



THE BOSTON PATENT LAW ASSOCIATION

PRESIDENT

Daniel W. Young
Wolf, Greenfield & Sacks, P.C.
600 Atlantic Avenue
Boston, MA 02210
Phone: 617-646-8245
Email: daniel.young@wolfgreenfield.com

PRESIDENT - ELECT

Keith Toms
McCarter & English, LLP
265 Franklin Street
Boston, MA 02210
Phone: 617-449-6591
Email: ktoms@mccarter.com

VICE PRESIDENT

Rebecca M. McNeill
McNeill Baur PLLC
125 Cambridge Park Drive, Suite 301
Cambridge, MA 02140
Phone: 617-489-0002
Email: rebecca.mcneill@mcneillbaur.com

TREASURER

Joshua M. Dalton
Morgan, Lewis & Bockius LLP
One Federal Street
Boston, MA 02110
Phone: 617-951-8284
Email: josh.dalton@morganlewis.com

SECRETARY

Emily R. Whelan
Wilmer Cutler Pickering
Hale & Dorr, LLP
60 State Street
Boston, MA 02109
Phone: 617-526-6567
Email: emily.whelan@wilmerhale.com

PAST PRESIDENT

Michael Bergman
Bergman LLC
10 Bower Street
Medford, MA 02155
Phone: 781-648-8870
Email: mbergman@bergmanco.com

BOARD OF GOVERNORS

Derek Roller
Nutter McClennen & Fish LLP
155 Seaport Boulevard
Boston, MA 02210
Phone: 617.439.2371
Email: droller@nutter.com

Kristin K. Salvaggio
Hamilton, Brook, Smith
& Reynolds, P.C.
155 Seaport Blvd.
Boston, MA 02210
Phone: 617-607-5950
Email: kristen.salvaggio@hbsr.com

Valarie B. Rosen
Cabot Corporation
157 Concord Road
Billerica, MA 01821
Phone: 978-670-7027
Email: Valarie.Rosen@cabotcorp.com

February 22, 2021

Via: www.regulations.gov, Docket No. PTO-P-2020-0057
Attn: Director of the U.S. Patent and Trademark Office
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

Re: Comments on the National Strategy for Expanding American
Innovation, in response to requests for comments at 85 Fed. Reg.
83906 (December 23, 2020)

Dear Acting Director Hirshfeld:

The Boston Patent Law Association (“BPLA”) thanks the United States Patent and Trademark Office (“USPTO”) for the opportunity to respond to the request for comments on developing a national strategy to build a more demographically, geographically, and economically inclusive innovation ecosystem. The BPLA is an association of intellectual property (“IP”) professionals, providing educational programs and a forum for the exchange of ideas and information concerning patent, trademark, and copyright laws in the First Circuit, focusing on the greater Boston area. These comments were prepared with the assistance of the BPLA’s Patent Office Practice Committee and Diversity & Inclusion Committee. The BPLA submits these comments solely as its consensus view. They are not necessarily the views of any individual member, any firm, or any client.

We appreciate the USPTO’s efforts to encourage more diverse participation in the U.S. innovation ecosystem. The BPLA views diversity and inclusion (however defined, but the Request references women, people of color, and those residing in more rural or economically disadvantaged communities) as absolutely critical to maintaining and improving the strength of our IP system, as study after study confirms that diverse and inclusive groups are more innovative and productive than more homogeneous groups. *See, e.g., Catalyst, Quick Take: Why Diversity and Inclusion Matter* (Jun. 24, 2020), <https://www.catalyst.org/research/why-diversity-and-inclusion-matter/>; Stuart R. Levine, *Diversity Confirmed To Boost Innovation And Financial Results*, *Forbes* (Jan. 15, 2020), <https://www.forbes.com/sites/forbesinsights/2020/01/15/diversity-confirmed-to-boost-innovation-and-financial-results>.



THE BOSTON PATENT LAW ASSOCIATION

We offer these comments to assist the USPTO in evaluating how best to reach this goal.

