of examining patents and operating the patent system).³⁷ This was discussed in the hearing on March 19, 2015.
- Continued expansion of additional Satellite Offices, as provided for in Section 23 of the America Invents Act should be encouraged.
- The Small Business Study required by Section 3(1) of the America Invents Act has still not been performed, almost 3 years after it was due. This should be the subject of a hearing or a letter by the Senate.
- Another correction to the America Invents Act should be the repeal of Section 4. This adds unnecessary paperwork to have inventors sign an additional oath as the application commences the national stage. This is redundant, and is particularly burdensome for small entities as inventors may longer be employed by the firm. Thus, the inventor needs to be tracked down and sign again for something that he has already sworn to. This provides no further validity to the patent application, but does add to the cost for little or no benefit. Again, the purpose of the legislation should be to improve the efficiency of the process.
- Legislation should be considered to return injunctions in patent cases to their prior status. The *eBay* case³⁸ has made courts more hesitant to enforce patents with injunctions. Reinstating the prior case law will encourage licensing, thus improving the value of patents and expediting the prompt negotiation of licenses.

5. Why is a secondary market for patents important?

This gets to the fundamental issue of alienable property rights (the right to sell property) and the role of intermediaries. A basic tenant of English law, of our Constitution, and the underpinning of the American economy is that the law protects private property and its lawful alienability. If you own property, you are allowed to sell it at the fair market value. (What would happen to the housing market if people were not allowed to provide clear title when reselling their houses? Who would buy? The market would collapse. If the buyer could not obtain good clear title when buying a used house, they only value they could achieve would be the value of the rental for the property for the use of the house until someone else seized it. If anyone could move in to any house at any time, property would be worthless, as the law would not protect the home owner.)

A similar concept applies to patents.³⁹ As in other property markets, specialized intermediaries are especially valuable in less established, less liquid markets—as markets for new or emerging technology certainly are—and in markets with significant information asymmetries and other transaction costs. For over a century, such patent intermediaries^{40,41} have provided important avenues for patent owners to keep control and coordinate investments and appropriate returns on their inventions. Like any other market for any other kind of good, there can be very little initial investment in innovation unless there is a secondary market, and like any other secondary market, this one requires specialized intermediaries, for realizing economic efficiencies. Without a secondary market, to be able to



sell patents to others including intermediaries (some of whom may be called “Trolls”), patents will lose value. This reduction in value will quell research and development, as investors will perceive a reduced value in conducting the R&D, and thus conduct less of it. This will impact the economy, causing fewer jobs to be created, and consequently less wealth for America.

Thus, a secondary market provides value to the economy. Polls show that we don’t like used car salesmen,⁴² probably because some act like “trolls.” Yet, a secondary market for cars provides a valuable service to the economy. Similarly, a secondary market for patents allows investors in entrepreneurial companies to recoup some of their investment if things don’t go as planned. Since 80% of the businesses fail in the first 18 months,^{43,44} it is important for most company investors to have a fallback position if things don’t work out. Since the patent is usually the most valuable asset of startup technology companies, having a way to liquidate the patent is extremely important to be able to raise money in the early stage of the company. Punishing the secondary patent market is punishing the American innovation economy. As with abusive used car salesman, the focus of anti-troll legislation should be upon the abusive actions of trolls, not the secondary market itself.

6. You mentioned large market-dominant players are pushing bills like H.R. 9. Do you believe there are anti-trust issues at play here?

Anti-trust violations by some of the proponents of H.R. 9 are beyond my knowledge base. However, by definition a market-dominant firm has the benefit of market share, position and strength, and will be aided by reducing the capability to challenge that dominance by potential newcomers such as innovators driven by new technologies (and patents). It will also have more capability to shift its workforce globally to wherever may be the lowest cost location.

