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Technical Assistance for Intellectual Property Rights Protection: Effects on U.S. Exports

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ABSTRACT

The U.S. government currently provides foreign trading partners with technical assistance, training, and capacity-building programs (TCB) involving intellectual property rights (IPR). In this Report, we investigate whether TCB benefits U.S. businesses operating in developing and emerging markets. We assess the effects of TCB programs through econometric analysis and on-site interviews. Our econometric “gravity model” of trade shows a small positive correlation between U.S. government expenditures on TCB programs involving IPR and U.S. exports to countries which received aid. On-site interviews further explore this result by examining whether IPR-reliant U.S. companies are aware of U.S. TCB programs and whether business decisions are reportedly based on such assistance. We pay particular attention to the extent to which the experiences of IPR-reliant companies are consistent with the results of the econometric analysis. These experiences are generally similar. They suggest that companies are not only aware of U.S. TCB programs but that they believe that these efforts are beneficial. We conclude by offering a set of recommendations to inform U.S. government policymakers and others on how TCB programs can be improved to better serve the needs of the U.S. business community.

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About the Report

This is a joint project between the International Intellectual Property Institute (IIPI) and the United States Patent and Trademark Office (USPTO).

Sponsors

IIPI is a not-for-profit 501(c)(3) corporation organized under the laws of the United States located in Washington, DC. As an international development organization and think tank, IIPI is dedicated to increasing awareness and understanding of the use of intellectual property as a tool for economic growth, particularly in developing countries. (<http://www.iipi.org>)

USPTO is the U.S. Federal agency for granting U.S. patents and registering trademarks. USPTO advises the President of the United States, the Secretary of Commerce, and U.S. Government agencies on intellectual property (IP) policy, protection, and enforcement; and promotes the stronger and more effective IP protection around the world. (<http://www.uspto.gov>)

Project Overview

The U.S. government, through various agencies, provides technical assistance, training, and capacity-building support to foreign governments and trading partners to assist in improving their intellectual property rights (IPR) regimes and enforcement environments. This Report examines whether and to what extent such support impacts U.S. businesses exporting to, licensing in, franchising in, and otherwise doing business in such developing countries. It analyzes whether there is a correlation between (a) technical assistance and capacity building activities and (b) the growth of exports and other business activity by U.S. businesses. The report provides recommendations to assist the U.S. Patent and Trademark Office (USPTO) and the U.S. Agency for International Development (USAID), the primary providers of U.S. government technical assistance in the area of IPR capacity-building and technical assistance, in managing future efforts and coordinating with other U.S. government agencies and multinational institutions on such efforts.

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Technical Assistance for Intellectual Property Rights Protection: Effects on U.S. Exports

1. Executive Summary

This Report examines U.S. government technical assistance and trade capacity-building (TCB) efforts focused on intellectual property rights (IPR) and whether this assistance benefits U.S. businesses in developing-country markets. It assesses the effects of this assistance through econometric analysis and on-site interviews.

We examined the relationship between U.S. exports and U.S. IPR-related technical assistance using an econometric “gravity model.” The gravity model of trade explains bilateral trade flows on the basis of relative economic sizes and “economic distance” between two countries. We performed our analysis on a panel dataset that we constructed that covers 233 countries and 32 industries over an eight year period (2002 to 2009).

The results of our analysis suggest a small but positive association between IPR-related TCB spending and U.S. exports to recipients and a small but positive association between IPR-related TCB spending and royalty and licensing receipts from recipients. These relationships were somewhat stronger in years following the disbursement of funds. Although the results indicate a positive correlation between TCB dollars spent and exports and royalty and licensing receipts, they do not show causation. That is, it is unlikely that each TCB dollar spent is solely responsible for the additional dollars in U.S. exports and royalty and licensing receipts.

We interviewed private and public sector representatives to clarify the relationships suggested by the econometric analysis. In these interviews, we sought to understand how technical assistance and TCB spending affects decision making at companies that export to, license in, franchise in, or otherwise do business in recipient countries. We conducted these interviews in the United States and in Hong Kong, Singapore, and Vietnam.

The interviewees reported that (a) U.S. companies handle IPR issues in foreign markets using a variety of strategies (*e.g.*, compartmentalized production) depending on the perceived strength of IPR protection in that market, (b) technical assistance and TCB programs, especially training programs, improve the business environments of recipient countries by allaying business’ concerns about anticipated legal or procedural changes and by improving IPR enforcement in recipient countries, (c) U.S. companies are aware of and participate in technical assistance and TCB programs, and (d) involving local stakeholders in technical assistance and TCB programs increases their effectiveness. However, interviewees also reported that the benefits of technical assistance and TCB programs were sometimes lessened because U.S. companies received insufficient notice.

Based on the findings of the econometric analysis and interviews, we recommend that U.S. government technical assistance and TCB providers: (a) evaluate programs to develop best practices, (b) improve private sector outreach and notification, (c) focus on training and development of local stakeholders, and (d) devote more resources to technical assistance programs. Given the benefits reported by interviewees, the increasing importance of intellectual property in today's global economy, and the modest sums which have been spent on technical assistance and TCB efforts, implementation of these recommendations would undoubtedly enhance the results which have been obtained until now.

In addition to our analysis and recommendations, this Report contains several addenda to assist researchers investigating technical assistance TCB programs. Addendum A describes types and targets of U.S. government technical assistance and TCB programs, and Addendum B describes the kinds of technical assistance and TCB programs administered and conducted by selected U.S. government agencies.

2. Introduction

In this Report, we examine U.S. government technical assistance and trade capacity-building (TCB) efforts focused on intellectual property rights (IPR) and whether this assistance benefits U.S. businesses in developing-country markets.¹ We assess the effects of this assistance through econometric analysis and on-site interviews. We also interviewed representatives from relevant U.S. and foreign government agencies and instrumentalities. We examined the relationship between U.S. exports and U.S. IPR-related technical assistance with econometric analysis using a "gravity model."² The econometric results suggest a small but positive association between IPR-related TCB spending and U.S. exports to recipients and a small but positive association between IPR-related TCB spending and royalty and licensing receipts from recipients.

To evaluate whether these U.S. government programs and TCB spending related to IPR affect the business decision-making of individual companies, we worked closely with the U.S. Foreign Commercial Service, American Chambers of Commerce Abroad (AmCham), and other organizations to identify and interview a wide range of IP-reliant companies and other interested parties. To obtain a broad cross-section of views, we met with a range of entities including services providers, manufactured goods producers, U.S. and foreign government officials, trade associations, importers, and U.S. state trade development offices. The category "services providers" includes businesses that market directly to consumers (business to consumer) as well as business consultants, attorneys, and mediators

¹ We use the terms technical assistance and TCB interchangeably throughout this Report.

² The gravity model has been used in empirical trade analysis for over 30 years and is discussed in greater detail *infra*. p. 6-8.

that service primarily business entities (business to business). We met with these types of service providers as well as foreign government officials charged with attracting foreign direct investment (FDI) because we believed such entities may represent or communicate regularly with U.S. entities that would have opinions concerning the subject of the report.

The results were mixed. The parties we spoke to were generally aware of U.S. government training, but fewer were aware of longer-range projects of the kind implemented by the U.S. Agency for International Development (USAID). The trainings were viewed favorably, and many of those with whom we spoke had attended and participated in such trainings.

We also spoke with U.S. government agencies to evaluate the priority they give to assistance programs involving IPR. Some—but not all—view IPR technical assistance as a priority area. This is reflected by such agencies devoting personnel to IPR programs, organizing events and training, and implementing projects despite limited funding resources compared to overall agency budgets.

We conclude with a set of recommendations to help inform government policy-makers and other interested parties on how technical assistance efforts involving IPR can be improved to better serve the needs of the U.S. business community and the U.S. government.

a. *The Economic Importance of Intellectual Property*

Intellectual property rights (IPR) are defined widely to represent creations of the mind, including literary and artistic works, which are protected by copyrights; symbols, names, images and designs used in commerce, which are protected by trademarks; industrial property and inventions, which are protected by patents; and confidential business information developed by firms, which are covered by trade secrets (World Intellectual Property Organization- What is Intellectual Property?,³ U.S. International Trade Commission 2010). These traditional types of IPR have been joined in recent years by new forms, such as geographical indications and traditional art/folklore. Today, even many products that were once deemed “low technology” goods, such as clothing and handbags, contain a high proportion of invention and design in their value.

The importance of IPR and innovation to the U.S. economy has been demonstrated in a number of studies. According to one high-end estimate, IPR-intensive industries accounted for as much as 45 percent of total U.S. output for tradable industries and 59 percent of the exports and 31 percent of the employment of industries producing tradable goods in 2007 (Pham 2010). U.S. firms are also dependent on global IPR protection in foreign countries. In 2010, the United States

³ <http://www.wipo.int/about-ip/en/> (last visited April 23, 2012).

had the greatest number of patent filings abroad (World Intellectual Property Organization 2011).

Investment in intangible assets—which includes IPR⁴—is estimated to total more than \$1.2 trillion (Corrado *et al.* 2006).⁵ To put the magnitude of this figure in perspective, it is more than the gross domestic product of all but 13 countries (Central Intelligence Agency World Factbook 2011). Because of the rapid pace of new product development for IPR-intensive goods and services and the increasingly global nature of supply chains, IPR protection and enforcement are important concerns for many U.S. companies.

b. *The Impact of Poor IPR Protections on U.S. Exporters*

Lack of institutional capacity and IPR-awareness in developing countries is believed to hinder efforts by U.S. exporters to protect themselves effectively against infringement in those countries. According to the U.S. Government Accountability Office (GAO), “[t]he United States dominates the creation and export of intellectual property ... However, protection of intellectual property in many parts of the world is inadequate, and as a result, U.S. goods are subject to substantial counterfeiting and piracy in many countries ...” (U.S. Government Accountability Office 2004). For example, a recent investigation uncovered a “massive counterfeit smuggling enterprise” which imported and attempted to import from China “more than 135 containers of counterfeit goods – primarily Coach, Louis Vuitton and other handbags, footwear such as UGG boots and Nike sneakers, and clothing – into the United States.” Had this not been uncovered, “approximately \$ 300 million of illicit goods would have been smuggled into ...[the United States].” (U.S. Attorney’s Office, District of New Jersey, March 2, 2012)⁶

Additionally, a weak IPR environment in a foreign country can discourage U.S. exporters and limit the foreign country’s ability to attract foreign investment. In a study for the World Bank, Mansfield (1994) surveyed 100 major firms in six manufacturing industries to determine the importance of IPR in influencing decisions to make various types of investments. While responses varied on the degree of importance of IPR to the industry, IPR was a factor in the decisions of every industry and weighed more heavily for those types of investment that transferred more technology. More recent empirical work confirms a general

⁴ Other items deemed intangible assets that receive investment dollars include research and development efforts; computer software and databases; marketing programs; financial investments; and certain spending by publishing, motion picture, and sound recording producers.

⁵ No hard data exist because government statistical agencies have been only gradually collecting the data necessary to measure the various components of intangible investment. Thus, economists are forced to estimate the total values of U.S. intangible investment over time. *See, e.g.*, Nakamura 2001, 2003; Corrado, Hulten, and Sichel 2005, 2006, whose estimates are remarkably consistent.

⁶ <http://www.justice.gov/usao/nj/Press/files/Siu,%20Patrick%20et%20al.html>.

positive link between IPR protection and foreign direct investment decisions (Braga and Fink 1998 ; Maskus 1998; Javorcik 2004).

The business community has itself acknowledged the reticence to invest in countries with poor IPR enforcement. For example, the Vietnam EuroCham’s 2012 “White Book” noted that “[a]t the beginning of 2011, the Vietnamese government announced it would be emphasizing ‘quality over quantity’ where FDI is concerned. This presumably meant that Vietnam would be focusing on attracting high-technology value-added manufacturing from European and other foreign companies. However, Vietnam cannot reasonably expect this to happen until there is a significant improvement in the enforcement of intellectual property rights (‘IPR’) and related rights in this country.” (European Chamber of Commerce 2012).⁷ Thus, IPR enforcement is especially important to countries seeking to attract business from high technology companies.

c. *The Need for Technical Assistance*

Technical assistance involving IPR is a necessary element to a country’s development of a useful and fair intellectual property system that aids economic growth (Taylor 2011; Lerner 2008; Thelen 2005).⁸ Trainings are needed due to the challenges many developing countries face in implementing and enforcing intellectual property laws (Lerner 2008). For example, many countries lack the required infrastructure for awarding and enforcing IPR rights, such as patent examining offices (*Id.*). Education and training to increase knowledge in IPR is necessary to modernize the IPR systems in developing nations in order to make their IPR systems effective tools to encourage economic, social, and cultural development (World Intellectual Property Organization 2001).⁹

Developing nations receive several benefits from improved IPR protection. Companies in developed nations such as the United States prefer to invest in countries where they know their intellectual property will be protected (Taylor

⁷ The quoted language is found on p. 58 of the cited publication. Gregory F. Buhyoff, a lawyer in private practice in Hanoi, Vietnam, wrote the IPR Chapter of the cited publication.

⁸ *See also*, Article 67 of the World Trade Organization’s (WTO) Agreement on Trade-Related Aspects of Intellectual Property (TRIPS) (requiring that developed countries provide technical assistance to less-developed nations). Article 67 details WTO Members’ TRIPS obligations concerning Technical Cooperation, and it states: “In order to facilitate the implementation of this Agreement, developed country Members shall provide, on request and on mutually agreed terms and conditions, technical and financial cooperation in favour of developing and least-developed country Members. Such cooperation shall include assistance in the preparation of laws and regulations on the protection and enforcement of intellectual property rights as well as on the prevention of their abuse, and shall include support regarding the establishment or reinforcement of domestic offices and agencies relevant to these matters, including the training of personnel.”