I. Response to Request for Comments

The Request indicates that the USPTO is particularly interested in answers to 17 questions. The questions to which BPLA offers its comments are listed below, as numbered in the Request. While the Request focuses on inventors and prospective inventors, the BPLA believes that diversity and inclusion (hereinafter referred to generically as “diversity”) amongst innovators is best encouraged when the systems and support structures with whom those individuals interface reflects that same goal. Accordingly, it is equally important to expand these efforts to USPTO employees and IP practitioners. Moreover, as discussed in more detail below, many of the recommendations presented herein will assist in achieving this goal for all of these groups.

1. Support of Innovators Outside of Large Corporate and Educational Institutions

The USPTO seeks comment on how people and organizations in the innovation ecosystem can better support inventors and entrepreneurs other than those employed by large corporate or educational institutions.

The key to this query is attempting to bridge the gap created by institutional knowledge, procedures, and training available in established corporations, colleges, and universities that assist innovators in accessing the IP system—resources that are less likely to be available to innovators and entrepreneurs outside those institutions. The BPLA believes that employment of multiple simultaneous avenues of outreach will be required to help achieve this goal and offers a few examples below.

Provision of free public trainings focused on IP basics and the utility of IP have the potential to reduce the burden of accessing IP systems. For example, the USPTO could provide “IP 101” type presentations that include information on the mechanics of seeking IP protection. In addition, demonstrations that include real-world examples of the power of IP protection to further the business and other goals of inventors, entrepreneurs, and artists could be impactful in encouraging greater interface with IP systems. With respect to economically disadvantaged populations, resources around how to access those systems in a less burdensome, less expensive manner, could also have the same effect (*e.g.*, information on reduced fees for small and micro entities and how to meet those requirements, or resources for seeking IP protection *pro se*).

In addition, the USPTO, bar associations, law firms, corporations, and educational institutions should seek collaborations and partnerships with organizations (or committees within



THE BOSTON PATENT LAW ASSOCIATION

organizations) focused on increasing diversity and female empowerment to focus on how to best reach target populations. These organizations and committees are well-positioned to make links to the desired populations in a way that could make these efforts more effective.

Connections could also be directly made with potential innovators through programs for primary school, high school, college, or university students to meet with inventors from under-represented communities to spark interest in innovation, helping to create a pipeline for increased future diversity.

Another mechanism for reaching desired populations would be the deployment of “IP Clinics” that allow IP practitioners to meet with innovators and entrepreneurs in a target population and provide initial or high-level advice. Similar clinics exist in other contexts, where advice can be provided without the establishment of an attorney-client relationship, but with the potential for formal client intake. *See, e.g.,* WilmerHale Legal Services Center of Harvard Law School Housing Law Clinic, <https://www.legalservicescenter.org/get-legal-help/housing-law-unit/>.

2. Barriers to Innovation Inclusion Specific to Women and Some Minorities

A notable barrier to innovation inclusion for all populations is the lack of awareness of the IP system, its role in promoting business and “the progress of science and useful arts,” and how it can be accessed. This barrier can be eroded by educating students about the IP system at every level (primary school through secondary education, college, graduate schools, and even law schools). Target populations cannot participate in a system of which they are not even aware.

Outside of the formal educational system, direct contact with, and outreach to, minority- and woman-owned businesses is another avenue through which awareness of the IP system could be raised. For example, the U.S. Small Business Administration has various programs directed to these businesses through which IP opportunities could be conveyed. *See U.S. Small Business Administration Women-Owned Business Resources*, <https://www.sba.gov/content/women-owned-business-resources> (last visited Feb. 22, 2021); *U.S. Small Business Administration Minority Owned*, <https://www.sba.gov/category/business-groups/minority-owned> (last visited Feb. 22, 2021).

The BPLA believes these efforts could be transformative in achieving the USPTO’s goals, and specific suggestions are discussed in more detail in the responses to Questions 7-9, below.

3. Connecting Underrepresented Innovators to Mentors and Each Other

The BPLA agrees with the USPTO that mentorship and collegiality amongst underrepresented innovators are effective support and encouragement tools that should be facilitated and strengthened in our IP system. IP practitioners and organizations such as law firms and professional associations are well-positioned to help achieve that goal. For example, dedicated mentorship and networking programs focused on “diverse” populations, or online matching programs that pair innovators to other innovators or IP practitioners could be useful tools in that effort.