As was pointed out in footnotes 51, 52, and 53 of my written testimony, there is data to show that Microsoft has a 93.4% Desktop Operating System Market Share, almost 17 times the 5.2% market share for Mac; Google has 88.1% of the global search engine market share, more than 21 times its nearest competitor at 4.13%; and Cisco had a 42.5% market share of the North American X86 Blade Server Market. This does tend to make the layman raise his eyebrows. The European Union (EU) has accused Google of abusing its dominance in web searches, filing formal anti-trust charges.^{45,46} There likely has been considerable findings of fact to come to their conclusion. Similarly, anti-trust charges have plagued Microsoft.^{47,48}

Perhaps it is time for the FTC to start to evaluate whether there are currently anti-trust issues with these large, market dominant companies. Are their anti-competitive actions hurting American consumers, and thus the economy? Only an investigation by the appropriate Government agency(s) can provide sufficient information to make that determination. It would appear prudent for the Senate to ask those questions.^{49,50,51} Any anti-competitive actions would be particularly harmful to small businesses that are trying to develop new technology, and are being thwarted by large market dominant companies. This will continue to cost American jobs and retard the startup of new businesses.

7. Why in your opinion would some manufacturers be supporting HR9 when you suggest it would be bad for the economy?

Some business models do not depend on patents. Most large incumbent firms do not need patent protection because of their sheer market power and strong sales channels. However,



new entrants with disruptive technology have none of these protections. Successful inventions invite predation by large market incumbents and patents are the only protection for such new market entrants. Those companies that do not invest much in R&D, or those who are using old technology and are fearful of being overtaken by newer better products, are threatened by new technology protected by patents.

For market dominant companies, there are only two ways that they lose their dominant position. Either someone bigger displaces them. Or, more likely, new disruptive technology overtakes them.⁵² The first condition is not a threat to the biggest firms. So, only patented new technology is a threat to them. By weakening patents, these large firms can stay dominant longer by simply adopting the technology of innovators as needed (infringing more freely) to neutralize the benefits of innovation and avoid being displaced by newer firms. Should H.R. 9 become law and as startups understand that this is the new American business model, investment in new technology entrepreneurs will wane, and eventually cease. Innovation will be displaced by sheer lowest cost manufacturing economics practiced by the market dominant companies, and jobs will further move overseas where labor cost is lower. That is why H.R. 9 is so pernicious, and dangerous to the American economy.

Let's look at the value of intellectual property to the economy. The total value of all American households is \$80.7 trillion.⁵³ The total value of intellectual property is about \$10 trillion.⁵⁴ Thus, one dollar out of eight of American household wealth can be attributed to intellectual property. This is why it is so important to protect IP and make sure we keep patents strong and enforceable.

8. Finally, what are the statistics that make you believe that protecting small business and independent inventors so important?

Small Businesses employ 37% of America's scientists and engineers⁵⁵ and 49% of private sector jobs. **Data from the Bureau of Economic Analysis shows that startups and small companies have created 4.4 million domestic jobs in the decade ending in 2008 and during the same period, large multinational companies created 2.5 million foreign jobs while losing 1.7 million domestic jobs.**⁵⁶ SBIR firms have received about 121,000 patents,⁵⁷

“Patents are far more important to small businesses’ survival than to large businesses, and small businesses create more American jobs than large businesses. Weakening patents costs America jobs. Further, licensed patents are the only way universities can commercialize their research.”



and small businesses create **16.5 times** more patents per employee than large firms.⁵⁸ And SBIR firms employ 7% of all of America's STEM workers.⁵⁹

While ostensibly aimed at curbing a small number and anecdotal instances of abusive patent litigation, the overbroad and sweeping proposed legislation in H.R. 9 will have the effect of suppressing patent rights of *all* patentees, and in particular, will hurt the small high-tech, job-creating SBIR businesses, and thus the economy.⁶⁰

Simply stated, Patents are far more important to small businesses' survival than to large businesses, and small businesses create more American jobs than large businesses.

Weakening patents costs America jobs. Further, licensed patents are the only way universities can commercialize their research.”