⁹ http://www.wipo.int/ldcs/en/ip/dev_ipsystems.html.

2011).¹⁰ Crafting an infrastructure to protect IPR and teaching artists and scientists how to use it allows the creators themselves to benefit economically from their creations and encourages others to begin innovating or investing in information and creation-based businesses (World Intellectual Property Organization 2001). Effective IPR enforcement is necessary to ensure that innovators realize the full benefits of their work and that the economies of developing nations continue to progress.

A primary means for encouraging foreign governments to strengthen their IPR protection practices is to demonstrate their economic self-interest in taking such action. This concept is not new—the U.S. government came to this conclusion some 25 years ago.¹¹ In short, technical assistance plays a key role in this process and is an essential component of any developing country’s IPR-implementation plan.

d. *Report Methodology*

We took a multi-faceted approach to analyzing the relationship between U.S. government technical assistance and TCB programs and the growth of U.S. exports and other business activities. First, we assembled and analyzed a data set to determine whether a statistical correlation existed between these variables at the macro-level. We then conducted a series of interviews with relevant entities and other interested parties to clarify and explain this relationship, *e.g.*, whether companies actually doing business in developing countries saw any relationship between U.S. government technical assistance and a concomitant increase in business activities in such countries.

3. Review of Existing Research

Analytical work seeking to measure the effectiveness of IPR-related technical assistance is limited, particularly with respect to U.S. exports. Most of the existing literature focuses on the impacts of technical assistance on recipient country trade. For example, Bearce *et al.* (2010) conducted a comprehensive study on the effectiveness of TCB activities and recipient countries’ export performance. The study found that, on average, TCB spending had a positive effect on the recipient

¹⁰ See also email from Jose Meythaler, partner, Larreategui, Meythaler & Zambrano, to Eric Robbins, legal fellow, International Intellectual Property Institute on March 29, 2012 (on file with IPI).

¹¹ See U.S. Government Accountability Office, *Strengthening Worldwide Protection of Intellectual Property Rights*, GAO/NSIAD-87-65 (1987) (“The U.S. Government’s primary means for encouraging foreign governments to strengthen their intellectual property protection practices has been to demonstrate their economic self-interest in taking such action. U.S. representatives point out that protecting intellectual property encourages foreign direct investment and the development of domestic industries. While the available funds are very limited, the U.S. government also provides some training to help foreign nationals to prepare and administer adequate and effective laws, regulations and administrative mechanisms.”).

country's exports. The authors highlighted the difficulty of isolating the marginal impact of TCB spending, pointing to the importance of country-specific factors.¹²

Recent anecdotal evidence suggests TCB spending in general has had a positive impact on U.S. imports from recipient countries. The Office of the U.S. Trade Representative (USTR) reports a number of success stories in trade capacity building, detailing how improved safety and quality standards, management training, improving physical infrastructure, government capacity, financing and investment have helped countries increase their exports to the United States (U.S. Trade Representative 2011).¹³ However, there is little or no mention of the effect of TCB spending on U.S. exports to recipient countries. Neither is there mention of royalty and licensing transactions by U.S. firms with recipient countries.

A major new study by the U.S. International Trade Commission (USITC) deals with the effects on the U.S. economy of IP infringement in China and China's indigenous innovation policies.¹⁴ The study included a statistical and simulation analysis to estimate the effects on the U.S. economy of an improvement in China's IP protection to U.S. levels. The analysis was based on a survey sent to over 5,000 U.S. firms in the IP-intensive part of the U.S. economy. These firms reported lost sales, profits, and license and royalty fees (as well as damaged brand names and product reputation) resulting from IP infringement in China. The statistical and simulation analysis produced estimates on the effect of improvements in China's IP protection as follows: (1) a \$21.4 billion increase in U.S. exports of goods and services to China, and (2) an increase of \$87.8 billion in sales to U.S. majority-owned affiliates in China. (U.S. International Trade Comm'n 2011).

Although the survey conducted by the USITC did not deal with the effects of technical assistance and trade capacity-building, it does show that an improvement in the IP protections of a country can have a positive effect on U.S. exports.

4. Design and Logic of the Study

Examining TCB spending and effects on trade or any economic variable presents challenges. As a number of factors affect a country's trade performance, it is difficult to capture and isolate the impact of IPR programs in a systematic,

¹² Dupasquier and Osakwe (2004) also discuss the role of domestic factors in the sustainability of technical assistance and TCB spending, such as effective government, regulatory framework, and political stability.

¹³ The cited material is found in the U.S. Trade Representative authored reference entitled "Success Stories in Trade Capacity Building."

¹⁴ "China's indigenous innovation policies, which promote the development, commercialization and procurement of Chinese products and technologies, are of recent origin. In some industries, they appear to have eroded the competitive positions of U.S. and other foreign firms in China while creating new barriers to foreign direct investment (FDI) and exports. More generally, U.S. firms are concerned about the future implications of China's evolving policies in such areas as preferential support for Chinese firms and the implementation of China-specific technical standards." (United States International Trade Comm'n 2011).

empirical approach. For instance, U.S. exports to developing markets are affected by a variety of factors such as domestic infrastructure (*e.g.*, roads, electricity), sophistication of trade infrastructure (port and customs administration), degree of corruption, and social, economic, and political stability. In addition, while we are trying to capture the economic effects of TCB spending, it is possible TCB recipients are chosen for economic performance. Our analysis does not capture these nuances. Notwithstanding, a country-level econometric analysis of the correlation between TCB spending and trade performance, while controlling for key country characteristics, may present a useful first step in establishing some quantitative evidence of a relationship.

a. *Our Modeling Approach*

We examined the relationship between U.S. exports and U.S. IPR-related technical assistance using an econometric “gravity model.” The gravity model of trade explains bilateral trade flows on the basis of relative economic sizes and “economic distance” between two countries. Stated simply, trade between a pair of countries is related: (a) positively based on the size of the countries involved; and, (b) negatively based on costs linked to distance and policy, like shipping and tariffs. The gravity model has been used in empirical trade analysis for over 30 years and is the foundation for literally hundreds of applied studies dating back to Tinbergen (1962).

Recent application of the gravity model includes additional explanatory variables, including economic policy variables, in order to assess the effects of these variables on trade and investment. A wide range of economic policy issues have been evaluated using a gravity-based benchmark. These include the effects of protection (Harrigan 1993), openness (Lawrence 1987; Saxonhouse 1989; Harrigan 1996), the effects of free trade agreements (Frankel, Stein, and Wei 1997; Rose 2004), and the effects of national borders (McCallum 1995; Evans 2000; Anderson and van Wincoop 2001; Balistreri and Hillberry 2006, 2007, 2008). Using the same theoretical approach, we apply the gravity model to examine the trade effects of TCB activities, particularly IPR-related activities.

Our estimating equation incorporates variables for the level of income (per capita GDP), size (population), distance, and openness to trade. We also control for whether a country has a Free Trade Agreement (FTA) with the United States, as research has found the presence of an FTA between two countries to be economically and statistically important in explaining bilateral trade flows. In addition to the traditional trade effects from tariff cuts, FTAs have nontariff provisions that have been found to increase bilateral economic activity from closer ties (*see Alba et. al.* 2010; Hartigan 2006; and Ferrantino 2006).

We constructed a panel dataset that covers 233 countries and 32 industries over an eight year period (2002 to 2009). While the data on U.S. exports come from the Census Bureau at the four-digit North American Industry Classification System (NAICS) category level, in current U.S. dollars, we have aggregated up to the three-digit level as some four-digit NAICS categories changed definitions over the period. The aggregation up to the three-digit NAICS level ensures consistency over time while still keeping rich industry detail needed for this Report. The three-digit NAICS categories did not change over the period. Our dataset is thus composed of 32 industries at the three-digit NAICS category level.

We have drawn our figures for U.S. technical assistance spending involving IPR over 2002-2009 from USAID's Trade Capacity Building Database.¹⁵ We focus on projects related to assisting countries with implementing their IPR commitments under the World Trade Organization's Agreement on Trade-Related Aspects of Intellectual Property (TRIPS), as this is the only database category specifically for IPR projects.¹⁶ We have data for every country reported as having received an IPR-related technical assistance project during the period, for blocks of TCB spending targeted at geographical regions, and for the world as a whole. We did not include regional or global TCB spending in our data set as our econometric model focuses on bilateral trade flows and is not well suited to incorporate regional data. We elected not to distribute regional spending uniformly to each country in a region because such a distribution would be arbitrary. Regional TCB spending may have economically important effects on all or certain countries in the region, but those are not captured in our empirical analysis.

Data for country size (GDP per capita) and population come from the International Monetary Fund's World Economic Outlook Database.¹⁷ Our distance measure is the Great Circle distance between capital cities, which we obtained from Jon Haveman's international trade database.¹⁸ Our measure of openness to trade comes from The Heritage Foundation's index of economic freedom, which includes a measure of openness to trade for all countries called the "trade freedom index." This

¹⁵ See <http://tcb.eads.usaidallnet.gov/data/>.

¹⁶ We present our figures in current U.S. dollars.

¹⁷ <http://www.imf.org/external/pubs/ft/weo/2011/02/weodata/weoselgr.aspx>. The GDP data is in current U.S. dollars.

¹⁸ <http://www.macalester.edu/research/economics/page/haveman/Trade.Resources/TradeData.html>.

index is a composite measure of the absence of tariff and non-tariff barriers that affect imports and exports of goods and services. The trade freedom score is based on a country's trade weighted average tariff rate and nontariff barriers, estimated both quantitatively and qualitatively.¹⁹ The index ranges from 0 to 100 (100 represents maximum freedom).

The FTA variable takes on a value of one for countries with which the United States has an FTA, and zero otherwise. The United States has an FTA with 19 countries (Australia, Bahrain, Canada, Chile, Colombia, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Israel, Jordan, Korea, Mexico, Morocco, Nicaragua, Oman, Peru, and Singapore).²⁰

5. Analysis and Interpretation

On the basis of pooled data (cumulative data over the 2002-2009 period), our results suggest that country-specific U.S. IPR-related technical assistance is generally associated with a higher level of U.S. exports (table 5).²¹ A 1 percent increase in IPR-related TCB funding is associated with a small overall increase in U.S. exports to TCB recipient countries of 0.0569 percent in the same year. Looking at the results with time lags reveals the bulk of this export effect comes around two years after the TCB spending occurs, where a 1 percent increase in TCB funding is associated with a 0.0485 percent increase in U.S. exports. Based on average IPR-related TCB spending of \$258,000 per country and average U.S. exports in 2009 of \$4.3 billion, our estimates suggest that each \$100 spent on IPR-related technical assistance is associated with an increase of approximately \$80 in U.S. exports.²²

The estimated impacts on royalty and licensing receipts are also positive, but small. A 1 percent increase in TCB funding is associated with an overall increase in royalty and licensing receipts of 0.0359 percent in the same year. Further analysis, however, reveals a stronger lagged effect. Specifically, a 1 percent increase in TCB funding is associated with 0.0546 percent increase in royalty and licensing receipts approximately three years later. For the group of countries for which U.S. royalty and licensing receipts are recorded and there are reported data, average TCB spending totaled \$243 million and average royalty and licensing receipts totaled \$647 million. We observe, therefore, that each \$100 spent on IPR-related technical

¹⁹ <http://www.heritage.org/index/Trade-Freedom>.

²⁰ The United States has signed an FTA with an additional country, Panama, although as of the writing of this Report, this FTA has not yet entered into force. *See* U.S. Trade Representative- Free Trade Agreements.

²¹ *See infra* at Appendix A ("Sources and Types of U.S. Government Assistance – Overview").

²² A number of the leading IPR-related TCB recipients are also leading recipients of U.S. military aid, which itself is likely to be a significant driver of U.S. military exports to the recipients of the military assistance. To ensure that U.S. military exports were not unduly affecting our results, we removed them from the export data base. We found that the coefficients on all the independent variables remain the same in terms of sign, significance and magnitude. In other words, the presence of military exports in the data base is not driving the results.

assistance is associated with a \$15 increase in U.S. royalty and licensing receipts over the three years following the allocation.

In addition, we considered royalty and licensing payments made by TCB recipient countries to the United States. While the coefficients on the country characteristics were as expected and similar to those above, the coefficient on TCB funding was not statistically significant, in general, lagged, or cumulatively. Overall, these results (not reported here) suggest that while TCB funding is associated with higher royalty and licensing receipts by U.S. firms, it is not associated with higher royalty and licensing payments made by U.S. firms to TCB recipients.