In addition, emphasis should be placed on early intervention with these underrepresented innovators—these contacts should be made proactively through outreach to educational institutions (from secondary schools, colleges, universities, and law schools), rather than waiting for innovators to find those programs on their own. It will often be the case that the innovators who could most benefit from these programs are not aware of their existence or their potential utility. For this reason, raising awareness, particularly early in the development of these innovators, is key. That said, mentorship functions best when it also fosters a long-term or sustainable relationship, such as with consistent contact points and check-ins over the mentee’s college and early professional career to offer support and ensure success.

Further, existing business organizations have been making progress in diversity outreach efforts for many years. Contact and partnership with such organizations (including with specific individuals who could serve as points of contact for these efforts) might be valuable in establishing and broadening mentoring relationships. One useful example is the U.S. Chambers of Commerce, which includes a variety of targeted subgroups (*e.g.*, LGBT Chamber of Commerce, African-American Chamber of Commerce) and has an established diversity and inclusion agenda. See U.S. Chamber of Commerce Diversity and Inclusion, <https://www.uschamber.com/diversity-and-inclusion> (last visited Feb. 22, 2021).

4. Organizational Metrics to For Diversity and Inclusion Initiatives

Metrics can be a useful tool in ensuring that efforts to improve diversity and inclusion are effective. Employers can track diversity amongst employees by voluntary identification of whether they fall within any “diverse” class. However, raw employment numbers have limited utility for this purpose, as they cannot distinguish true diversity amongst leadership, management, and other key positions from mere tokenism, and can improperly cast an initial low number as a productivity failure where genuine efforts for diversity are ongoing. Accordingly, the BPLA recommends tracking additional metrics, such as the number or percentages of employees in specific positions, as well as their tenure, salary, and salary increases. Critical attention should also be paid to less tangible factors that are as (or perhaps even more) important,

such as receipt of substantive opportunities, client-facing roles, and promotion and elevation opportunities. These are areas that are often not visible but have the effect of placing substantial barriers to the advancement and growth of diverse employees.

Organizations, such as law firms, can also track their diversity metrics with respect to the clients and inventors they serve, *e.g.*, by tracking the number of matters handled for diverse inventors, or clients who are, employ, or are owned or led by a significant percentage of diverse individuals.

5. Metrics for Expanding Innovation

One method for evaluating progress towards expanding innovation would be the establishment of a certification system for organizations that support diverse inventors and entrepreneurs. Again, metrics for raw numbers of diverse employees or diverse inventors or organizations served could be one criteria, but additional criteria (*e.g.*, number of such employees in key positions, tenure, salary, salary increases, receipt of substantive opportunities, client-facing roles, and promotion and elevation opportunities) should also be considered. In addition, certification could take into account the implementation of diversity training or hiring of employees dedicated to increasing diversity and inclusion (*e.g.*, Head of Diversity & Inclusion). Certifications could take the form of gradations for certain achievement levels, similar to the LEED certification system for the design, construction, and operation of high-performance green buildings and neighborhoods.

However, the BPLA wishes to caution that public disclosure of diversity metrics may have the potential to backfire in some cases. For example, an organization that receives a poor metric for diversity could view itself as being so far behind in these efforts that it is simply not worth trying to catch up. In fact, a similar situation is reported in Japan in response to former Prime Minister Shinzo Abe's "womenomics" policy. In particular, this policy pushed Japanese companies to include more females in the workforce, including 30% of management positions in government and industry. It is reported that some companies, after failing to meet targets, "have stopped promoting gender diversity." See Katsumori Matsuoka, *Japan's Chemical Industry Inches Toward Gender Diversity*, C&EN Volume 99, Issue 1 (Jan. 2, 2021), <https://cen.acs.org/careers/diversity/Japans-chemical-industry-inches-toward/99/i1>. Consideration should therefore be given to recognition of organizations that have achieved exceptional levels of diversity, without focusing on those that are underperforming in this respect, to ensure that progress towards diversity remains a uniformly desirable achievement.

6. More Effective Delivery of Information and Resources to Prospective Innovators from Diverse Demographic, Geographic, and Economic Backgrounds

As indicated above, and as discussed in more detail below, the BPLA believes that efforts to educate individuals about the IP system at every educational level could be transformative in achieving the USPTO's goals. Related specific suggestions are discussed in more detail in the responses to Questions 7-9, below.