SBIR firms receive a quarter of America's key innovations and create 58% more patents than all universities combined.⁶¹ SBIR firms employ scientists that have received 11 Nobel prizes, receive one in every seven VC dollars, and were involved in 1,866 Mergers and Acquisition deals.⁶² The Fortune 500 firms' share in generating key innovations has dropped from over 40% in the 1970s and early 1980s to just 6%. Large firms can and do survive without strong patent rights. Small businesses cannot. Weakening patent rights will threaten the very interests of universities and small businesses that Congress sought to protect in appropriating R&D funds, thereby undermining the taxpayers' important investment in research commercialization and domestic job creation. **Without strong patents, foreign interests will usurp American R&D and commercialize our efforts overseas.**

I would be happy to answer any additional questions or to provide input on any proposed legislation. Once again, I would like to thank you for giving me this opportunity to provide small business input to you. You may reach me at 216-374-7237 or by email at rschmidt@CleveMed.com.

Sincerely,
Small Business Technology Council



Robert N. Schmidt
Co-Chair

¹ http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2158395

² http://www.sbc.senate.gov/public/?a=Files.Serve&File_id=cf221704-8083-4230-ae5e-88b6ce8598f7

³ <http://patentspostgrant.com/why-hedge-fund-ptab-filings-will-fail>

⁴ <http://ptolitigationcenter.com/2011/08/the-reexamination-center-executive-interview-chief-judge-paul-r-michel-part-1-of-3/>

⁵ <http://www.apfap.org/about.html>

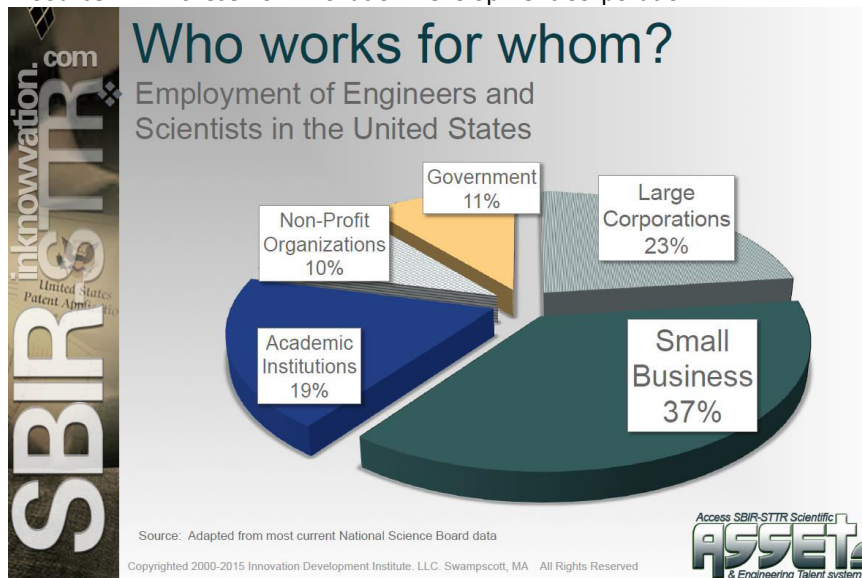
⁶ <http://nsba.biz/leadershipcouncil/patent-reform-update/>

⁷ <http://sbtc.org/wp-content/uploads/2015/03/Letter-to-Senators-asking-them-not-to-sign-the-Sen-Warner-Patent-Letter-03-13-20151.pdf>