Table 1
Econometric Results
IPR TCB: Effects on U.S. Exports and Royalty and Licensing Receipts

Dependent Variable	Total U.S. Exports	Total U.S. Exports	Total U.S. Exports	Total U.S. Roy. & Licensing Receipts	Total U.S. Roy. & Licensing Receipts	Total U.S. Roy. & Licensing Receipts
lnGDP per capita	0.9898 (0.0367)***	0.9547 (0.0485)***	0.9430 (0.0591)***	1.274 (0.0776)***	1.351 (0.1072)***	1.238 (0.0741)***
LnPopulation	0.9430 (0.0216)**	0.9056 (0.0315)***	0.9427 (0.0629)***	0.7169 (0.0498)***	0.7897 (0.0564)***	0.6865 (0.0461)***
LnDistance	-1.434 (0.0684)***	-1.3880 (0.0876)***	-1.484 (0.1988)***	-0.6502 (0.1641)***	-0.4696 (0.2049)***	-0.7254 (0.1527)***
FTA	0.3797 (0.0803)***	0.3606 (0.1042)***	0.3807 (0.2562)***	-0.8267 (0.1787)***	-0.630 (0.215)***	-0.7838 (0.1594)***
lnIPR TCB	0.0569 (0.0219)**	0.0391 (0.0266)		0.0359 (0.0191)*	0.0023 (0.004)	
lnIPR TCB(-1)		0.0485 (0.0279)*			0.0086 (0.0044)	
lnIPR TCB(-2)		0.0056 (0.0279)			0.0281 (0.0044)	
lnIPR TCB(-3)		0.0172			0.0546 (0.0232)**	
lnIPR TCB Cumulative			0.0339 (0.0142)**			0.0684 (0.0161)***
Constant	9.508 (0.7599)***	9.977 (1.004)***	10.29 (1.718)***	-11.68 (2.731)	-15.47 (3.34)***	-10.35 (2.49)***
R-squared	0.8218	0.8223	0.8205	0.8914	0.9025	0.9051
No. of observation	507	313	507	84	48	84

Note: Standard errors are in parentheses. Statistical significance is denoted as follows:
*** p<0.01, ** p<0.05, * p<0.10. All standard errors are robust. All regressions are pooled OLS except regressions with TCB cumulative, which are GLS regressions with AR(1) disturbances, to correct for autocorrelation.

Source: Authors' estimates

The coefficients for the country characteristics variables are as one would expect. GDP per capita and population each have a positive and significant effect on U.S. exports. Distance has a negative and significant effect on trade, and trade openness and the presence of an FTA each have a positive and significant effect on trade. The coefficients on TCB spending in the year delivered and one year after are positive but not statistically significant. The coefficient on TCB spending lagged two years is positive and significant. These results are consistent with the expectation that some period of time is required before the monies spent and specific rules, regulations, and procedures in a country's IPR regime are reformed for there to be a measurable effect on U.S. exports. We note that previous authors (Bearce *et al.* 2010) have also found the significance of a two year lag, albeit looking at a TCB recipient country's exports.

We also consider cumulative spending, which measures TCB spending in sum over the 2002-2009 period. The coefficient of the variable for cumulative TCB

spending is positive and significant, and similar in magnitude to the results from the lagged structure. Overall, these results are consistent with a lag effect, *i.e.*, that it may take a few years before TCB spending causes changes in a recipient country's IPR regime. Until this happens, TCB spending is unlikely to affect U.S. exports to that country. Indeed, while TCB funding is not necessarily associated with higher exports in the year delivered, it tends to be associated with increased exports in subsequent years.

In sum, our results show a small but positive association between U.S. exports and royalty and licensing receipts and IPR-related TCB spending. The relationship is somewhat stronger in years following the disbursement of funds. These results are in accord with the very small value of IPR-related TCB spending by the United States. Again, Table 4²³ shows that such TCB funding has been provided to at most 66 specific countries, and accounts for well under 1 percent of all U.S. TCB spending. Half of the spending was for training and workshops, events that one would expect would typically have small immediate impacts on IPR protection and enforcement.²⁴

The results from this approach indicate a positive correlation between where the dollars are spent and exports and royalty and licensing receipts but they do not show causation. That is, it is unlikely that each TCB dollar spent is solely responsible for the additional dollars in U.S. exports and royalty and licensing receipts.

The results are also likely influenced by a number of factors that drive exports, such as market size, income levels, shipping costs, tariffs, and sophistication of firms and consumers, among others. For example, recipient countries tend to be developing countries that have recently signed an FTA or some type of a trade and investment agreement with the United States that will presumably result in increased trade or further boost relatively high trade growth rates.²⁵ Further, trade capacity-building efforts are undertaken by a number of countries and multilateral organizations, and TCB spending is also likely to have a positive impact on U.S. exports. However, data does not exist for the value of non-U.S. IPR-related TCB spending, so we do not distinguish in this Report the impacts of U.S. TCB spending on U.S. exports separately from the impacts of non-U.S. TCB spending on U.S. exports.

²³ *Infra* Appendix A (Sources and Types of U.S. Government Assistance – Overview).

²⁴ We looked also at the impact that TCB spending might be having on recipient countries' IPR protection and enforcement regimes. However, our examination found no clear statistical relationship between TCB funding and the strength of a country's IPR regime, as measured by Park or Economist Intelligence Unit index (the correlation is near zero). In other words, TCB spending does not appear to be directly associated with a country strengthening its IPR regime in ways that would be measured by standard indices, but may be one of many factors that contribute to a country's IPR regime.

²⁵ Similarly, the European Union aims TCB efforts primarily towards countries with which the European Commission plans potential regional Economic Partnership Agreements. *See* European Commission 2006.

Countries that receive IPR-related TCB funding are also typically receiving non-IPR related technical assistance that may also affect U.S. export performance. In addition, a number of other factors affect trade flows particularly for developing countries, including global economic growth, fluctuations in world prices, poverty reduction, rebounding from the global downturn following the 2001 terrorist attacks, and the second downturn associated with the global financial crisis in 2008. Those factors are not precisely captured in our modeling approach.

6. Case Study Amplification

The econometric results suggest a small but positive association between IPR-related TCB spending and U.S. exports to the recipients. The results also suggest a small, positive relationship between IPR-related TCB spending and royalty and licensing receipts from recipients. Country-level aggregate data was used for the empirical analysis.

To ascertain whether this relationship exists when considering individual companies, we interviewed officials of IP-reliant companies exporting to, licensing in, franchising in, or otherwise doing business in TCB recipient countries, as well as other interested parties. Our goal was to understand how technical assistance spending on IPR issues relates to their business activities and decision-making about whether to invest and do business in a developing country. We conducted on-site interviews in the United States as well as Hong Kong, Korea, Singapore, and Vietnam.

We elected to visit Hong Kong and Singapore because regional corporate headquarters for many U.S. businesses which operate in Southeast Asia, a region which is becoming increasingly important economically, are located in these two countries. Similarly, we sought to obtain historical and comparative information from a market that has transitioned from developing to developed (South Korea) and one that is undergoing significant advancement now despite its clear developing-country status (Vietnam).²⁶

We interviewed a wide range of U.S. IP-reliant companies and other interested parties in selected markets. We worked closely with the U.S. Foreign Commercial Service and AmCham to identify entities to provide input related to the report. To obtain a broad cross-section of views, we met with a range of entities, including services providers, manufactured goods producers, U.S. and foreign government officials, trade associations, importers, and U.S. state trade development offices.²⁷ The category “services providers” includes businesses that

²⁶ In the course of our on-site interviews, we elicited relevant business information regarding China, some of which is included in this Report. A full examination of China and how IPR-issues impact the decision on whether and how U.S. companies do business there is beyond the scope of this Report, but it is a topic area that deserves attention.

²⁷ The names and affiliations of interviewees are contained in Annex B.

market directly to consumers (business to customer) as well as business consultants, attorneys, and mediators that service primarily business entities (business to business). We met with these types of service providers, as well as foreign government officials charged with attracting foreign direct investment, because we believed such entities may represent or communicate regularly with U.S. entities that would have an opinion concerning the subject of the report. These interviews revealed the following:

a. *How U.S. Companies Handle IPR Issues in Foreign Markets*

Companies are often more willing to sell IP-sensitive products in a country with weak IPR protections than manufacture such products in the same countries. This is because once a product is manufactured, it can be purchased, transported anywhere (including to a country with poor IPR protections), and copied. Recognizing this, certain software manufacturers and manufacturers of complex goods reported that they have little reason to avoid selling their products in markets with weak IPR protections.²⁸ Some interviewees reported that they also had little reason to refrain from manufacturing in countries with weak IPR protections, so long as the manufacturing did not involve putting a trade secret at risk.²⁹

However, many companies find it necessary to locate even manufacturing involving sensitive trade secrets in countries with poor IP environments despite the potential for theft. They find the risk worthwhile because these nations often offer cheaper labor costs, fewer environmental restrictions, lower cost of raw materials, *etc.* The issue for these companies becomes not whether to manufacture, but rather how to do so in a manner that adequately protects their IPR.

For some interviewees, the solution is to compartmentalize the production process, *i.e.*, to only produce elements of the product that do not contain trade secrets in the weak IP-environment. The company then finishes production elsewhere in a country with stronger IPR controls.³⁰ This is commonly known as “segmenting production.”

We were also advised that some companies manufacture in a weak IPR-environment and simply accept that their IP is likely to be stolen. Companies are often willing to do this if the stolen IP is likely to quickly become obsolete.³¹ This

²⁸ The statement is based on discussions with representatives of GE and Everett Knight Ltd.

²⁹ Of course, those interviewed noted that companies would likely refrain from manufacturing in a country with weak IPR protections when trade secrets may be divulged in the manufacturing process. For instance, one interviewee reported that lower-end Harley-Davidson products that do not employ significant IPR in the manufacturing process, such as jackets, are manufactured in China. Reportedly the company refrains from manufacturing higher-end motorcycles there (interview with Cyril Chua, ATMD Bird & Bird, Singapore).

³⁰ *Id.*

³¹ Interview with Phillip Overmyer, Chief Executive, Singapore International Chamber of Commerce (discussing this technique reportedly being used in China by a leading U.S. company).

situation could occur with high-technology products that have relatively short life spans in the marketplace and the products will be quickly supplanted by the next generation of products.³² The situation is made more complicated if the prior generation product maintains some market share, such as with consumers who cannot afford the higher-priced newer generation, but can purchase the older, less expensive version.

b. *Technical Assistance Programs Improve the Business Environment*

Training was most frequently cited by our interviewees as being responsible for improving the business environment in IPR-weak countries. This may be because U.S. government trainings are often publicized, and the events typically solicit private sector participation. By contrast, longer-term projects may be handled by contractors that may not actively solicit private sector input. Longer-term programs may also delve into areas deemed too technical to interest businesses on a day-to-day basis. Although interviewees were generally positive in their assessment of training programs, some cautioned that companies are not moved by the training in IPR itself but rather by the results such training delivers.³³

IPR training can help improve the business environment in perceived IPR-weak markets in two main ways: it can allay concerns about anticipated legal or procedural changes, and it can help to improve enforcement of IPRs. There were two instances cited to us in our interviews which show how training and similar events improve the business environment through enhanced IPR protection.

Russia, for example, had a number of stand-alone measures on intellectual property and had developed practices and procedures, which were understood by the judiciary. When a new law was passed which consolidated all IP laws and procedures in the civil code, there was a fear that the existing procedures would not carry over, causing cases to be delayed or fail because of uncertainty as to how to apply the new law. To help alleviate these concerns, an IPR roundtable was organized in November 2007 by the U.S. and E.U. Ambassadors. This roundtable was followed up by other events across Russia in which hundreds of judges, prosecutors and other officials have taken part. These other, follow-on events had the support of the General Prosecutor's Office, the Ministry of Interior, and the Judicial Academy of Russia.³⁴

Similar concerns regarding the effects of adapting to new procedures for trying IP cases surrounded the transfer of jurisdiction of IP cases in Vietnam from the National Office on Intellectual Property to the judiciary. However, a training

³² This occurs often with items such as cellphone, tablets, *etc.*, where the next generation comes out in a relatively short period of time and consumer demand for the latest models undercut pricing on the prior generation.

³³ Interview with Mike Rowse, Managing Director, Stanton Chase International, Hong Kong.

³⁴ Comment by Chris Oldknow of Microsoft on November 18, 2011, supplemented in follow-up email dated March 5, 2012 (on file with IIPJ).

program reportedly helped to educate judges and improve the handling of IPR cases, alleviating these fears.³⁵ These events show how IPR trainings can respond to and successfully address specific IP issues that could be problematic to the business and legal communities of a target country.

The foregoing examples show the long-term benefits of even short-term interventions, such as training events. The long-term benefits of training are also seen in Singapore, where interviewees reported that IPR protections and U.S. government technical assistance were crucially important issues when the U.S.-Singapore Free Trade Agreement was being negotiated. At that time, USPTO provided regional trainings which Singaporean representatives attended. Singapore's IP laws were strengthened, which enabled the development of an active pharmaceutical industry in Singapore;³⁶ companies such as Bristol-Myers, Glaxo Smith Kline, and Schering-Plough now have operations in Singapore.

The business community's awareness of the efficacy of training is evidenced by a recent recommendation to USTR. In a submission to USTR as part of the "Special 301 review process,"³⁷ the Vietnam AmCham (Hanoi Chapter) pointed out that in the context of a huge trade surplus that Vietnam enjoys in its trade with the U.S., the fairness of Vietnam's policies and practices regarding IPR is a concern for U.S. companies which are already doing, or wishing to do, business with Vietnam, and that in matters relating to judicial enforcement of IPR and training of judges, "Foreign companies remain concerned about the level of experience Vietnamese judges have in matters involving IPR." AmCham also pointed out that to obtain TRIPs standards of relief for IPR infringement, IPR owners needed access to judicial remedies such as injunctive relief and monetary damages. In addition to suggesting several changes to Vietnam's Civil Proceedings Code to obtain such relief, AmCham recommended that Vietnamese judges should be trained in these kinds of judicial relief.³⁸ This request for judicial training provides recognition that training and capacity building are important contributing factors in improving the environment for IPR and for business generally.

Businesses support training sessions in part because they enable companies to interact closely with government officials, which helps them establish relationships. Increased local contacts, in turn, help companies succeed in

³⁵ Interview with Orsolya Szotyory-Grove and Do Anh Tuan of the Vietnam office of the law firm of Russin and Vecchi. The training was conducted by the USAID-funded Support for Trade Acceleration or STAR Project, which is implemented by contractor Development Alternatives, Inc. (DAI).