In addition, organizations such as law firms, bar associations, and government agencies could consider hosting fairs or workshops in different communities seen as lacking representation in the innovation ecosystem. This would provide the opportunity for prospective innovators to connect with those in the IP system to receive important information that will foster access and interface with that system.

Other avenues, such as traditional media, social media, and perhaps electronic gaming venues, could also be leveraged as channels of concept communication to a broad spectrum of prospective innovators, particularly younger demographics. Another example for consideration is the employment of celebrities or visual media to help expand public awareness of IP. The impact of "Shark Tank" on public awareness of certain facets of the entrepreneurial undertaking is readily apparent; a similar production focusing on intellectual property could be an effective mode of outreach.

7. Infusing "Invention Education" Into Curricula

As indicated above, the BPLA believes that efforts to educate individuals about the IP system at every educational level could be transformative in achieving the USPTO's goals. In particular, these efforts could be directed to communities of color, socioeconomically disadvantaged communities, and rural communities (or universities whose student bodies encompass significant numbers of such communities) to help make invention education a key part of the curricula amongst these students. The USPTO is right to focus on the direction of these efforts towards educational institutions. For many young people who are potential future innovators, school is a safe haven where they can employ their imagination in ways that might be more difficult in the rest of their lives. This means that school is a key place to increase awareness of the IP system—a system that relies on imagination, ingenuity, and creativity. As a result, this should be an area of focus for these efforts.



THE BOSTON PATENT LAW ASSOCIATION

A Multi-Faceted Approach

In order to maximize the value of efforts to infuse IP into school curricula, the BPLA believes initiatives should be deployed on multiple levels and through numerous avenues. For example, at the primary and secondary school level, outreach directly to students (*e.g.*, in-class presentations by IP practitioners), teachers (*e.g.*, providing free sessions to educators on how to include information about the IP system in their curricula), and administration (*e.g.*, school principals, superintendents, committees) should be used in conjunction to reinforce the importance and utility of the innovation ecosystem. In particular, interaction with school principals, administrators, superintendents, and committees should be considered, as they are often in the best position to ensure implementation of IP education consistently and across a wide array of contexts. In addition, while Science, Technology, Engineering, and Math (“STEM”)-related subject curricula are easy targets for inclusion of modules on IP, consideration should be given to broader subject matter. For example, classes on business and marketing should also include discussion of the utility of IP, while civics and social studies curricula could highlight the importance of IP to the Founders and its inclusion in the U.S. Constitution.

That said, outreach to technical schools could provide relatively low-hanging fruit for broadening public awareness of intellectual property. In addition, the focus for secondary, college, university, and law school curricula could be on IP as a business tool and a career path, which would also increase awareness that could open up additional paths to greater diversity.

Extracurricular outreach could also be useful in reinforcing the importance of IP to students. For example, interface with school guidance counselors (emphasizing IP as a future career option or involvement with the IP system as a method to improve chances for college admission), school clubs (*e.g.*, Future Business Leaders of America, Robotics Clubs, Science Clubs), and other organizations (*e.g.*, the Girl Scouts and their Intellectual Property patch program (USPTO Kids IP Patch FAQ, <https://www.uspto.gov/kids/patchFAQ.html> (last visited Feb. 22, 2021)), developed with the USPTO and in collaboration with the Intellectual Property Owners Education Foundation) provide additional avenues for emphasis on innovation. While national or regional efforts towards this goal will likely be an important piece of the puzzle, special attention should be paid to leveraging existing connections to target populations through local organizations, such as those focused on promotion of STEM. For example, numerous organizations operating in the Boston area already have inroads to reaching female students and students of color, and could be instrumental in the promotion of IP education to those future innovators. *See, e.g.*, Boston After School & Beyond’s BoSTEM Program, <https://bostonbeyond.org/approach/innovation/stem/> (last visited Feb. 22, 2021) (whose mission is bringing high-quality STEM opportunities to every Boston middle schooler through an innovative citywide coalition of nonprofits, schools, researchers, and industry partners, with a focus on closing the opportunity and achievement gap for youth traditionally underrepresented in STEM); National Society of Black Engineers Boston Professionals, <https://www.nsbeboston.org/> (last visited Feb. 22, 2021) (dedicated to the academic and professional success of Black/African