- ⁸ http://sbtc.org/wp-content/uploads/2014/04/Advocacy-Letter-to-Senator-Landrieu-3_12_14.pdf
- ⁹ <https://www.congress.gov/bill/113th-congress/senate-bill/1612>
- ¹⁰ <http://nvca.org/issues/patent-reform/>
- ¹¹ <http://nvca.org/?ddownload=1830>
- ¹² <http://nvca.org/?ddownload=1721>
- ¹³ <https://www.congress.gov/bill/113th-congress/senate-bill/866>
- ¹⁴ <http://sbtc.org/wp-content/uploads/2014/02/Letter-to-Office-of-Advocacy-regarding-Patent-Reform-2-13-2014-final.pdf> See Appendix 6.
- ¹⁵ *Novartis Ag v. Lee* 740 F.3d 593 (Fed. Cir. 2014)
- ¹⁶ <http://sbtc.org/wp-content/uploads/2014/07/SBTC-Letter-to-Speaker-Boehner-Supporting-TROL-ACT-7-22-14.pdf>
- ¹⁷ <http://sbtc.org/wp-content/uploads/2015/04/SBTC-Support-of-Trol-Act-4-22-2015.pdf>
- ¹⁸ <https://www.congress.gov/bill/113th-congress/senate-bill/1720>
- ¹⁹ <https://www.congress.gov/bill/113th-congress/senate-bill/1612>
- ²⁰ <https://www.congress.gov/bill/113th-congress/senate-bill/866>
- ²¹ <https://www.congress.gov/bill/113th-congress/senate-bill/2049>
- ²² http://www.supremecourt.gov/opinions/13pdf/13-298_7lh8.pdf
- ²³ <http://www.law360.com/articles/647055/2-container-monitoring-patents-invalidated-under-alice>
- ²⁴ <http://www.lexology.com/library/detail.aspx?g=e61c14cc-ebdf-40cb-9e3d-d9e0d15aca01>
- ²⁵ <http://www.lawyerissue.com/computer-implemented-inventions-searching-for-certainty-in-the-wake-of-the-u-s-supreme-courts-alice-decision/>
- ²⁶ <http://www.therecorder.com/id=1202724316547/Citing-Alice-Judge-Squashes-IV-EmailSorting-Patents?slreturn=20150326194340>
- ²⁷ http://www.abajournal.com/magazine/article/business_method_and_software_patents_may_go_through_the_looking_glass_after
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- ²⁹ <http://www.jonesday.com/key-patent-law-decisions-of-2014-03-26-2015/>
- ³⁰ <http://www.uspto.gov/patent/laws-and-regulations/examination-policy/2014-interim-guidance-subject-matter-eligibility-0>
- ³¹ <http://www.law.com/sites/articles/2015/04/15/impact-of-uspto-guidelines-on-patent-eligibility-following-alice-corp/>
- ³² See Federal Reserve Bank of Cleveland, “Altered States: A Perspective on 75 Years of State Income Growth,” *Annual Report 2005*. For more detail, see Paul Bauer, Mark Schweitzer, Scott Shane, *State Growth Empirics: The Long-Term Determinants of State Income Growth*, Working Paper 06-06, Federal Reserve Bank of Cleveland, May 2006, <https://www.clevelandfed.org/en/Newsroom%20and%20Events/Publications/Working%20Papers/2006%20Working%20Papers.aspx> and then Click on the PDF for WP-06-06 by Bauer *et. al.*
- ³³ Ron D. Katznelson and John Howells, “The Myth of the Early Aviation Patent Hold-Up,” *Industrial and Corporate Change*, forthcoming (2015). Available at <http://ssrn.com/abstract=2355673>
- ³⁴ <http://blogs.reuters.com/alison-frankel/files/2013/11/alicevcls-bancorpamicus.pdf>
- ³⁵ Robert J. Shapiro, “The U.S. Software Industry As an Engine for Economic Growth and Employment,” September 2014, Sonecon. Software and the productivity gains it provides accounted for \$101 billion in production by other industries. Software accounted for 9.5 percent of all gains in U.S. output from 1995 to 2004, and 15.0 percent of those gains from 2004 to 2012. All told, the software industry in 2012 contributed \$526 billion to GDP -- \$425 billion + \$101 billion -- or 3.2 percent of GDP. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2541673
- ³⁶ <http://docs.house.gov/meetings/IF/IF17/20150422/103376/BILLS-114-DiscussionDraft-B001248-Amdt-1.pdf>
- ³⁷ <http://www.uspto.gov/learning-and-resources/fees-and-payment/uspto-fee-schedule>
- ³⁸ <http://www.supremecourt.gov/opinions/05pdf/05-130.pdf>
- ³⁹ Adam Mosseff, “Patents as Property: Conceptualizing the Exclusive Right(s) in Patent Law,” http://works.bepress.com/adam_mossoff/2/

