

H.R. 2: The RISE Act

Proposed by Congressional Representative Ding of California's 17th District for the 113th Session of the House of Representatives of the United States of America

AN ACT

To promote the research and innovation of scientists and engineers in America and to protect jobs and high tech industry thereof.

Be it enacted by the House of Representatives of the United States of America in Congress assembled:

Section 1. Short Title, Table of Contents

(a) Short Title: This act can be referred to as the RISE (Research and Innovation for Scientists and Engineers) Act.

(b) Table of Contents - the table of contents of this Act is as follows:

Sec 1. Short title, Table of contents

Title I - America's Current and Future Technological Society

Sec 101 - The Importance of Being Technologically Innovative

Sec 102 - The Patent Situation

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Sec 201 - Reformation of the Patent System

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Title I - America's Current and Future Technological Society

(a) Throughout its long and varied history, America has taken on various different modes of economic activities to supplant the nation with proper jobs, creation of new materials, and for building a better future for our offspring. One part of this entails the different eras, of agriculture, industry, and service, that America has underwent as its economy has matured. After the horrors of the World Wars, our nation emerged as a superpower based on its strong industrial manufacturing backbone as well as its ability to continually innovate and discover new ideas. However, in the 21st century, the menial labor of factory workers has largely been replaced by cheaper and less regulated workers in other regions of the world, as our economy has become more integrated with the global warming. Therefore, it is no longer entirely necessary to manufacture all goods within the US, as cheaper goods can be imported from countries that refuse to provide workers with as wonderful of a society as ours.

(b) However, with these new developments, America still requires a proper industry to take initiative in and continue making innovations in. The world has looked to America to lead the world, and lead we shall, by allowing the free market to develop better and stronger plans.

However, this poses a challenge, as stated before, because the original manufacturing jobs are no longer able to be directly improved through more hard working people, as labor is no longer a powerful force of change in the global economy.

Section 101 - The Importance of Being Technologically Innovative

One field that America has truly led the world in over the last half century is the development of new technology. In the midst of the Cold War, Congress supported the National Defense Education Act (1958) to support technological and scientific innovations for young students in America, which arguably allowed for the US to win the Space Race, and in the process, create the most powerful region for innovative technological developments in the world. Since then, the US has had a majority of all research and development teams in the world, processing more patents and containing more startup industries that develop products that are now globally used and replicated, such as the smartphone boom of the 2000s, the birth of the Internet through DARPA in the 1980s, and the development of the personal computers boom in the 1970s. These are critical industries that now support a full 9% of the current US economy, being part of a trillion dollar industry. Therefore, as the changing global economy demands for more of these industries, America must rise to the challenge and fully support all workers who make process in these fields.

Section 102 - The Patent Situation

(a) Patent history is a very crucial part of the American political mindset, first appearing the Constitution as in Article I, Section 8, Clause 8, as reproduced below:

"To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."

Clearly, the purpose of the original founders was to allow for patents to promote authors, inventors, and innovators the ability to invent and create without the fear of their work being stolen or used in other ways, as not intended by the original authors. This system worked for some period of time, including Thomas Edison's patent on the light bulb, Eli Whitney's patent on the Cotton Gin, Henry Ford's patent on the assembly line, and Alexander Graham Bell's patent on the telephone. These inventions would have been hampered if the inventors had to constantly worry about others stealing their ideas, and may have led to less risky moves that stifles creativity and leaps towards better societies.

(b) However, the United States' economy has drastically changed over the last 100 years that warrants a new look at the patent system. Since 1831, the United States has steadily been allowing for more years to be added to copyright protection. From the original limits of allowing 28 years of intellectual protection, we have extended those limits to be the lifetime of the author plus 70 additional years through the Copyright Term Extension Act of 1998. This has become more and more problematic, as the ideas that are being copyrighted are very much different than the original intent of the founding fathers. Instead of only allowing the original author to benefit from the proceeds of their work, current law allows for companies to benefit from original productions long after the death of the original inventors. Therefore, ideas that become well-loved by the public are not able to be shared and remixed without express permission from a larger company. In fact, the main argument against copyright reform is from such companies, who would lose a sizable amount of profits if copyright reform was passed. It would require them to develop new technologies, rather than depend on reliably selling and tested activities. Therefore, the American Public is faced with a great dilemma: Should we allow companies to be moderately profitable for a very much extended time period, permitting copyright to be extended

indefinitely, or should copyright law be reform to create a inherently more risky but more innovative society for all inventors to freely compete in?