³⁶ Interview with Arturo Hines, Economic Officer, U.S. Embassy in Singapore, and Chia Swee Hoon, Senior Commercial Specialist, U.S. Commercial Service, U.S. Embassy in Singapore.

³⁷ Section 182 of the Trade Act of 1974 (19 U.S.C. 2422) requires USTR to identify countries that deny adequate and effective protection of IPR or deny fair and equitable market access to U.S. persons who rely on IP protection. The provisions of Section 182 are commonly referred to as the "Special 301" provisions of the Trade Act. Section 301 is described more fully in Addendum B.

³⁸ USTR 301 Submission of AmCham Vietnam (Comment of Adam Sitkoff), February 10, 2012.

protecting their IP or selling their products in a new market.³⁹ Trainings may also lead to specific action by foreign governments, as reportedly occurred in Bosnia. In that situation, the U.S. Department of Justice regional attaché based in Sofia, Bulgaria, organized a training in 2010 for state police and general prosecutors. As part of this training, fact patterns were discussed so that attendees could get a clear idea of empowerment and accountability. As a result of the training, cases which had not been addressed because of confusions over these issues now moved forward. Our interviewee credits the training with the fact that the court in Bosnia and Herzegovina ruled for the first time on a copyright violations case.⁴⁰ This court action was cited by the European Commission as an example of Bosnia's progress in IPR, an area important to Bosnia's effort to join the E.U. (European Commission 2011).

The foregoing paragraphs provide two examples of how trainings in developing countries can help foreign companies doing business there. The trainings can help to improve enforcement of IPR (see example from Bosnia) and improve judges' ability and confidence to decide cases (see examples from Russia, Bosnia, and Vietnam). Our interviews also revealed that businesses benefited when the government and the private sector (including foreign companies) can meet and become acquainted and thus better able to work together, where knowledge of best practices can be disseminated, and where IPR institutions can be strengthened.

c. Companies Participate in Technical Assistance Programs

Many interviewees spoke about their awareness of and participation in U.S. government training events. For example, representatives from one major IP-reliant multinational reported that decision-makers were aware of TCB programs.⁴¹ Further, company representatives had participated in numerous training programs, spanning three different continents. The programs were of particular value to the company due to connections to IP offices that the programs helped them develop.

Numerous other interviewees shared similar stories, sometimes expressing a deeper involvement. For example, a large software company reported being involved in the planning and content of trainings their employees attended. However, the company did express that it had experienced a problem from their involvement with one training program: other attendees developed an expectation that the company would provide technical support.⁴²

d. Involving Local Stakeholders Improves Program Effectiveness

³⁹ Interviews with Microsoft (citing training for patent examiners), November 11, 2011; and Dolby Laboratories, December 15, 2011.

⁴⁰ Comment by Chris Oldknow, Attorney, Worldwide Sales Group, Microsoft, on November 18, 2011, supplemented in follow-up email dated March 5, 2012 (on file with IIPJ).

⁴¹ This company spoke with us under the condition that it remains anonymous.

⁴² Comment by Peter Fifka, Senior Program Manager, Europe and the Middle East, Microsoft, on November 18, 2011.

Interviewees suggested that U.S. technical assistance programs that focus on IPR have a greater likelihood of success if they are able to identify and involve a local counterpart who can provide first hand testimony on how greater IP enforcement assists local industry.⁴³ For example, the Motion Picture Association of America (MPAA) involved the Hong Kong film and television industry in advocating for better IPR protection. The local government was more attentive to the issue due to the involvement of the local industry.

Chambers of Commerce are often key allies in promoting good IPR practices. The Vietnam European Chamber of Commerce (EuroCham) issues position papers and periodically produces a White Book which deals with a wide range of issues, including IPR. The Vietnam EuroCham's 2012 White Book has already been cited above, and as detailed earlier, the 2012 White Book section on IPR asserts that Vietnam's goals *vis-à-vis* foreign direct investment depend on effective IPR enforcement.⁴⁴

Similarly, the AmCham in Hanoi, Vietnam sponsored a conference in November 2006 on Vietnam's new Law on Intellectual Property that entered into effect on July 1, 2006. The goal of the conference was to allow foreign companies to voice their concerns about IP issues in Vietnam, notably enforcement, and to provide recommendations directly to government officials.⁴⁵

Recently, a series of "Working Groups" was established in 17 U.S. Embassies to review and plan IP programs in their respective countries of postings. These Working Groups are made up of the various U.S. government personnel posted in the country who are involved with matters in which IP has an effect or plays a part.⁴⁶ None of the non-U.S. government persons to whom we spoke mentioned these Working Groups or that their views had been considered by the Working Groups. This could be the result of the fact that the Working Groups are relatively new, and that they are "governmental inter-agency" in nature.⁴⁷

⁴³ John Medeiros, Deputy Chief Executive Officer and Director of Regulatory Affairs, CASBAA and Sam Ho, Managing Director and General Manager of IFACT-GC, February 2, 2012.

⁴⁴ See *supra* Section 2.b and footnote 7.

⁴⁵ U.S. government involvement can be seen in this event as well. Speakers included Jennifer Ness, Regional Intellectual Property Officer, U.S. Embassy Bangkok, Commercial Section (the USPTO "IP Attaché" in Bangkok at the time); Peter Fowler, then Senior Counsel for Enforcement, USPTO and currently IP Attaché in Bangkok; and Hank Baker, Senior Intellectual Property Advisor for the USAID-funded STAR Project in Vietnam.

⁴⁶ David Drinkard, Foreign Service Officer, Office of International Intellectual Property Enforcement, U.S. Department of State, March 7, 2012.

⁴⁷ A governmental inter-agency group is one which is normally comprised only of representatives of governmental departments and agencies. Since it is not open to non-governmental organizations, the matters discussed and decided might not be publicly available.

e. *Companies Receive Insufficient Notice of Technical Assistance Programs*

In many cases companies received little advance notice that U.S. government technical assistance programs were being conducted. Our interviewees stressed that, while they believe participation would benefit their company, company representatives need significant advance notice in order to attend most programs.

For example, representatives from one company that actively participates in technical assistance programs reported that their company has developed its own spreadsheet to track training events based on information that employees had managed to cull from government websites, but which had to be supplemented from the company's own sources.⁴⁸ Hopefully, this will be remedied with the introduction of the new USPTO website on U.S. government training.⁴⁹

Another company⁵⁰ mentioned that it receives its notifications *ad hoc* from its contacts at USPTO, USTR, and various U.S. embassies and claimed that employees have been forced to miss events due to late notice.

Company representatives in field offices also reported being affected by a lack of adequate notice. An interviewee in India gave high marks to U.S. government training programs there but lamented that these trainings were not sufficiently publicized. He claimed that he received notification too late to be able to attend and participate in more than one event.⁵¹

6. Conclusions and Recommendations

The econometric results suggest a positive correlation between IPR-related TCB spending and U.S. exports to those recipients and a positive association between IPR-related TCB spending and royalty and licensing receipts by U.S. firms from TCB recipients. The magnitude of the relationship is small, and the econometric results do not suggest a causal relationship. There are likely other factors contributing (directly or indirectly) to these increases in exports and royalty/licensing transactions. Further analysis is necessary to understand the specific channels through which this occurs.

A number of our interviewees described numerous benefits of U.S. government technical assistance on intellectual property, including improving the business environment in developing countries and assisting companies in their business relationships in those countries. Companies reported that trainings enable

⁴⁸ Interview with Bonnie McNaughten, Senior Attorney, Worldwide Sales Group, Microsoft, on November 18, 2011.

⁴⁹ The website can be found at www.usipr.gov. It is an excellent website, although most agencies we interviewed (*see* Addendum B) have not yet posted their training events (website viewed on April 22, 2012).

⁵⁰ Interview with the company that requested anonymity on January 19, 2012.

⁵¹ Interview with Sanjay Gajjar, Consultant to Dolby Laboratories, November 21, 2011.

them to meet and establish relationships with local officials with whom they deal. As stated earlier, “increased local contacts...help companies succeed in protecting their IP or selling their products in a new market.”⁵² Technical assistance has also helped improve the abilities of judges to handle IP matters, such as adjudicating copyright violations.⁵³ In addition, long-term projects such as the STAR Project in Vietnam⁵⁴ have helped train judges in IPR matters and to write IP legislation. These long-term projects improve the business environment and make investing in or operating in the developing country more attractive.

Interviewees told us that improving the IPR environment is important in order for a country to move from low-end production to high-end production (and hence more value-added production).⁵⁵ Improving IPR in developing countries would thus help U.S. businesses establish more sophisticated IPR-sensitive operations in these countries. This point is borne out by a study for the World Bank (Mansfield 1994), described more fully in Section 1.b, which pointed out that while IPR was a factor for all industries in their foreign investment decisions, IPR weighed more heavily for those types of investment that transferred more technology. This point is also buttressed by the various ways that companies protect trade secrets or handle the likelihood that they might be misappropriated. In this Report,⁵⁶ we described “segmenting production,” in which companies placed low-end production in weak-IPR countries and high-end production, with more added-value, in countries with stronger IP environments. Improving IPR protections in a developing country would help encourage companies to locate higher-end, higher added-value production in that country.⁵⁷ Singapore was mentioned as a country where an improved IPR environment has led to high-end production.⁵⁸

Although scholarly research and interviews with companies suggest that technical assistance in intellectual property has had an effect on investment decisions, we did not hear from any company that IPR-related technical assistance increased exports or licensing or franchising fees from developing countries by itself. This does not mean that in individual cases the technical assistance did not play a role in such increases. However, just as with the econometric analysis in this Report, there are many factors which would enter into such increases, and it is highly unlikely that any one factor, such as technical assistance in IP, could be isolated as the cause of such increase. In addition, companies are obviously

⁵² Section 5.b and footnote 39.

⁵³ See the discussion in Section 5.b concerning a training in Bosnia and how it empowered judges to rule in a case involving copyright violations.

⁵⁴ See Section 5.b and footnote 38.

⁵⁵ See Section 5.a, *supra* p. 13.

⁵⁶ See Case Study Amplification, Section 5.a, *supra* pp. 13-14.

⁵⁷ See the discussion in Section 5.b, *supra* pp. 14-16.

⁵⁸ Farra Siregar, Managing Director, Dupont Vietnam, mentioned R & D facilities being located in Singapore despite its being more expensive than other countries in Southeast Asia. (February 9, 2012) See also the discussion under Section 5.a above (Case Study Amplification) relating to the pharmaceutical industry in Singapore.

unwilling to divulge proprietary information, and thus shied away from discussing increased exports.

Since technical assistance can and does have salutary effects for U.S. businesses, it is possible to offer some recommendations, drawn from the modeling and interviews, of ways in which U.S. IPR-related TCB can more effectively promote U.S. exports and business in foreign countries. Our recommendations include:

a. Evaluate Programs to Develop Best Practices

We have heard from the U.S. Government that there is insufficient monitoring and evaluation of technical assistance. A State Department interviewee mentioned that embassies should follow up and report back on programs held in-country.⁵⁹

The importance of monitoring and evaluation of training programs and the development and dissemination of best practices was recognized by the GAO, which found that “[w]hile USAID is beginning to incorporate the evaluation’s results in its training, it has yet to develop plans for disseminating best practices to missions and offices on the methods they may use to better manage and assess their activities. Furthermore, it has not made plans for conducting evaluations on an ongoing basis.” (U.S. Government Accountability Office 2011). Subsequent to that GAO finding, USAID issued a report which “presents findings of a three-phase, cross-country evaluation of U.S. government trade capacity building, with a special focus on the segment of this portfolio that... USAID administers” (USAID 2010).⁶⁰

We previously mentioned the creation of “Working Groups” in 17 Embassies which review and plan IP programs in their respective countries of postings.⁶¹ The monitoring and evaluation these Working Groups perform can serve as a basis for establishing “best practices” for training and capacity-building programs. Increasing the number of Embassies employing “Working Groups” would expand the number and types of programs from which to learn “past practices” and provide guidance for future events.

b. Improve Private Sector Outreach and Notification

Interviewees reported that U.S. companies and others in the private sector are aware of U.S. government technical assistance. However, companies often become aware of training events too late to attend or to become actively involved in

⁵⁹ Interview with JoEllen Urban, Senior Economic Advisor, Office of Intellectual Property Enforcement, U.S. Department of State, October 14, 2011. This is also covered in Addendum B in the discussion of the U.S. State Department.

⁶⁰ The quoted language is from the Preface to the Summary of the USAID report.

⁶¹ See Section 5.d, *supra* p. 17.

the trainings.⁶² As a result, these programs lose out on the experience that these company representatives possess.

The company representatives we spoke with indicate that they are eager to participate in future technical assistance programs.⁶³ By improving private sector outreach and notification efforts, these companies would be able to attend and actively contribute to more programs. Improved private sector outreach and notification would also help enable the development of training programs which would include the interests of local private sector stakeholders as well.