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- ⁴¹ Frank Tietze and Cornelius Herstatt, “Intermediaries and Innovation: Why they emerge and how they facilitate IP transactions on the markets for technology.” *Technology and Innovation Working Paper No. 59*. (2009). Available at <http://ssrn.com/abstract=2118078>.
- ⁴² http://www.huffingtonpost.com/2012/12/03/car-salesmen_n_2231760.html
- ⁴³ <http://www.forbes.com/sites/ericwagner/2013/09/12/five-reasons-8-out-of-10-businesses-fail/>
- ⁴⁴ For a slightly different view of failure rates, see: <http://www.statisticbrain.com/startup-failure-by-industry/>
- ⁴⁵ http://www.nytimes.com/2015/04/16/business/international/european-union-google-antitrust-case.html?_r=0
- ⁴⁶ http://europa.eu/rapid/press-release_STATEMENT-15-4785_en.htm
- ⁴⁷ http://en.wikipedia.org/wiki/United_States_v._Microsoft_Corp.
- ⁴⁸ <http://www.wsj.com/articles/china-and-microsoft-agree-to-fair-and-cooperative-antitrust-investigation-1411947696>
- ⁴⁹ <http://googlemonitor.com/wp-content/uploads/2015/02/Googles-Anti-Conservative-Values-CPAC-Presentation.pdf>
- ⁵⁰ <http://gizmodo.com/5878987/its-official-google-is-evil-now>
- ⁵¹ <http://www.foxbusiness.com/technology/2014/01/17/why-google-really-is-evil/>
- ⁵² The telegraph replaced the Pony Express. Land-line phones overtook the telegraph. Cell phones have replaced land-lines, and so on.
- ⁵³ <http://www.wsj.com/articles/SB10001424052702303824204579423183397213204>
- ⁵⁴ IP-based business activities constitute approximately **55 percent of U.S. GDP**, and in 2011, IP-based assets were valued at about \$9 trillion. This can now be escalated by inflation to over \$10 trillion. See Kevin A. Hassett & Robert Shapiro, *What Ideas Are Worth: The Value of Intellectual Capital And Intangible Assets in the American Economy*, Sonecon (Sept. 2011) at 2, available at www.sonecon.com/docs/studies/Value_of_Intellectual_Capital_in_American_Economy.pdf

⁵⁵ Source: Ann Eskesen of Innovation Development Corporation



⁵⁶ Bureau of Economic Analysis, “Summary Estimates for Multinational Companies,” BEA 11-16, Table 1, (Apr. 2011); US Census Bureau, BDS Job Creation/Destruction reports by firm size. <http://www.census.gov/ces/dataproducts/bds/data.html> (cumulative count for Small firms include those having less than 500 employees).



⁵⁷ www.Inknowvation.com

⁵⁸ <https://www.sba.gov/sites/default/files/sbfaq.pdf>

⁵⁹ Source: Ann Eskesen of Innovation Development Corporation

Analysis of extent to which SBIR-STTR Awardees by State and overall are a factor in US STEM employment