(c) One of our founding father's principles can be found in Adam Smith's *The Wealth of Nations*, where he proposes the idea of *Laissez Faire*, or the "invisible hand" of the free market. Instead of allowing for overwhelming government regulation to protect industry, he argues, the industry will be able to regulate itself to generate some form of equilibrium. Although numerous other publications have since proven that such equilibrium are not always beneficial to the economy, it stands that the idea of free market holds true. In fact, if the government provided significant protections to all current industries, preventing them from every failing in any way, our economy would mimic a more state-run economy, such as the economy of China with its large state-run and owned industries. These industries, although powerful and efficient, do not come close to matching the innovation found in American industries, primarily because there is no motivation to create new things. Why risk humiliation and failure when a safe industry backed by the government guarantees a stable job? However, this is not beneficial to the economy as a whole, because, as stated in Section 101, innovation is key for the US economy to continue developing as a superpower. Therefore, it is reasonable for extensive copyright reform to be thought of and implemented soon to promote for the general welfare.

(d) In addition, it is a very important footnote to add that current copyright laws are being horribly abused by large corporation in so called "patent wars", where the legal team is more powerful than research and development teams. Tech giants such as Google, Apple, Samsung, and Microsoft are spending enormous resources to purchase and absorb patents that they believe would earn them money. If a company earns a patent, then all other companies must pay a mandatory fee to utilize that technology or style in any way. But how far has this gone? In a

2013 case, Apple sued Google in the Smartphone battle of iOS vs. Android, over the idea of "swiping right" to unlock the screen. Because the Android operating system implemented such a unlock mechanism, lawyers from Apple argued that Android was intentionally copying their "intellectual property", and therefore be required to pay fees to Apple or otherwise change the product. This concept, that every single idea is able to be patented and monetized, does not encourage innovation; people should not be forced to reinvent the wheel each time a new company emerges to create a new car model.

Section 103 - Research in America

(a) A crucial part of the current economy is the military-industrial-research complex, where the military demands for increased production and improved research, which then are used to shape the entire economy of the United States. This form of feedback ensures that America continues to develop, and injects some amount of governmental intervention in the way that research is conducted in the US. It allows for a certain amount of needed regulation, in order to fund projects that provide for the long term development of the economy. For instance, some research techniques such as quantum mechanics could be difficult for companies to sponsor, primarily because there is no direct way for it to be monetized and sold immediately. However, this technology could be used for future high tech developments. One instance of this was the initial creation of computing machines, then larger than rooms and very unwieldy. Through the developments found at university labs, it has become a powerful invention that all people commonly use.

(b) In today's strained economy, research and development funding may be the first section to be cut from the federal budget, because politicians and other policy makers are unable to perceive the long term benefits of research. Instead, immediate and more pressing issues such as reducing

the federal deficit may seem more significant to constituents, and can allow career politicians to be frequently reelected. Unless if a politician's constituency is very involved in education or research, it is very difficult for bills that promote research to be passed in this country. Therefore, although Americans take pride in the innovations that brilliant scientists have created in the past, it is difficult to persuade them to use tax-payer dollars to fund current research and development.

(c) With a short-sighted vision, America would not be able to develop into a nation that leads other nations. Instead, we would be only able to react to situations as they develop, crippling the ability to predict future markets or to spark new ideas. Therefore, although the status quo may be more comfortable, it is a necessity for America to continue pushing the boundaries by supporting scientists in their research. Government funding and grants are a crucial aspect of the current research situation, as without a constant flow of money, researchers at universities and firms would not have the money to purchase top of the line equipment and hire the smartest and brightest to continue research. In addition, if America becomes unfavorable to scientists for research, a chain effect would be created where less and less scientists come to America.

Innovation is most effective in a large group, where scientists are able to be with other brilliant minds, and if such an intelligence pool dries up, it will be very difficult to regain that status. As the US Congress, devoted to "promoting the general welfare", we cannot allow for this to happen, and must support our sciences.

Section 104 - The Role of Research in American Industries

(a) A major component of American companies are the large Research and Development Teams that are able to investigate what the people want and brainstorm the ideas that drive companies to create new policies. In today's world, R+D requires large groups of committed and talented workers that possess the computational and problem solving skills that are required for complex

tasks. America has historically been an excellent proponent of the success of these workers, which also translates into a direct success for the United States Economy.