A major step in notification has been taken with the introduction of the new U.S. government website⁶⁴ devoted to IPR training mentioned earlier in this Report. It is well-designed and provides a great deal of information, such as the subject matter and description of the training, when and where it will take place, the lead agency, the funding agency and participating agencies, as well as the name and contact information of the person who can provide further information. The website is a welcome addition, as it fulfills a great need. However, at present, not all government agencies which are listed in the “drop-down” box for “Activity Agency” have information posted on the website. It would also be advantageous for those interested in training activities if U.S. government websites could arrange for inclusion of training information from other organizations, *e.g.*, from WIPO’s Technical Assistance Database.⁶⁵

c. Focus on Training Programs and Local Stakeholders

Companies perceived training programs to be the most effective form of U.S. government technical assistance. Numerous companies reported that they participated in training programs and that these programs had directly improved their confidence in the developing or emerging markets in question. Interviewees reported a variety of reasons for why these programs were effective, such as the participation of the private sector. Additionally, companies believed that they benefited from these programs because they enabled them to establish relationships with local officials.⁶⁶

The views of individual companies were reflected in associations such as AmCham Vietnam and EuroCham Vietnam. In the case of Vietnam, training of judges was seen as crucial in helping create an environment in which foreign investors would feel more secure in making or maintaining investments in Vietnam. The improved environment also has the potential to help the country move to higher-level, more added-value investments.⁶⁷

⁶² See Section 5.e, *supra* p. 18.

⁶³ See Section 5.c, *supra* p. 16.

⁶⁴ *Supra* footnote 49.

⁶⁵ The Technical Assistance Database can be found at <http://www.wipo.int/tad/en/>.

⁶⁶ *Supra* p. 16.

⁶⁷ See *supra* p. 3 and pp. 13-14.

Companies also noted the value of developing the support of local stakeholders.⁶⁸ Many interviewees asserted that IPR enforcement tends to improve in developing economies as local businesses grow in sophistication and demand enforcement. Gradually, governments begin to improve IPR protections to spur local economic growth and, as a side effect, protect foreign IPR as well. This view was voiced both by the private sector and by the government, with interviewees citing China as an example of a country where the need to protect local IP would hopefully lead to greater protections for foreign IP, too.⁶⁹ In addition, one interviewee noted that involving local interests outside the government is necessary to create a culture that respects intellectual property.⁷⁰

Based on these observations, we believe that U.S. government agencies should focus on providing training programs which address both U.S. interests and those of local private sector stakeholders. These programs will help to develop the target countries' protections, while providing U.S. companies with the ability to develop local contacts.

d. Devote More Resources to Technical Assistance Programs

Addendum A⁷¹ examines the sources and types of U.S. government assistance and shows that spending focusing on TRIPS-related projects constitutes, in most years, less than 1 percent of total TCB funding. Despite this low level of funding, U.S. agencies provide a great deal of technical assistance and training (see Addendum B).⁷² For example, in 2009 alone, the U.S. State Department's Bureau of International Narcotics and Law Enforcement (INL) held 18 training events for judicial officials from 21 developing countries. Annual budgets have been averaging \$2-3 million, with recent spending being reduced from prior years' levels.

As explained in Section 5,⁷³ the general consensus is that U.S. government technical assistance and training have been beneficial not only to the recipient countries, but to U.S. companies as well. Interviewees cited the following specific benefits:

- fostering relationships between local persons and U.S. companies (thus facilitating their doing business in developing countries)
- improving enforcement of IPR (*e.g.*, empowering judges in Bosnia to rule on a copyright case and empowering judges in Vietnam to handle IP cases)

⁶⁸ See Section 5.c, *supra* p. 16.

⁶⁹ Interview with John Weresh, General Manager, Patent Operations, Microsoft, on November 18, 2011, and with Rich Halverson, Outreach and Training Unit Chief, National IPR Coordination Center, Immigration and Customs Enforcement, on October 18, 2011.

⁷⁰ Email from Jose Meythaler, *supra* footnote 10.

⁷¹ See *infra* p. 25.

⁷² See *infra* p. 30.

⁷³ See *supra* p. 12.

- providing training to local counterparts which helped improve institutions and their staffs (*e.g.*, patent examiners)
- helping countries move to higher-end, greater added-value production and activities (*e.g.*, Singapore and its pharmaceutical industry and R&D facilities)

Given the benefits which have been reported, the increasing importance of intellectual property in today's global economy, and the modest sums which have been spent on U.S. government technical assistance and training efforts, a strategic increase in funding, particularly of training programs, would undoubtedly enhance the results which have been obtained until now.

Given the current low level of TCB funding,⁷⁴ even doubling in funding would mean that IP-related funding would constitute only about 2 percent of total TCB funding.⁷⁵ In order to stretch limited resources, the U.S. government should consider formalizing the coordination between the agencies providing technical assistance and training on intellectual property. Coordination presently is good, and as shown in Addendum B, U.S. government agencies cooperate well. A more coordinated approach would help create even better coordination and use of funds. This coordination need not reduce any agency's current role and programs. Currently, joint agencies and efforts such as the IPR Center and the White House's Office of Intellectual Property Enforcement Coordinator (IPEC) provide ways to cooperate and coordinate efforts and avoid duplication.

⁷⁴ See *infra* p. 25.

⁷⁵ See Addendum A, Table 4 and discussion following Table 4.

ADDENDUM A: TYPES AND TARGETS OF U.S. GOVERNMENT ASSISTANCE

Many countries, including the United States, offer technical assistance to selected developing countries in an effort to assist these countries in implementing effective IPR regimes. They do so because of a clear commitment to assist developing countries improve their systems, such as the commitment articulated in TRIPS Article 67. They also do so because they believe that an improved IPR-regime in a developing-country market is in the interests of their own companies that sell goods and services in that developing-country market.

U.S. technical assistance and capacity building efforts tend to include both general and specialized training. The types of technical assistance range broadly from assisting with the preparation of draft IP laws to providing support for modernizing IPR administration offices to promoting domestic innovation, creativity, and international patent cooperation and information services. These types of technical assistance are offered also by the European Commission (EC), Japan, and Australia. In some cases, they are also offered by international organizations (*see* Table 2).

Table 2
Comparison of Key Types of IP Technical Assistance by Donor Organization

	Training & Human Resource Development	Advice on IP Legislation and Policy Reform	Organization Development & Automation	Promotion of Domestic Innovation and Creativity	Patent Information Cooperation	Research & Dialogue on IP Issues
Bilateral Governmental Donor Agencies						
United States	X	X	X	X	X	X
European Commission		X	X	X	X	
Japan	X	X	X	X	X	
Australia	X	X	X	X	X	
International Institutions & Regional Organizations						
WIPO/UPOV	X	X	X	X	X	X
WTO	X	X				
WHO	X	X				X
UNCTAD	X	X				X
World Bank	X	X	X	X		X
European Patent Office	X	X	X	X	X	X
Non-Traditional Donors and Providers						
ICTSD		X				X
South Centre		X				X
Quaker UN Office						X
IDRC		X				X
Medicines Sans Frontiers		X				X
OXFAM		X				X
IIPI	X	X	X	X		X

Source: Pengelly 2005; amplified by authors.

Typically the programs offered by the EC and Japan are medium- or long-term projects, meaning that they last for a period of several years. By contrast, U.S. IPR projects are generally short-term or single event programs, although the U.S. does sponsor some medium- and long-term projects.⁷⁶

Currently the U.S. Government provides technical assistance, training, and capacity building on IPR issues to foreign governments through many agencies.⁷⁷ Two key agencies involved in these efforts are USAID and USPTO, although their foci differ somewhat. Other agencies are also involved, and their efforts are described elsewhere in this Report.⁷⁸

A significant feature of U.S.-funded IPR technical assistance programs is the interaction of a number of different U.S. agencies and business associations in the funding, design, and delivery of activities. As discussed in greater detail below, USPTO conducts a vast amount of IPR-related technical assistance, notably through its Global Intellectual Property Academy (GIPA), although development assistance is not considered by many to be the primary function of the agency. Instead, USAID is the U.S. government entity principally responsible for development assistance.

In 2005, the GAO concluded that USAID provides 71 percent of all U.S. trade capacity assistance funding (GAO 2005). The fact that this represents the vast majority of technical assistance funding by the United States government helps in understanding how the United States formulates its technical assistance programs concerning IPR. USAID's technical assistance involving IPR is usually a component of larger programs that address a broad swath of development issues. For example, when a commercial and legal reform program includes an IPR component, such as in Vietnam, often the IPR portion is part of a larger program dedicated to enabling the developing-country trading partner comply with certain negotiated IPR treaty commitments.⁷⁹

Although the types of assistance varies from year-to-year, for the period 2002 to 2009, TCB spending by the United States on TRIPS focused largely on training and workshops. Over that period, TCB spending for these activities accounted for over 51 percent of total TCB spending on TRIPS-related activities. Only about one-third of total spending went to providing assistance in drafting laws

⁷⁶ Examples of longer term projects include those conducted by USAID in Vietnam and the Andean region.

⁷⁷ For example, U.S. government agencies that provide IPR technical assistance to developing countries include the U.S. Department of State, the U.S. Department of Justice, and the U.S. Department of Commerce (through its Commercial Law Development Program (CLDP)).

⁷⁸ See Addendum B for more information.

⁷⁹ USAID programs on competitiveness are also examples of a large program with a small IPR component. Often such programs will include a component on "branding." See also Lom (no date) (explaining how to use IPR to create value for business, including what constitutes "a brand" and what makes a brand successful).

and establishing the government infrastructure needed to implement and enforce IP laws and regulations.⁸⁰ It is important not to draw broad conclusions about spending patterns simply by examining one year’s spending in isolation. This is because spending allocated to a project in one year may fund the project for several years. For example, TCB spending by the United States in Egypt varies considerably from year-to-year, and large values of spending in one year actually represent activity taking place over multiple years (*see* Table 3).⁸¹

Table 3
U.S. TCB Budgeting on TRIPS Activities in Egypt, 1999-2009
 (Thousands of U.S. \$)

1999	\$147
2000	2,581
2001	2,753
2002	1,450
2003	0
2004	170
2005	0
2006	375
2007	4
2008	22
2009	0

Source: USAID Trade Capacity Building Database

The value of U.S. TCB spending is relatively small. Table 4 shows that the value of TCB spending focused on TRIPS-related projects and the number of recipient countries fluctuate considerably over time, and spending represents a minimal share of total U.S. TCB spending overall, in most years less than 1 percent of total TCB spending.

⁸⁰ Data derived from USAID Trade Capacity Building data base. 15 percent of total spending was not sufficiently described in the database to permit classification into a “training” or “hands-on assistance” category, so it is assumed here that such spending is a mix of these two activities.

⁸¹ Although there is no funding shown for 2003, 2005, and 2009, this does not mean that there were no IPR-related TCB activities during those years. Instead, funding shown in one year—such as the substantial funding shown for 2000, 2001, and 2002—is often dedicated to multi-year activities. The funding shown for the period 1999-2002 is likely TCB funds allocated in 1999-2002 but ultimately used for IPR-related activities in later years where there is no funding shown in the TCB database, such as 2003 and 2005.

Table 4
U.S. TRIPS-Related Trade Capacity-Building (TCB) Projects, 1999-2009
 (Thousands and Percent)

	No. of Single Country Grants	No. of Regional Grants	Value of Projects	Share of All U.S. TCB Spending
1999	7	0	\$995	0.3%
2000	7	4	3,266	0.6
2001	21	2	5,022	0.8
2002	30	5	6,215	1.0
2003	21	4	7,028	0.9
2004	17	7	4,709	0.5
2005	12	2	1,526	0.1
2006	18	5	6,429	0.5
2007	31	10	7,014	0.5
2008	66	5	4,926	0.2
2009	31	4	2,759	0.2

Source: USAID, Trade Capacity Building Database,
http://tcb.eads.usaidallnet.gov/query/do?_program=/eads/tcb/fundingByCategory

TCB expenditures on IPR-related projects are spread over a range of regions and countries. The single largest regional recipient of spending for these projects is the Middle East and North Africa, which accounts for 27 percent of U.S. outlays from 1999-2009. The next largest spending amounts are for Central and Eastern Europe and the former Soviet Union (19.0 percent), non-country specific global spending (15.5 percent), Asia (12.4 percent) and Sub-Saharan Africa (11.8 percent). Central America, South America, Latin American, and the Caribbean combined account for 14.4 percent. U.S. FTA partners (including Mexico) received just 11.5 percent of total TCB IPR-related spending over the period. Between 2002 and 2009, 96 countries received TCB funding for IPR projects. Egypt received the highest amount of \$2.0 million, although total TCB funding amounts vary considerably between countries. Table 5 lists the countries that received amounts over \$200,000.

Table 5
Cumulative TCB Funding, 2002 to 2009, for
Countries Receiving More than \$200,000

(Thousands)

Country	TCB Funding
Egypt	\$2,020.9
Jordan	1,589.6
Morocco	1,266.5
South Africa	1,203.3
Ukraine	1,105.2
Nigeria	1,048.8
Macedonia	950.0
Philippines	863.6
Mexico	692.5
Vietnam	691.4
Iraq	672.3
Russia	663.0
Bulgaria	647.4
India	614.8
Thailand	606.4
Bosnia and Herzegovina	593.2
Croatia	562.5
Romania	522.5
China	520.9
Albania	487.0
Lebanon	486.0
Indonesia	423.1
Peru	415.0
Pakistan	412.3
Nicaragua	389.6
Colombia	389.0
Paraguay	334.9
Serbia and Montenegro	334.4
Brazil	285.4
Algeria	279.5
Chile	256.5
Serbia	242.0
Bolivia	211.0
Ecuador	205.0
Laos	205.0

Source: USAID, Trade Capacity Building Database,
http://tcb.eads.usaidallnet.gov/query/do?_program=/eads/tcb/fundingByCategory

Over time, conditions and priorities change, and spending patterns reflect these changes. For example, early in the period from 1999-2009, Central and Eastern Europe and the former Soviet Union received a great deal of technical assistance. However, spending patterns changed as many of the countries in those

regions instituted changes, and as priorities shifted attention to countries in other regions.