American engineering students and professionals and their “Be 1 of 10,000 Black Engineers” campaign, aimed at increasing access to resources & diversity in STEM). These and other organizations have connections with communities at the local level across the country. *See* Techbridge Girls, <https://www.techbridgegirls.org/> (last visited Feb. 22, 2021) (focusing on exciting, educating, and equipping girls, including cis girls, trans youth, gender non-conforming and/or non-binary youth, from low-income communities by delivering high-quality STEM programming that empowers achievement of economic mobility and better life chances, with offices in California, the Pacific Northwest and the Washington, DC Metro Area); Scientista Foundation, <http://www.scientistafoundation.com/> (last visited Feb. 22, 2021) (aimed at empowering pre-professional women in science, technology, engineering and math (STEM) through content, communities, and conferences, with chapters at universities across the U.S.).

Importantly, the BPLA believes that a holistic approach is more likely to result in successful and consistent implementation of IP education components into curricula. For example, IP attorneys might present to a high school principal and teachers on the IP system and its potential value to their students. The teachers could then implement corresponding modules in their classes, and a student could then learn about IP as a career from their chemistry teacher or in a science club. The student might next meet with their guidance counselor, who could provide information on colleges that have strong chemistry and pre-law courses.

Development of IP Curricula

The burden of developing an IP curriculum or module is not insubstantial, and is magnified when considering the multiple contexts, educational levels, and time constraints that apply for each implementation. For this reason, model curricula could be extremely helpful for these efforts. The BPLA believes that the USPTO may be in a unique position to leverage other governmental institutions or establish contacts with such institutions for this purpose, as discussed below. Law firms and bar associations could also develop and offer curriculum materials and training to explain how IP helps inventors form and grow businesses based on their innovation.

Substantively, while the content of any IP curriculum is likely to vary depending on context and implementation, any curriculum should make clear that the IP system is designed to serve all individuals. Not only is the system actively seeking participation from diverse populations, but there is no requirement for a particular level of education, employment, or profession in order to utilize IP. In other words, anyone can invent, participate in the IP system, and reap its benefits. This message could be reinforced by inclusion of real-world examples of inventors, their inventions, and businesses led by those from diverse backgrounds, educations, and of various ages, and demonstrate how the IP system bolstered their success. Examples could include talks from diverse high school students who leveraged the IP system to launch a business

or get into college, a child inventor whose products have been commercialized, a female inventor who acquired a patent that enabled her company to gain a foothold in the marketplace, or an artist based in a rural community that used IP to protect their work while bringing it to a wider audience.

The Role of Educational Institutions, Industry, and Government

Educational institutions, industry, and government each have distinct and important roles to play in infusing innovation education. For example, law firms and government can apply pressure from the top down by indicating that they want more diverse applicants interested in IP, and that they believe this starts with IP education. Offering internships to diverse individuals interested in IP would be a concrete way of communicating this desire. Law schools and universities would then seek to meet that need by improving diversity and IP education efforts, potentially by offering scholarships to diverse applicants interested in IP. This would in turn urge college and high school administrations to improve their own IP education efforts in order to seize the opportunities presented and meet the needs of the industry. Those administrations might implement improvements with efforts such as curricula changes and improved guidance and career counseling. In short, industry and government can foster change by taking action to convey to diverse students that “we have a burgeoning industry and we need people like you.”

Government can play other roles in this effort. For example, the USPTO may be in a unique position to leverage or establish contacts with other governmental institutions (such as the Department of Education) to form a joint effort to implement the development of model IP curricula or modules. These efforts would help to meet common goals of increasing diversity in the workforce and broadening the base of U.S. businesses, particularly in communities with diverse populations.

As another path, the USPTO should also consider establishment of pilot programs directed to inventors or applicants who are (or employ a certain percentage of) diverse individuals. Examples would include reduced or waived fees, additional discretion for examiner interviews during patent or trademark prosecution, or training modules or symposia directed to communities with significant diverse populations.

8. The Role of Community Institutions in Building Innovation Awareness and Skills in Rural and Economically Disadvantaged Areas

Community institutions could play a key role in promoting interest in the IP system, for example by partnering with USPTO regional offices or bar associations to give “IP 101”

presentations detailing how the system works, how it can help inventors and entrepreneurs, and how it can serve as an alternative career path. Such events could be held virtually or at local schools or community centers.