(b) For the future, continued research in companies will be the most effective way of translating laboratory findings into something tangible that can be monetized or used by the people. Such advances can transform the industry to benefit the American consumer. In addition, these advances will allow for a continued appreciation for what science is able to do for the common people. By ensuring for continued research and development, we promise to the American people that the USA will always work towards policies that are safer, more convenient, of better quality, and provide for a better standard of living to all Americans.

(c) Historically, the United States government has not been as involved in the Research and Development proceedings of corporations, because although there are large groups of voters who work as laborers in companies, there is a much smaller division of R+D that supports an entire company. Therefore, a company branch with 500 employees may only require a small R+D team of 20 people to support that branch. As a result, these divisions are not as justly represented throughout government, and are not as protected as other groups.

Section 105 - Continued Education of the Sciences

(a) Currently, America is at its height of technological advancement, with a mature technology industry as well as excellent infrastructure in place to allow for adults to continue their roles as innovators of the world. However, in a changing world, more depends on our children than ever before. As the national Congress, one of our priorities must be to ensure that this nation will stay prosperous for decades after our terms. Therefore, we must implement policies that are beneficial to the long term role of the United States Science and Engineering industries.

(b) The largest boom in Science and technologies can be traced to a very specific time period for America: The latter half of the Cold War. If we observe the period of the beginnings of the majority of our technological companies, we find that they take off during the 1960's. This is with direct correlation with the generation of minds educated by the National Defense Education Act of 1958 as well as initiatives taken during the Space Race by NASA as well as advances made for education of nuclear technologies during the Manhattan Project. Sadly, it was only during times of crisis that Americans have been able to realize the power that education holds for the future.

(c) Correlation does not typically lead to causation, so the trends previously discussed in (b) could possibly be a product of chance and a prospering economy. However, numerous academic studies and surveys conducted by institutions of higher learning, as well as the US Census taken every 10 years, have found evidence for the argument that higher amounts of education directly cause a rise in income and an increased likelihood that an individual would take a job in a STEM field.

Title II - A Modest Proposal

Section 201 - Reformation of the Patent System

(a) As mentioned in Section 102, a very important aspect of the American legal system that hampers the innovation of America is the current patent system. Fortunately, this system can be reformed without major changes to the budget system. There is no single institution that prevents or strictly inhibits changes from taking place, as this legal change would only deal with how policies are processed through the courts and not with the way that money is spent by the government. Reformation would deal with changes in the amount of regulation that the government has over the patent process, which may require spending on infrastructure changes

and employment, but such costs would be nominal to the projected GDP that reformations would create.

(b) The most effective and most immediate change that Congress should enact is a termination of all copyright privileges after the death of the creator, or a maximum of 30 years after the creation of the idea/invention, whichever should come later. This provides more than an ample amount of opportunity for ideas to be capitalized upon and used, and would prevent any individuals from fearing that their idea would be stolen before they have a chance to implement it.

(c) More complicatedly, the issue of how corporations deal with patents must be considered. Many patents are written in the name of companies, as the initial creator of the idea is working for and is sponsored by a specific company. Therefore, the way that such companies use their patents should be better regulated, to prevent petty legal suits as outlined in Section 102 (d). We propose that the copyright office should be restructured to have a more stringent review process specifically for patents that are applied for by corporations larger than 50 people. This would allow small companies to continue innovating, but apply a more strict review process for large corporations to prevent "patent trolling". If a board of reviewers evaluate and find that the primary goal of a patent is not to promote innovation, they are subject to subpoena individuals from the company applying for the patent, gather information from rivals of the company, and ultimately be able to make the decision to reject patent applications on the grounds of being too common of an idea or on the grounds that there is no need for such a patent, to their own discretion. In the event of companies protesting the decision, a final national board may review the decision providing that two separate parties file a complaint against the original decision. This review board will be given the final authority on the matter, and its decision cannot be appealed on any grounds, except in the case that issues of the law arise.

(d) In addition, the current Patent Office under the Department of Commerce shall be divided into more specialized subject matters that shall only consider patents of their own knowledge. This will provide with a more professional and knowledgeable insight to the meaning of the patent. Experts and professors can also be called upon to analyze and investigate the patents, provided that they have no conflict of interest with the parties instigating the patent.