ADDENDUM B: U.S. GOVERNMENT ASSISTANCE BY AGENCY

As noted in this Report, the kinds of technical assistance provided by the U.S. Government are varied and should be tailored to the situation in each country. However, despite the differences between TCB recipient countries, they share fundamental economic characteristics. Specifically, they tend to be poorer,⁸² have less open trade regimes,⁸³ and have weaker IP protection than countries that do not receive TCB assistance.⁸⁴

1. Agency Activities

A number of U.S. government agencies are involved in providing IP technical assistance related to the unique mission and capacities of the agency. In general, the majority of those efforts involve training, although some longer-term projects are conducted, mainly by USAID. U.S. government agencies will often collaborate on technical assistance programs with each other as well as with government agencies in target countries and private sector stakeholders.⁸⁵ U.S. companies and other parties were generally aware of and approved the trainings, but they were less aware of the longer-term projects.

This addendum contains descriptions of the different kinds of technical assistance provided by selected U.S. government agencies. It is not intended to be an exhaustive listing and description of all U.S. government technical assistance and training, but rather a representative picture of that assistance and training and of agencies providing them.

a. United States Agency for International Development (USAID)

USAID is the U.S. government agency principally responsible for development assistance. Its work in intellectual property usually occurs in the context of larger programs. The following programs are illustrative of USAID's assistance activities.

- (a) In Liberia, the USAID Mission found weak awareness of the existence and benefits of IPR among the population and the government. However, Liberia

⁸² TCB recipients have a dramatically lower per capita average GDP (\$6,400) than non-recipients (\$31,300).

⁸³ TCB recipients have an average tariff rate of 8.3 percent *ad valorem* compared to 3.2 percent for non-recipient countries. The average Trade Freedom Index for recipient countries was 74, compared to 84 for non-recipient countries.

⁸⁴ The average Park index was 3.77 for recipients compared to 4.3 for non-recipients, and the Economist Intelligence Unit index was 2.8 for recipients compared to 4.3 for non-recipients.

⁸⁵ For example, a conference in Kenya ("Enforcement of IP Rights in Kenya: An Interagency Approach with Private Sector Coordination," held in Nairobi from May 17-20, 2011) was organized by the U.S. Department of Commerce's Commercial Law Development Program (CLDP), the U.S. Department of Justice (DOJ), and the U.S. Embassy in Nairobi, in cooperation with the Kenya Anti-Counterfeit Agency.

was required to increase IPR protections in order to join the World Trade Organization (WTO). To help Liberia join the WTO, USAID developed a series of initiatives which it would implement and which would be funded by the Millennium Challenge Corporation's Threshold Program for Liberia. Around \$360,000 out of a total of approximately \$15 million for that Threshold Program is devoted to the IPR programs in Liberia. The IPR project goals are to increase knowledge of IPR in Liberia and the capacity of the Liberian government to protect them through assistance in developing and implementing an IP policy framework, prioritizing recommendations from a 2009 WIPO needs assessment, strengthening IPR enforcement, and providing training to educate all relevant stakeholders.⁸⁶

(b) The Andean Regional Trade Capacity Building (ATCB) Program is a regional effort to "increase trade and investment by promoting the participation of Colombia, Peru, Ecuador, and possibly Bolivia, in global, regional and/or bilateral Free Trade Agreements. Activities include Labor Law Enforcement and Outreach and Intellectual Property Rights Enforcement and Outreach."(USAID, 2010).⁸⁷ The program is aimed at accomplishing the following:

- Implement the IP charter of the U.S.-Peru Trade Promotion Agreement (PTPA)⁸⁸
- Improve the information management system of INDECOPI (Peru's IP Institute)⁸⁹
- Improve technical examinations of patent applications
- Strengthen capacity for IPR enforcement
- Raise awareness of the importance and benefits of IPR

The project began on May 31, 2010, and is scheduled to be completed on August 31, 2013.

USAID technical assistance has helped strengthen institutions in Colombia, where assistance is being provided to the Superintendencia de Industria y Comercio (SIC). SIC handles patent and trademark registrations in Colombia. When the project began, SIC presented the project with an accumulated backlog of 7,936 patent applications (7,400 inventions and 536

⁸⁶ Email dated May 3, 2012, from Michael Boyd, Senior Economic Growth Advisor and Economic Growth Office Team Leader, USAID/Liberia, and Internal Document: Project Implementation Plan for the ATCB Program, provided by Nicholas Klissas, Senior Commercial Law Specialist, USAID in an email dated December 19, 2011 (on file with IIPi).

⁸⁷ Internal Document, *supra* footnote 86.

⁸⁸ The PTPA is the free trade agreement between Peru and the U.S. which entered into force in February 2009.

⁸⁹ Instituto Nacional de Defensa de la Competencia y de la Protección de la Propriedad Intelectual (Institute for the Defense of Competition and Intellectual Property).

utility models). Starting in Fiscal Year 2011,⁹⁰ the project reviewed 1,884 new patent applications for inventions, utility models, and industrial designs. In September 2011, the SIC approached the project with a new backlog of 7,986 patent applications for inventions (7508) and utility models (478). Since September 2011, the project has helped reduce the backlog of chemical, pharmaceutical, and engineering patents by 112 and has helped reduce the backlog of industrial design applications by 334. USAID also supported the development of an outreach campaign by SIC to Colombia's research centers and universities to promote the improved database. ATCB's assistance extended to helping SIC promote IPR as a competitiveness tool.

USAID assistance went beyond helping clear SIC's patent application bottleneck. ATCB undertook an evaluation of SIC procedures to identify other bottlenecks in registering and reviewing IP applications as well as processes for arbitrating IP applications and used the information gained to suggest additional changes. ATCB also helped SIC become an independent, self-financed agency by studying the services and fees of IP organizations in other countries and recommending a fee-for-service structure designed for and adopted by SIC.⁹¹

The foregoing activities indicate the broad range of IP-related initiatives handled by USAID including drafting of legislative materials, organizing administrative offices, training staff, working with judges and police to improve enforcement, and raising awareness of the importance of IP.

b. United States Patent and Trademark Office (USPTO)

USPTO is the federal agency that grants U.S. patents and registers trademarks.⁹² In addition to these tasks, USPTO "furthers effective IP protection for U.S. innovators and entrepreneurs worldwide by working with other agencies to secure strong IP provisions in free trade and other international agreements. It also provides training, education, and capacity building programs designed to foster respect for IP and encourage the development of strong IP enforcement regimes by U.S. trading partners" (USPTO: Who We Are).⁹³

The September 27, 2011 Memorandum of Bilateral Cooperation between the National Office of Intellectual Property of Vietnam and USPTO provides a recent example of cooperation between USPTO and government agencies in target nations. In the Memorandum of Bilateral Cooperation, the parties agree to cooperate in

⁹⁰ The U.S. government's Fiscal Year 2011 ran from October 1, 2010, through September 30, 2011.

⁹¹ Information about the ATCB program was provided by Eduardo Albareda, Trade, Investment, and Finance Specialist, Office of Economic Growth and the Environment, USAID Peru, in a series of emails from February 16-24 and from April 24-May 2, 2012 (on file with IIPi).

⁹² This Report is produced in partnership with USPTO.

⁹³ <http://www.uspto.gov/about/index.jsp>.

training and capacity building and promoting the importance of IP in innovation and economic growth. They also agreed to exchange information on IP registration and enforcement practices.⁹⁴

USPTO offers the vast majority of its technical assistance through its Global Intellectual Property Academy (GIPA). GIPA was established in 2006 and provides programs on IPR enforcement, patents, trademarks, copyrights, and technology transfer. Technical assistance is provided to foreign government officials. In 2008, GIPA provided training to over 4,100 officials from 127 countries. (Training and Education: Global Intellectual Property Academy).⁹⁵ These figures have increased significantly. By the end of FY 2012 there were 140 trainings for foreign government officials in which 9,217 officials from 130 countries participated.⁹⁶

A great deal of training is conducted at GIPA's facility in Alexandria. However, two-thirds of USPTO's programs are conducted abroad. Participants in these programs strongly confirm their effectiveness. In their responses to a recent survey,

- 97.7% of respondents agreed or strongly agreed that they acquired new knowledge and skills from the training they attended.
- 87.4% of respondents agreed or strongly agreed that they were able to apply what they learned in their training to their job.
- 90.8% of respondents agreed or strongly agreed that the training improved their ability to work on IP.
- 81.4% of respondents agreed or strongly agreed that the information they learned is useful to their country.⁹⁷

The State Department, through its INL division,⁹⁸ funds and collaborates with many of USPTO's enforcement-centered programs. The USPTO's budget is relatively modest considering the great number of recipients of its assistance – \$3-4 million is budgeted for the programs, and an additional \$1 million is budgeted for USPTO's IP Attachés.⁹⁹ (Section 5 describes companies and other interested parties' favorable attitudes towards the assistance provided by USPTO's IP Attachés.)¹⁰⁰

⁹⁴ Copy of the September 27, 2011 Memorandum of Bilateral Cooperation was supplied by the USPTO.

⁹⁵ <http://www.uspto.gov/ip/training/index.jsp>. USPTO also offers programs for other parties, including small and medium business owners, U.S. Government officials, and the general public.

⁹⁶ Meeting with Rachel R. Wallace, Director, Global Intellectual Property Academy, USPTO, on November 19, 2012.

⁹⁷ Findings from the GIPA Alumni Pilot Survey (Fiscal Year 2012), p. 16.

⁹⁸ See Addendum B, Section 1.e, *infra* p. 35.

⁹⁹ Meeting with Susan Anthony, Attorney-Advisor, Scott Baldwin, Attorney-Advisor, Jennifer Ness, Attorney-Advisor, and James Housel, then Director, Global Intellectual Property Academy, all of USPTO, on October 13, 2011.

¹⁰⁰ The Intellectual Property Rights (IPR) Attaché Program was instituted in 2006 "to promote high standards of IP protection and enforcement internationally for the benefit of U.S. economic and political interests abroad." There are eight Attachés covering seven regions. The Attachés are posted in Guangzhou, China; Beijing, China; Shanghai, China; Bangkok, Thailand; Rio de Janeiro, Brazil;

c. *Commercial Law Development Program (CLDP)*

CLDP is a program of the U.S. Department of Commerce that was established in 1992 to promote commercial law reforms in developing nations in order to benefit U.S. interests doing business in target nations and the target countries themselves (About CLDP).¹⁰¹ CLDP often partners with other U.S. government agencies to organize workshops and trainings for foreign regulators, judges, policymakers, business leaders, and attorneys from both the public and private sectors (*Id.*). CLDP conducts about 14 programs, which receive two thirds of their funding from the U.S. State Department and one third from USAID. CLDP receives approximately \$10 million per year from these sources; it has no other funding sources. Approximately 20% this funding is devoted to matters involving Intellectual Property.¹⁰²

CLDP often cooperates not only with multiple U.S. government agencies, but with multiple foreign governments to organize regional trainings and workshops. Recent CLDP judicial workshops in Africa provide good examples of these programs. In 2010, CLDP conducted a three-day workshop on adjudicating IP cases with the help of the U.S. Department of Justice, USPTO, the Botswana Administration of Justice, and South Africa's Department of Trade and Industry (CLDP Results in Sub-Saharan Africa).¹⁰³ American federal judges and prosecutors were among the conference's presenters. The workshop participants included over 100 judges and magistrates from Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, and Zambia and representatives of numerous Botswanan government agencies (*Id.*). The conference addressed both the practical skills needed to better enforce IP laws and the policy reasons for protecting IP (*Id.*). A similar conference was held in 2010 in conjunction with USPTO, the East African Community, and the Ugandan Ministry of Tourism, Trade, and Industry. The conference involved over 80 participants from Burundi, the Democratic Republic of Congo, Ethiopia, Kenya, Mauritius, Malawi, Rwanda, Tanzania, Uganda, and Zambia (*Id.*). This conference led to the adoption of interagency mechanisms to combat piracy among the countries of East Africa and a regional targeted IP outreach program (*Id.*).

In addition to collaborative seminars and trainings like those discussed above, CLDP also works with nations on a long-term basis in order to help modernize their IPR enforcement regimes.¹⁰⁴ An example of this type of work can be

Mexico City, Mexico; Delhi, India; Moscow, Russia; and Cairo, Egypt. For more information, *see* USPTO <http://www.uspto.gov/ip/global/attache/index.jsp>.

¹⁰¹ <http://cldp.doc.gov/about-cldp>.

¹⁰² Information about CLDP programs was provided by Steve Gardner, Chief Counsel of CLDP, in an email dated December 5, 2011.

¹⁰³ <http://cldp.doc.gov/about-cldp/results/cldp-results-sub-saharan-africa>.