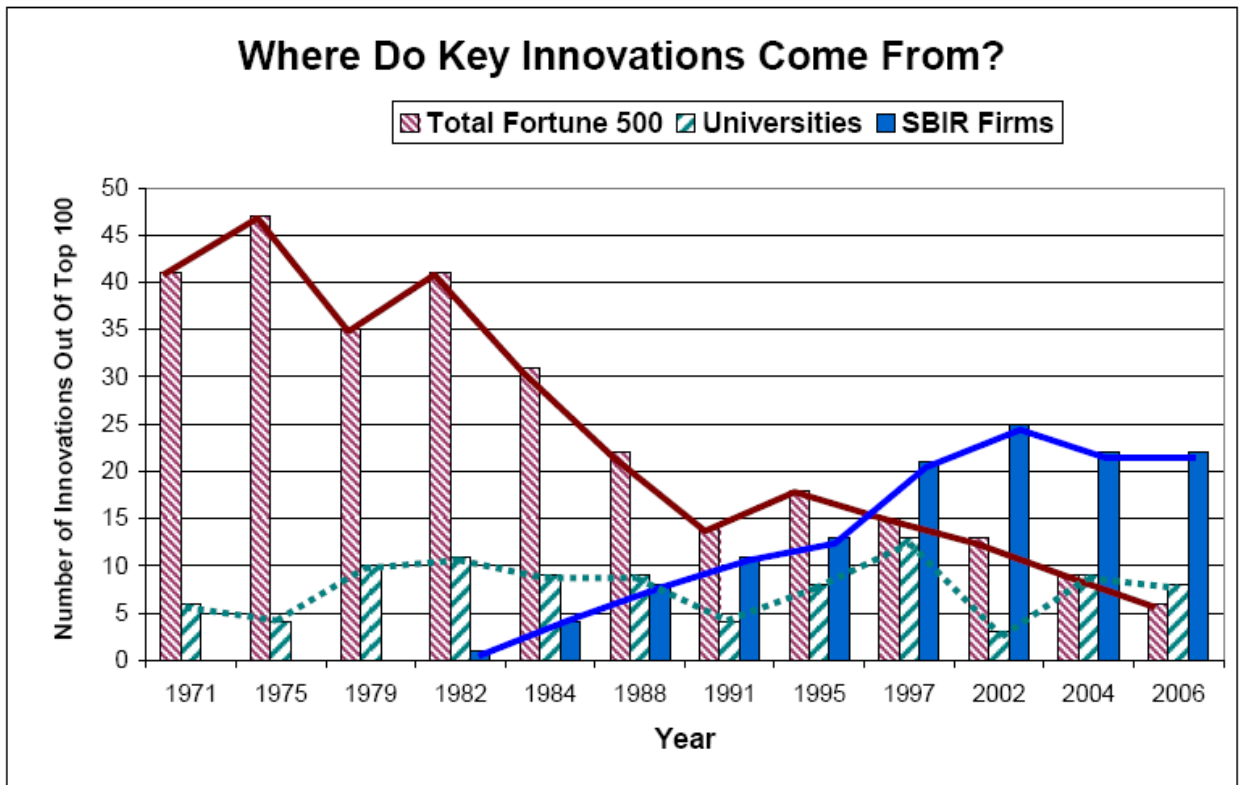
State	Number of SBIR-STTR Awardees	Calculated SBIR-STTR employment	STEM Jobs (2011 data)	% STEM employment being SBIR connected	STEM jobs as percentage of total employment	Percentage of all US STEM jobs
	Notes 1	Notes 2	Notes 3			
AK	28	488	19,902	2.45%	8.01%	0.29%
AL	281	11,592	79,700	14.54%	5.43%	1.16%
AR	71	388	40,087	0.97%	4.24%	0.58%
AZ	378	6,990	123,994	5.64%	6.06%	1.81%
CA	4,514	110,067	895,461	12.29%	7.06%	13.06%
CO	742	12,200	167,347	7.29%	8.85%	2.44%
CT	334	7,612	88,996	8.55%	6.39%	1.30%
DC	88	1,156	72,143	1.60%	15.26%	1.05%
DE	63	1,601	24,847	6.44%	7.20%	0.36%
FL	707	13,637	294,372	4.63%	4.66%	4.29%
GA	347	5,164	171,747	3.01%	5.38%	2.51%
HI	95	1,316	22,186	5.93%	4.59%	0.32%
IA	122	2,069	57,066	3.63%	4.60%	0.83%
ID	86	1,628	34,725	4.69%	6.89%	0.51%
IL	563	7,279	260,730	2.79%	5.38%	3.80%
IN	246	3,941	106,432	3.70%	4.40%	1.55%
KS	93	979	64,069	1.53%	5.95%	0.93%
KY	130	1,306	60,908	2.14%	4.18%	0.89%
LA	84	1,531	59,848	2.56%	3.89%	0.87%
MA	1,797	53,214	249,900	21.29%	8.84%	3.65%
MD	1,061	22,529	202,100	11.15%	9.98%	2.95%
ME	105	1,671	22,397	7.46%	4.60%	0.33%
MI	567	10,291	231,148	4.45%	6.85%	3.37%
MN	308	8,056	157,681	5.11%	6.93%	2.30%
MO	206	3,941	118,544	3.32%	5.42%	1.73%
MS	58	705	31,658	2.23%	3.74%	0.46%
MT	102	1,125	19,447	5.78%	5.59%	0.28%
NC	515	7,859	184,958	4.25%	5.73%	2.70%
ND	36	1,160	12,893	9.00%	3.74%	0.19%
NE	58	1,115	38,768	2.88%	5.08%	0.57%
NH	169	4,578	35,069	13.05%	3.55%	0.51%
NJ	674	16,762	225,629	7.43%	42.79%	3.29%
NM	312	6,075	45,908	13.23%	1.44%	0.67%
NV	85	1,399	32,548	4.30%	5.40%	0.47%
Totals	22,108	499,104	6,855,732	7.28%	6.20%	100%