(e) In order to implement the changes in parts (c) and (d) of Section 201, a sum of \$100 M is requested from the US government to train existing employees and hire new employees.

Furthermore, office space in Seattle, San Francisco, Houston, Minneapolis, New York, Boston, Atlanta and St. Louis shall be renovated to provide a space for direct communication between corporations and the patent office, in order to better resolve misunderstandings and expedite the application process.

(f) A fee shall be imposed on corporations that request - and are denied - more than 10 patents per year, equivalent to 2 percent of all revenues generated by patent entitlements that year. This will discourage the reckless request of patents by corporations, and also provide funding for Part (e) of Section 201 of this Act.

Section 202 - Reengagement of Federal Funds to Research Facilities

(a) As detailed in Section 103 of this Act, funding from the government is a very important aspect of the continued scientific research of this country. Therefore, the review board for Grants given by the National Science Foundation should be evaluated and audited to guarantee that the grant process is as fair and as encouraging as possible to all universities, regardless of prestige or prior success. In other words, ideas, not power, should be rewarded during the grant process.

(b) In addition, the current value of \$7.6 B granted per year by the NSF and other organizations should be raised to \$10 B per year, and subsequently be adjusted for inflation for every year

afterwards. This value, only 0.05% of the GDP, will prove to be very beneficial to the entirety of America's economy.

(c) In order to fund for part (b) of Section 202 of this Act, Congress shall use the money collected in part (f) of section 201 of this Act.

Section 203 - Pledge to Support Science and Engineering Industries

(a) To facilitate continued innovation in the United States, as outlined in Section 104 of this Act, the US Government will pledge to support all workers in the Research and Development divisions of corporations through fair hiring and employment practices.

(b) Workers may not be undutiful fired or removed from their current position if they have worked for more than 4 years consecutively in their current job and position, without being given 3 months' notice and an opportunity to appeal to a newly created Regional R+D Labor Board under the Department of Commerce on their issue. If such an appeal is heard, the board will deliberate for a maximum of one week with evidence provided by both the company and coworkers before providing a response as to whether or not uphold the appeal. This decision will be made in order to ensure that Research and Development teams are not cut solely because of a desire to increase the profits of a company, and that there is a just reason for the firing of an employee.

(c) The Regional Board as detailed in part (b) of Section 203 of this Act shall be created in the following cities for these regions: Western Region with offices in Seattle and San Francisco, Midwest with an office in St. Louis, Southwest with an office in Houston, South with an office in Atlanta, Mid Atlantic with an office in New York, and Northeast with an office in Boston.

(d) The Regional Board as detailed in part (b) of Section 203 of this Act shall be created with the use of \$150 M from the federal budget.

Section 204 - Pledge for the Future of Science and Engineering

(a) To support the ideas as detailed by Section 105 of this Act, the United States shall investigate a more comprehensive reform of standards in science and technology, in cooperation with the Department of Education. A committee to diagnose and investigate current trends in the American lower education system shall be called and asked to report within 1.5 years of the passing of this Act to provide guidelines on how to reform the system.

(b) This bill reaffirms the importance of highly trained teachers and capable students produced by our educational system and are signed with the hopes for a brighter future for our children.

Title III: Miscellaneous; Severability; Effective Date; Disclosure

Section 301: Amendment Process

Amendments to this Act shall be allowed for any Representatives willing to write such amendments.

Section 302: Severability

If any provision of this Act or amendment made by this Act, or the application of a provision or amendment to any person or circumstance, is held to be unconstitutional, the remainder of this Act and amendments made by this Act, and the application of the provisions and amendment to any person or circumstance, shall not be affected by the holding.

Section 303: Effective Date

This Act will go into effect immediately upon passage of the House of Representatives, as special circumstances have eliminated the Senate and the White House from the branches of the United States government.

Section 304: Judicial Review

In the case of any lawsuit being brought against this Act, the Supreme Court shall have original jurisdiction over such suits as this is a national law dealing with federal powers. The Congress shall be immediately notified of any objections and shall be given the privilege of intervening to inform the judicial system as well as given the privilege to amend this Act as needs fit with the suit.

Section 404: Disclosure

Disclosure of the full text of the bill shall be provided to all citizens for free access as per the Freedom of Information Act of 1967 and completely published in the Congressional Record for the 113th Congress, as to be distributed in public libraries enrolled in the Federal Depository Library Program.

Speaker of the House of Representatives

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