¹⁰⁴ Often this type of work is done to help a country meet the obligations of the WTO or other free trade agreements. For example, CLDP has helped Tunisia meet its obligations under TRIPS

seen in CLDP's ongoing relationship with the Philippines since 2006. In 2006, CLDP, in collaboration with the Philippine government and the Intellectual Property Office of the Philippines, held a conference on using existing law to combat internet piracy that was attended by over 200 public and private sector stakeholders (CLDP Results in Asia and South Asia).¹⁰⁵ In 2008, CLDP helped the Intellectual Property Office of the Philippines plan and conduct a four-day training workshop for judges in the implementation of IP principles (*Id.*). In 2009, CLDP hosted a workshop to train innovators in the Philippines in technology transfer and helped the Intellectual Property Office of the Philippines set up a website linking to all of the necessary documents for technology licensing (*Id.*).

d. Millennium Challenge Corporation (MCC)

The MCC is a U.S. Government-chartered corporation whose goal is to reduce poverty and stimulate economic growth. Its primary activities sometimes involve IP as a secondary issue. The MCC has two levels of programs: Threshold Programs and Compacts. A Threshold Program is an agreement through which MCC funds targeted policy and institutional reform efforts with the goal of making the country eligible for a Compact. Most Threshold Programs are administered by USAID. (Millennium Challenge Corporation Threshold Program).¹⁰⁶ A Compact is a multi-year agreement between MCC and an eligible country to fund specific programs aimed at alleviating poverty and aiding economic growth (Millennium Challenge Corporation Programs & Activities).¹⁰⁷

There are only two MCC IP-related activities reported in the TCB Database. The first is being implemented by USAID in Liberia and is described earlier in this Addendum in the subsection concerning USAID's activities.¹⁰⁸

The second IP-related MCC program, also a Threshold Program, in Paraguay, involved IP technical assistance as part of a larger project. The goal of the IP component was to improve enforcement of copyrights and trademarks by creating a technical unit. The total estimated budget for the program was \$30.3 million. The budget for the IP component was \$1.9 million, or 6% of the total. Assistance was conditioned on the formation of the unit. Since Paraguay did not sufficiently fulfill its

(CLDP Results in the Middle East and North Africa, <http://cldp.doc.gov/about-cldp/results/cldp-results-middle-east-and-north-africa>), Bosnia and Herzegovina to become a member of the WTO (CLDP Results in Europe and Eurasia, <http://cldp.doc.gov/about-cldp/results/cldp-results-europe-eurasia>), and Morocco to meet its obligations under the US-Morocco Free Trade Agreement (CLDP Results in the Middle East and North Africa, <http://cldp.doc.gov/about-cldp/results/cldp-results-middle-east-and-north-africa>).

¹⁰⁵ <http://cldp.doc.gov/about-cldp/results/cldp-results-asia>.

¹⁰⁶ <http://www.mcc.gov/pages/program/type/threshold-program>.

¹⁰⁷ <http://www.mcc.gov/pages/activities>.

¹⁰⁸ See p. 31.

obligations, the IP component was not funded fully. However, approximately \$200,000 was spent on a public information campaign.¹⁰⁹

e. U.S. Department of State

The U.S. Department of State (sometimes referred to herein as “State”) is a key agency in U.S. efforts to strengthen IPR in developing countries. State’s Office of Intellectual Property Enforcement (IPE) advocates for the effective IPR protection and enforcement around the world. IPE participates in multilateral and bilateral negotiations and discussions on IPR-related issues, provides training and technical assistance funds to help build IPR law enforcement capacity in developing countries, and directs an international public diplomacy initiative to broaden awareness of IPR issues such as counterfeit medicines and internet piracy (U.S. Department of State Intellectual Property Enforcement).¹¹⁰

In addition to IPE, State’s Bureau of International Narcotics and Law Enforcement Affairs (INL) provides funding to various agencies that conduct assistance related to IPR enforcement, such as USPTO, DOJ, CBP, ICE, and Missions in host countries. INL-funded training programs are frequently aimed at helping law enforcement agencies and prosecutors combat counterfeit drugs and internet piracy. The typical INL-funded training program lasts 3-5 days and costs between \$100,000 to \$300,000. In Fiscal Year 2011, INL had a budget of approximately \$2.75 million. Since 2004, INL funding has totaled approximately \$22 million.¹¹¹ INL funding has been cut by 50% in the last few years.¹¹²

From 2003 to April 2011, INL funded 100 programs in all regions. In 2009, INL funded 18 training events for judicial officials from 21 developing countries. As an example of the level, scope, and reach of its funding, from 2003 to April 2011, INL provided \$3,389,347 for Intellectual Property Criminal Enforcement Foreign Training and Technical Assistance Programs in Africa. These funds were provided to USPTO, the U.S. Department of Justice, and the U.S. Missions in the host countries.

Section 6.c¹¹³ describes the Working Groups which are maintained at 17 Embassies. These Working Groups review U.S. government efforts at capacity building and training and propose programs for their countries. Their work is intra-

¹⁰⁹ Email from Bruce Kay, Director of Threshold Programs for Latin America, Eastern Europe, and Asia, Millennium Challenge Corporation dated December 7, 2011 (on file with IIPi); Interview with Bruce Kay and Malik Chaka, Policy and International Relations Director, Millennium Challenge Corporation, dated October 5, 2011.

¹¹⁰ <http://www.state.gov/e/eb/tpp/ipe/> (last viewed on February 18, 2012).

¹¹¹ Interview with Carl Schonander, Foreign Affairs Officer, Office of International Intellectual Property Enforcement, U.S. Department of State, January 30, 2012.

¹¹² Interview with JoEllen Urban, Senior Economic Advisor, Office of International Intellectual Property Enforcement, U.S. Department of State, October 14, 2011.

¹¹³ *Infra* p. 33.

governmental. However, the experiences and recommendations provide a useful body of information and a source of “best practices.”

f. International Trade Administration (ITA)

ITA, although involved in IP matters, does not have a specific budget for carrying out technical assistance in IPR. Despite this, ITA does fund IPR technical assistance through Total Economic Engagement (TEE) projects. These are projects that have been funded to fulfill specific, timely goals that are in line with ITA’s priorities, and which fall within the purview of the ITA Market Access and Compliance (MAC) unit. IP falls within this purview.

TEE projects may involve various combinations of interparty, international, and public-private cooperation. For example, ITA and the Commerce Americas Project Team partnered with the National Electrical Manufacturers Association (NEMA) and NAFTA/SPP (Security and Prosperity Partnership of North America) partners from Canada and Mexico to promote NEMA’s anti-counterfeiting message to the Latin American populace. This project increased awareness of the dangers of electrical counterfeiting in Latin America, NEMA’s principal geographic region of concern, and promoted increased exports of legitimate electrical products to the area.¹¹⁴

g. Department of Homeland Security (DHS)

DHS provides IP-related technical assistance through two of its constituent agencies, U.S. Immigration and Customs Enforcement (ICE) and U.S. Customs and Border Protection (CBP). ICE and CBP are both partners in the National Intellectual Property Rights Coordination Center.

ICE provides training assistance to other countries’ customs agencies on stopping the importation of counterfeits. For example, in the last year, it has hosted a training in Hong Kong, attended by participants from Malaysia, China and Hong Kong, and co-hosted numerous trainings with Interpol in locations such as Africa and the Ukraine. Moreover, ICE increasingly engages with Chinese officials on a bilateral basis in the hopes that as China develops its own IP, it will increase its own enforcement efforts. ICE’s IPR programs are wholly funded by DOJ’s INL monies; it received \$399,000 in 2010 for these purposes.

CBP provides some training in IPR enforcement despite not having a training budget of its own. Other agencies, mainly USPTO and State, receive assistance from

¹¹⁴ Interview with Molly Stech, International Trade Specialist, Office of Intellectual Property Rights, U.S. Department of Commerce, on November 8, 2011 and emails dated January 4, January 5, and March 20, 2012 (on file with IIP).

CBP on border issues. Part of CBP's mission is to help US companies compete abroad, and this motivates its IPR training efforts.¹¹⁵

h. Department of Justice (DOJ)

DOJ's Office of Overseas Prosecutorial Development, Assistance, and Training (OPDAT) was established "to assist prosecutors and judicial personnel in other countries develop and sustain effective criminal justice institutions" (Office of Overseas Prosecutorial Development, Assistance and Training).¹¹⁶ This assistance includes assistance in IP issues. Its IPR work is performed mainly through DOJ's Computer Crime and Intellectual Property Section (CCIPS). For Fiscal Year 2011 (October 1, 2010 through September 30, 2011), DOJ conducted 17 international IP law enforcement training initiatives in Guatemala, Paraguay, Africa (for law enforcement officials from Zambia, Botswana, Tanzania and Malawi), China, Panama, Mexico (3), Kenya (2), Hong Kong, Rwanda, Nigeria, Panama, and the U.S. (3). Topics included counterfeit medications, IPR enforcement, computer forensics and IP crimes, computer crimes, the role of the judiciary in the enforcement of IP Rights, criminal enforcement at the border, cyberspace security, and a number of IPR study tours (U.S. Department of Justice 2011).

The OPDAT proposal requesting INL funding for programs in Sub-Saharan Africa provides some examples of the types of IPR trainings conducted by OPDAT. The total requested is for approximately \$526,000, to be allotted for the following activities and amounts:

- Conduct a workshop for about 60 officials from Mozambique, Angola, Sao Tome, Guinea Bissau, Cape Verde and 5 officials from South Africa (proposed budget of \$ 140,000).
- Continue training on following the money trail, including exploring alternative means of enforcing IP crimes (proposed budget of \$121,000).¹¹⁷
- Conduct a workshop for Central and Middle Africa prosecutors, which would build on a pilot program in Zambia in 2010, and would engage French-speaking law enforcement in Central and Middle Africa. The workshop would also build on a USPTO event in the same region. Countries anticipated to be represented include Chad, Cameroon, Gabon, Republic of Congo (Congo-Brazzaville) and Sao Tome. Other U.S. government agencies, including DHS, U.S. Postal Service, the Food and Drug Administration, and other DOJ bureaus are expected to participate (proposed budget of \$137,000).

¹¹⁵ Meeting on October 18, 2011 with Rich Halverson, Outreach and Training Unit Chief, National IPR Coordination Center, Immigration and Customs Enforcement; Colette Dennehey, National Program Manager, Immigration and Customs Enforcement; David Brener, IPR Operations Branch Chief, United States Customs and Border Protection; and Kristine Schlegelmilch, Office of External Affairs, United States Patent and Trademark Office.

¹¹⁶ <http://www.justice.gov/criminal/opdat/>.

¹¹⁷ The proposal mentions input from U.S. rights holders having business in Sub-Saharan Africa.

- Conduct training in Ghana at the request of West African law enforcement on properly gathering and analyzing electronic evidence in IP crimes. Ghana, Togo, Benin, Burkina Faso and Cote D'Ivoire are expected to participate (proposed budget of \$128,000).

One interesting aspect of these proposed trainings is that three out of four proposals deal specifically with health, which is a major area of concern for development agencies, especially those working in Africa. Other major points of emphasis for agencies working in developing countries are food security, climate change and the environment, and empowering women. IP is recognized as a key component of all these areas (WIPO website).¹¹⁸

2. Other Agencies

Although the following agencies do not themselves directly provide IP training and capacity building, they merit mention because both are important in these efforts.

a. Intellectual Property Enforcement Coordinator (IPEC)

The Prioritizing Resources and Organization for Intellectual Property Act of 2008 (PRO-IP Act) created the Office of Intellectual Property Enforcement within the Executive Branch. The Act directs the Intellectual Property Enforcement Coordinator (IPEC) to coordinate the development of a Joint Strategic Plan against counterfeiting and infringement.¹¹⁹

Although IPEC does not itself directly provide technical assistance for capacity building or training, it coordinates the efforts of the government agencies described earlier in this Addendum (and other agencies). This coordination, focusing on combating IP infringement internationally, includes the establishment of “an interagency committee through which agencies will share plans, information, and best practices and also integrate coordination of capacity building efforts with interagency coordination of overall development assistance to developing countries” (Intellectual Property Enforcement Coordinator 2010).¹²⁰ In the 2011 U.S. Intellectual Property Enforcement Coordinator Joint Strategic Plan, IPEC reported that a new working group had been established to coordinate activities abroad. As described earlier, a total of 17 countries were identified in which efforts to improve IP enforcement were to be focused. In each focus country, the U.S. Embassy established an Embassy IP Working Group. Each Working Group completed drafting action plans (hereinafter Working Group Action Plans, distinct

¹¹⁸ See, e.g., World Intellectual Property Organization- Intellectual Property and Public Health (health); Leidwein 2011 (food security); World Intellectual Property Organization 2011- Conference on Innovation and Climate Change (climate and the environment); World Intellectual Property Organization 2005 (empowering women). See also International Intellectual Property Institute 2011.

¹¹⁹ HR 4279.

¹²⁰ See p. 13 of cited document for other matters to be coordinated.

from the USTR Action Plans discussed below). The Working Group Action Plans identify actions that “each embassy will take to address the specific challenges in their respective host countries, and will guide their actions on intellectual property enforcement over the coming year” (Intellectual Property Enforcement Coordinator 2011).

b. Office of the U.S. Trade Representative (USTR)

USTR has a crucial role in intellectual property. Through its Office of Intellectual Property and Innovation (IPN), it uses trade tools to promote strong IPR protection and effective enforcement. As stated on its website, USTR’s IPR work includes:

- the negotiation, implementation, and monitoring of intellectual property provisions of trade agreements;
- bilateral and regional engagement through such vehicles as the annual “Special 301” review¹²¹ and numerous IP dialogues with trading partners;
- multilateral engagement on IP issues through the WTO and other organizations;
- implementation of trade policy in support of U.S. innovations, including those in the pharmaceutical and medical technology industries; and
- providing interagency trade policy leadership.