The USPTO, law firms, and bar associations could also engage in outreach to community organizations and organizers of events that are well-established in rural areas. For example, 4-H, agricultural co-operatives, and state fairs are often deeply embedded in these communities and could serve as key avenues for the dissemination of information about IP.

9. Resources for Teachers to Incorporate IP and Innovation Concepts Into Their Teaching Methods

As discussed above with respect to Question 7, the USPTO, law firms, and bar associations could develop and offer curriculum materials and training to teachers to help infuse IP and innovation concepts into their classes. Although large-scale implementation may be the most efficient way to disseminate these materials, the best implementation may be by coordination with local attorneys and bar associations in the communities where they live and work.

10. Increasing Rates of Invention and Entrepreneurship in Underrepresented Groups

In addition to the recommendations above, the BPLA believes that offering scholarships, internships, and training to diverse applicants is a powerful tool to increase innovation. These efforts can also help establish connections between organizations and educational institutions to bolster the ranks of those organizations with a more diverse base of employees.

11. Barriers to Creation of an Inclusive, Innovative Workplace Culture

Research demonstrates that implicit bias is pervasive, pernicious, and presents a substantive barrier to creation of inclusive workplaces that foster innovation and creativity. Implicit bias training is a key first step to raise awareness of these biases and the associated barriers, as well as begin to break them down. However, this is a long process and not a one-and-done type endeavor. For this reason, organizations should not only hold ongoing trainings, but also consider other measures to ensure that facts on the ground show the erasure of these impediments (*e.g.*, anonymous surveying as to incidents of bias experienced, where past instances were identified and changes made, etc.). Open discussion (formal or informal) can also be a powerful tool to break down bias-based barriers. Topics like bias have often been

considered taboo for discussion in the workplace, but meeting these barriers head-on in an honest way is an important step in their eventual removal.

Another major barrier to the inclusion of people from underrepresented groups in a workplace culture that fosters innovation is the lack of access to informal networks and training. Steps should be taken to encourage such networks and training for diverse employees. In addition, more transparency and clarity as to criteria for advancement will help level the playing field for diverse employees and foster the formation of an inclusive work environment, which itself will boost creativity and innovation.

12. Support for Individual Inventors and Small Businesses

Individual inventors and small businesses would benefit from publicly available “IP 101”-type presentations that explain the IP system and its potential value to those inventors and businesses. Simply posting such resources online, however, is unlikely to substantively move the needle. Instead, regional USPTO offices, law firms, bar associations, and law schools should take an active role in reaching out to these inventors and businesses to communicate the importance and availability of these training and educational resources.

13. Increasing Diversity Across the Entire IP Field

As discussed above, the BPLA believes that efforts to infuse IP into educational curricula, particularly in schools with significant diverse populations, is a key step in increasing diversity across the entire field of IP. As also discussed above, certifications for organizations that perform well with diversity metrics could help push diversity forward across the board. Importantly, clients, who are also increasingly focused on the value of diversity, would gain the ability to evaluate outside counsel on diversity metrics.

14. Financial Support for a Wider Group of Inventors and Entrepreneurs

As also discussed above, programs that could assist in improving accessibility to the IP system include reduced or waived fees, additional discretion for examiner interviews during patent or trademark prosecution, and training modules or symposia directed to communities with significant diverse populations. These efforts could all reduce the financial burden on inventors and entrepreneurs from diverse backgrounds.



THE BOSTON PATENT LAW ASSOCIATION

On the industry side, financiers and investment firms could provide targeted funding or investment to solo inventors, entrepreneurs, and small business who are diverse, employ a significant number of diverse employees, or who have diverse leadership teams.

II. Conclusion

The BPLA appreciates the opportunity to respond to the Request. Thank you in advance for your consideration of these comments.

Sincerely,

Boston Patent Law Association

By: _____

BPLA Patent Office Practice Committee Co-Chairs
Jonathan B. Roses
Nicole A. Palmer
Matthew R. Van Eman

BPLA Diversity & Inclusion Committee Co-Chairs
Anant K. Saraswat
Mary Lou Wakimura