NY	1,090	20,848	392,267	5.31%	5.46%	5.72%
OH	740	14,332	242,913	5.90%	5.60%	3.54%
OK	108	2,275	57,176	3.98%	4.68%	0.83%
OR	302	6,486	87,500	7.41%	6.38%	1.28%
PA	948	22,723	273,038	8.32%	5.59%	3.98%
RI	97	3,402	20,750	16.40%	5.29%	0.30%
SC	113	1,449	73,464	1.97%	4.97%	1.07%
SD	49	456	13,825	3.30%	4.20%	0.20%
TN	229	4,726	84,300	5.61%	3.76%	1.23%
TX	954	21,282	579,264	3.67%	6.46%	8.45%
UT	301	6,757	66,055	10.23%	6.56%	0.96%
VA	1,064	38,928	302,219	12.88%	10.32%	4.41%
VT	69	1,319	15,991	8.25%	6.47%	0.23%
WA	615	13,336	238,417	5.59%	10.02%	3.48%
WI	311	8,043	120,704	6.66%	5.21%	1.76%
WV	44	696	23,021	3.02%	4.06%	0.34%
WY	49	622	11,620	5.35%	5.48%	0.17%
Totals	22,108	499,104	6,855,732	7.28%	6.20%	100%

Notes:
 Tracking by Innovation Development Institute of employment in SBIR-STTR involved firms is by 12 ranges: small for lower ranges (1-4; 5-9 etc) to large for limited number of larger firms (250-499). Firms having exceeded SBIR Size Note 1 standards (500 employees) are designated 500+ (not small). Except for those Awardees only recently SBIR-STTR graduated and then only for those employment numbers at time of last award, latter not factored into estimated employment numbers used in this analysis.
 Note 2 Source data: EMSI | Economic Modeling Specialists International.

⁶⁰ Patents are critical to the success of SBIR Program participants. The Innovation Act makes patents harder to get and to keep, which will likely retard some companies from commercializing, thus causing them to be removed from the program. This is another way the Innovation Act will decrease company success and employment in the US.

⁶¹ http://www.itif.org/files/Where_do_innovations_come_from.pdf



SBIR firms receive about three to four times as many R&D 100 awards as Fortune 500 Companies, on a tiny fraction of the budget.

⁶² www.innovation.com