The 2011 U.S. Intellectual Property Enforcement Coordinator Joint Strategic Plan mentioned that USTR, in its 2010 Special 301 Report, issued an open invitation to all trading partners listed in the report to work with the U.S. to develop action plans (hereinafter USTR Action Plans) to resolve IP issues of concern.¹²² The 2011 IPEC Joint Strategic Plan also mentioned that although agreement to an Action Plan does not automatically lead to a change in the trading partner’s 301 status, in the past successful completion of the Action Plan did lead to Saudi Arabia, Taiwan, and others’ removal from Special 301 lists (Special 301 Report 2011).¹²³

The USTR Action Plan adopted for Ukraine provides examples of issues addressed by these agreements. It deals with matters such as increased public awareness of illegal downloading of copyrighted pirated works; government use of illegal software; legislation on copyrights and on distribution of audiovisual works; increased levels of enforcement on internet piracy and counterfeit pesticides; improved border enforcement; adequate staffing on IPR enforcement sections, such

¹²¹ “The ‘Special 301 Report’ is an annual review of the global state of intellectual property rights (IPR) protection and enforcement...which the Office of the United States Trade Representative (USTR) conducts...[.] This Report reflects the Administration’s resolve to encourage and maintain effective IPR protection and enforcement worldwide.” The quoted language is from the Executive Summary of the 2011 Special 301 Report. *See* U.S. Trade Representative 2011, *Executive Summary of the Special 301 Report*.

¹²² *Id.* at p. 5.

¹²³ *See* p. 5 of the cited publication.

as training additional officers for the IPR units of the Economic Police; addressing illegal collecting societies; ensuring plant variety protection; and addressing pharmaceutical patent and data protection violations (U.S. Trade Representative 2010).

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ANNEX A: TABLE OF ACRONYMS AND ABBREVIATIONS

AmCham	U.S. Chamber of Commerce Abroad
ATCB	Andean Regional Trade Capacity Building
CASBAA	Cable & Satellite Broadcasting Association of Asia
CCIPS	Computer Crime and Intellectual Property Section
CPB	U.S. Customs and Border Protection
CLDP	Commercial Law Development Program
DAI	Development Alternatives, Inc.
DHS	Department of Homeland Security
DOJ	Department of Justice
EC	European Commission
E.U.	European Union
EuroCham	European Chamber of Commerce
FBI	Federal Bureau of Investigation
FDI	Foreign Direct Investment
FTA	Free trade agreement
GAO	General Accountability Office
GDP	Gross domestic product
GIPA	Global Intellectual Property Academy
ICE	U.S. Immigration and Customs Enforcement
ICTSD	International Centre for Trade and Sustainable Development
IDRC	International Development Research Centre
IFACT-GC	International Federation Against Copyright Theft-Greater China
IPI	International Intellectual Property Institute
INDECOPI	Instituto Nacional de Defensa de Competencia de la Protección Propriedad Intelectual (Institute for the Defense of Competition and Intellectual Property) (Peru)
INL	Bureau of International Narcotics and Law Enforcement Affairs
IP	Intellectual property
IPE	Office of Intellectual Property Enforcement
IPEC	Intellectual Property Enforcement Coordinator
IPN	Office of Intellectual Property and Innovation
IPR	Intellectual property rights
ITA	International Trade Administration
MAC	Market Access and Compliance
MCC	Millennium Challenge Corporation
MPAA	Motion Picture Association of America
NAFTA	North American Free Trade Agreement
NAICS	North American Industry Classification System
NEMA	National Electrical Manufacturers Association
OECD	Organization for Economic Co-operation and Development
OPDAT	Office of Prosecutorial Development, Assistance and Training
OXFAM	Oxford Committee for Famine Relief
PRO-IP Act	Prioritizing Resources and Organization for Intellectual Property Act of 2008

PTPA	U.S.-Peru Trade Promotion Agreement
R&D	Research and development
SAR	Special Administrative Region
SIC	Superintendencia de Industria y Comercio (Superintendency of Industry and Trade) (Colombia)
SPP	Security and Prosperity Partnership of North America
STAR	Support for Trade Acceleration (USAID project in Vietnam)
TCB	Trade capacity-building
TEE	Total Economic Engagement
TRIPS	Trade-Related Aspects of Intellectual Property
UPOV	International Union for the Protection of New Varieties in Plants
U.S.	United States
USAID	United States Agency for International Development
USITC	United States International Trade Commission
USPTO	United States Patent and Trademark Office
USTR	Office of the United States Trade Representative
WHO	World Health Organization
WIPO	World Intellectual Property Organization
WTO	World Trade Organization

ANNEX B: TABLE OF INTERVIEWEES AND OTHER SOURCES

1. U.S Companies

Name	Title	Organization
Thaddeus Burns	Senior Counsel for Intellectual Property and Technology Policy	General Electric Company
Jeffrey A. Fehervari	Vice President, IP Protection	Dolby Laboratories, Inc.
Peter Fifka	Senior Program Manager, Europe and Middle East	Microsoft Corporation
Sanjay Gajjar	Representative	Dolby Laboratories, Inc.
Shushama Gokhale	Director, Global Compliance Operations	Dolby Laboratories, Inc.
Daniel Korn	Senior Attorney, IP Policy	Microsoft Corporation
Bonnie MacNaughton	Senior Attorney, Worldwide Sales Group	Microsoft Corporation
Michael Mogenson	Regional Investigator, Latin America	Microsoft Corporation
Chris Oldknow	Attorney, Worldwide Sales Group	Microsoft Corporation
Vivian Vassallo	Senior Director, Global Compliance Operations	Dolby Laboratories, Inc.
John Weresh	General Manager, Patent Operations	Microsoft Corporation

2. U.S. Federal Government

Name	Title	Organization
Eduardo Albareda	Trade, Investment and Finance Specialist, Economic Growth and Environment Office	U.S. Agency for International Development /Peru
Susan Anthony	Attorney-Advisor, Office of Policy and External Affairs	U.S. Patent and Trademark Office
Scott Baldwin	Attorney-Advisor, Office of Policy and External Affairs	U.S. Patent and Trademark Office
Michael Boyd	Senior Economic Growth Advisor & Economic Growth Office Team Leader	U.S. Agency for International Development /Liberia
David Brener	IPR Operations Branch Chief	United States Customs and Border Protection
Malik Chaka	Policy and International Relations Director	Millennium Challenge Corporation
Alex (Yoon-Jeong) Choi	Commercial Specialist	U.S. Embassy South Korea
Soon Young Chung	Senior Trade Specialist	U.S. Embassy South Korea
Colette Dennehey	National Program Manager	Immigration and Customs Enforcement
David Drinkard	Foreign Service Officer	Office of International Intellectual Property Enforcement, Department of State
Nnamde Kalu Ezera	Senior Counsel	Commercial Law Development Program, U.S. Department of Commerce

Peter N. Fowler	Regional IP Attaché for Southeast Asia	U.S. Patent and Trademark Office/Foreign Commercial Service
Maria Galindo	Commercial Attaché	U.S. Embassy South Korea
Stephen Gardner	Chief Counsel	Commercial Law Development Program, U.S. Department of Commerce
Rich Halverson	Outreach and Training Unit Chief, National IPR Coordination Center	Immigration and Customs Enforcement
Arturo Hines	Economic Officer	U.S. Embassy Singapore
James Housel	then Director, Global Intellectual Property Academy, currently Administrative Patent Judge, Patent Trial and Appeal Board	U.S. Patent and Trademark Office
Chia Swee Hoon	Senior Commercial Specialist	U.S. Commercial Service/U.S. Embassy Singapore
Bruce Kay	Director of Threshold Programs for Latin America, Eastern Europe, and Asia	Millennium Challenge Corporation
Hae Lyong Kim	Commercial Specialist	U.S. Department of Commerce
Nicholas Klissas	Senior Commercial Law Specialist, Bureau of Economic Growth, Education and Environment	U.S. Agency for International Development
Carrie LaCrosse	Foreign Affairs Officer	Office of International Intellectual Property Enforcement, U.S. Department of State
Marianne Guerin-McManus	Senior Counsel	Commercial Law Development Program, U.S. Department of Commerce
Christopher Merriam	Assistant Deputy Chief for Intellectual Property	Computer Crime & Intellectual Property Section, U.S. Department of Justice
Jennifer Ness	Attorney-Advisor, Office of Policy and External Affairs	U.S. Patent and Trademark Office
Sarah Oh	Economic Adviser	U.S. Embassy South Korea
Kristine Schlegelmilch	Attorney, Office of Policy and External Affairs	U.S. Patent and Trademark Office
Carl Schonander	Foreign Affairs Officer, Office of International Intellectual Property Enforcement	U.S. Department of State
Gerald Smith	Attaché for Agricultural Affairs	U.S. Embassy South Korea
Molly Stech	International Trade Specialist, Office of Intellectual Property Rights	U.S. Department of Commerce
Beth Truebell	Program Manager, Liaison and Public Information	Office of Overseas Prosecutorial Development, Assistance and Training, Criminal Division, U.S. Department of Justice
JoEllen Urban	Senior Economic Officer	Office of International Intellectual Property

		Enforcement, U.S. Department of State
Rachel A. Wallace	Director, Global Intellectual Property Academy	U.S. Patent and Trademark Office

3. U.S. State Government

Name	Title	Organization
Sung-Hoon Bae	Representative	State of North Carolina Ports Authority Korea Office
Seokhwan "Shawn" Kim	Assistant Director, Korea Representative Office	State of Oregon

4. Ecuador

Name	Title	Organization
Jose Meythaler	Partner	Larreategui, Meythaler & Zambrano

5. Hong Kong

Name	Title	Organization
Barrett Bingley	Business Development Manager	ICS Trust (Asia) Limited
Christopher Britton	Partner, Intellectual Property	Deacons
Franki Cheung	Partner, China Appointed Testing Officer	Deacons
Ming-Lai Cheung	Manager, Government Relations and Public Affairs	American Chamber of Commerce Hong Kong
Peter Cheung	Director of Intellectual Property	Government of Hong Kong IP Department
Lai Ching-Hung	Barrister at Law	Chambers
Andrew Cobden	Consultant	Hogan Lovells
John Gale	Solicitor	J.S. Gale & Co.
Simon Galpin	Director-General	Invest HK
James Griffiths	Partner	CWL Partners
Sam Ho	Managing Director	International Federation Against Copyright Theft-Greater China (IFACT-GC)
Gabriela Kennedy	Partner	Hogan Lovells
Amy Lee	IP Attorney	Microsoft Corporation
Chloe Lee	Partner	J.S. Gale & Co.
Gloria Leung	Manager of Business and Professional Services	InvestHK
John Medeiros	Deputy Chief of Regulatory Affairs	Cable & Satellite Broadcasting Association of Asia (CASBAA)
Mike Rowse	Managing Director Director	Stanton Chase International Treloar Enterprises
Myles Seto	Partner, Intellectual Property	Deacons
Johnny Wong Siu-ling	Head of Marketing Division	Government of Hong Kong IP Department
Karen Smoke	Vice President, Fraud Prevention and Integrity Risk Services	Hill & Associates

Elizabeth Thomson	President	ICS Trust (Asia) Limited
Gerry Tucker	Project Facilitator, Procurement, Contracts, and Claims	Gerry Tucker LTD
Nicholas Yang	Executive Vice President	Hong Kong Polytechnic University
Catherine Zheng	Partner, Intellectual Property	Deacons

6. Republic of Korea

Name	Title	Organization
Jung Wook Cho	Managing Partner	Kangho Attorneys at Law
Won Hee Chough	Attorney	Kangho Attorneys at Law
Kevin Kim	Director	U International
Seong-Ki Kim	Senior Partner	Lee International IP & Law Group
Shirlin Kim	Business Development Manager	ETS Global-Korea
Charles Kwak	Of Counsel	Kangho Attorneys at Law
Dong-Shik Moon	Executive Director, Trade and Commerce Team, International Relations Office	Korea Importers Association
Katie Won	Owner	U International

7. Singapore

Name	Title	Organization
Christopher Cherry	Foreign Legal Advisor	Damodara Hazra
Cyril Chua	Partner	Bird & Bird, Singapore
Peter L. Dolan	Head of India, China, Japan and Asia Pacific Patents	Sanofi Aventis
Rachel Foxton	Director of Business Development	Singapore International Arbitration Centre
Lim Eng Hann	Director of Programs and Operations	IP Academy- Singapore
Christopher Knight	Chief Executive Officer	Everett Knight Ltd.
Chiam Lu Lin	Executive Director Deputy Chief Executive (Designate)/ Deputy Director- General (Designate) & Legal Counsel	IP Academy-Singapore Intellectual Property Office of Singapore
Min Naing Oo	Chief Executive Officer	Singapore International Arbitration Centre
Phillip Overmyer	Chief Executive	Singapore International Chamber of Commerce
Benjamin Robertson	Senior Associate	Freehills (Sydney, Australia)
Leandro Emilio Toscano	Representative	World Intellectual Property Organization Arbitration and Mediation Singapore
Mark Wong	Associate Director, Strategy & Business Development – Asia	LexisNexis

8. Vietnam

Name	Title	Organization
Gregory F. Buhyoff	Attorney	
Hien Dao	Associate/IP Attorney	Rouse Legal
My Doan	Trainee Lawyer	Hogan Lovells
Mariam El Bacha	Director of Operations	MegaStar Media Company
EngHee Lim	General Manager	MegaStar Media Company
Doan Phuong Ly	Director	Vietnam Trade Alliance
Jonathan L. Moreno	General Director	Sandhill Scientific Vietnam Ltd., Co.
Lam Nguyen	Lawyer and IP Attorney	Rouse Legal
Tri Minh Quach	Associate	Baker and McKenzie (Hanoi Office)
Farra Siregar	Managing Director	DuPont Vietnam
Orsolya Szotyory-Grove	Associate	Russin & Vecchi
Binh Duy Tran		Baker & McKenzie (Ho Chi Minh City Office)
Thomas Treutler	Managing Director	Tilleke & Gibbons
Hung Manh Tran	Principal	Baker & McKenzie (Hanoi Office)
Do Anh Tuan	Associate	Russin & Vecchi
Rick Yvanovich	Chief Executive Officer	TRG International