

Texas Intellectual Property Law Journal
Fall, 2011

Article

STRENGTH OF THE INTERNATIONAL TRADE COMMISSION AS A PATENT VENUE

Christopher A. Cotropia^{a1}

Copyright (c) 2011 Intellectual Property Law Section of the State Bar of Texas; Christopher A. Cotropia

I.	Introduction	2
II.	ITC's Unique Position in Patent Enforcement	4
III.	Kyocera Decision and the Predictions	7
	A. Federal Circuit's Decision in Kyocera	7
	B. Postulated Impacts of Kyocera	9
	1. Increase in Number of Named ITC Respondents	10
	2. Increase in Requests for, and Grants of, GEOs	10
	3. Decrease in ITC Filings	11
IV.	Study Testing The Impact of Kyocera and Strength of the ITC	12
	A. Study Methodology	13
	1. ITC Complaints and Determinations	13
	2. District Court Complaints	14
	B. Number of ITC Respondents	15
	C. GEOs Granted	19
	D. ITC Filings	19
V.	Implications for Kyocera and the ITC as a Patent Venue	21
	A. Data Does Not Support the Post-Kyocera Predictions	21
	1. Named Respondents Did Not Increase	21
	2. GEO Grants Did Not Increase	22

3. ITC Filings Did Increase	23
B. Data Implications Regarding the ITC as a Patent Venue	23
VI. Conclusion	24

***2 I. Introduction**

The United States International Trade Commission (“ITC”) is a unique venue for patent enforcement. After a finding of patent infringement, the ITC, an administrative agency, has the power to enlist United States Customs and Boarder Protection (“Customs”) to bar entry of the infringing products into the United States. ITC actions also must, pursuant to statute, end within a defined time period, causing such cases to move swiftly.¹ Finally, because of their exclusive jurisdiction over such actions, ITC administrative judges are seen by many as patent law savvy and, in turn, patentholder friendly. As a result, the ITC has become a favored jurisdiction for patent infringement disputes, being used more and more by patentees.

While the ITC has been available to patentees for quite some time,² only recently has the venue become a significant player.³ Patent actions before the ITC have nearly doubled in recent years.⁴ Scholars have begun to examine in depth the ITC’s place in patent law,⁵ looking, for example, to see if the venue is patent friendly⁶ or at least really comprised of patent experts.⁷

Given the ITC’s recent rise in patent law, the next logical focus of scholarly inquiry is on its strength as a patent venue and whether it has staying power. Will patentee use of the ITC continue to increase or is this just a fad? There are also questions as to whether the advantages of the ITC to patentees are really that strong.

The Federal Circuit’s recent decision in *Kyocera Wireless Corp. v. International Trade Commission*⁸ presents the first real test to the favorability of the ITC. Prior to Kyocera, the ITC was willing to grant remedies to exclude *3 imports by individuals not explicitly named as a respondent in a given ITC action. Essentially, the ITC would grant relief in the form of a limited exclusion order (“LEO”) to exclude third party products that infringe by using a respondent’s technology. The ITC employed what became known as the EPROM factors to determine when a remedy can cover non-respondents.⁹

The Federal Circuit reversed this practice in Kyocera, finding that the ITC’s statutory authority limited LEOs to the named respondents.¹⁰ Such a broad remedy is now reserved for only general exclusion orders (“GEO’s”), where a patentee must satisfy a much higher burden then under the ITC’s EPROM factors.¹¹

After the decision in Kyocera was issued, many wondered how it would impact ITC practice. There are law review collections on the case,¹² and many law firms issued “legal alerts” informing patentees of the decision.¹³ Most of these commentaries include three postulates: the Kyocera decision will force patentees to name more respondents in ITC cases in order to get a remedy similar to that enjoyed before under the EPROM factors; the rate of requests and grants of GEOs, which can exclude non-respondents, will increase to compensate for Kyocera; and that Kyocera makes the ITC so unfavorable as a patent enforcement venue because of the restriction on remedies that the number of ITC filings will go down.

While these articles evidence the high interest amongst industry, practitioners, and academics in both Kyocera and the ITC, the articles contain only speculation as to Kyocera’s impact. No one has systematically examined what has really happened to ITC practice post-Kyocera, even though more than two years have passed since the decision’s issuance. Nor has anyone used Kyocera as a litmus test on the viability and strength of the ITC as a patent enforcement venue.

This Article fills these voids; it tests the various postulates and describes the real impact of the Kyocera decision. While doing this, the Article also provides real insight into how strong the ITC is in patent law.

The Article does this by looking at all ITC utility patent investigations filed after the date of the Kyocera decision until the end of 2010 (eighty-seven investigations) and comparing them to a similar number filed prior to the decision. *4 For both periods before and after Kyocera, the number of named respondents per investigation as well as the raw number of investigations is observed. The subset of investigations that were filed prior to Kyocera, but still pending when Kyocera was issued, were also examined to determine whether respondents were added after Kyocera. Additional information on the grant

of GEOS both before and after Kyocera is also collected. This data can test whether Kyocera has changed the number of respondents, the grant of GEOS, or the number of investigations. Data from district court patent infringement actions filed in parallel to the observed ITC cases is collected as a control in an attempt to isolate the impact of Kyocera.

The results of the study run counter to the conventional wisdom on Kyocera. Patentees have not reacted in any of the ways projected after Kyocera. There is no statistical difference between the average number of respondents per ITC case before Kyocera and those observed after. This lack of statistical difference is even observed in the industries most likely to be affected-- electronics and computer-related technologies. Furthermore, no respondents were added in those ITC investigations pending when Kyocera was issued.

Nor has the grant of GEOS increased. The number of ITC investigations continues to rise at a rapid pace. While all of this is going on, the number of defendants in the parallel district court cases has stayed constant; this discounts other legal or economic influences that may have counteracted Kyocera's effect at the ITC and thus explains the lack of change. To date, Kyocera, appears to have not caused the dramatic changes predicted.

These results speak volumes for the attractiveness of the ITC as a patent venue. Even with the effectiveness of the venue significantly diminished by Kyocera, the ITC's use continues to rise. The data suggests that the ITC is here to stay and almost all patent enforcement actions will take place, at least in part, in the ITC. The landscape of patent enforcement has permanently changed, and the ITC is a solid part of it.

This Article reaches these conclusions by first, in Part I, describing the unique features of the ITC that make it a favored venue of patentees. Part II describes the Federal Circuit's decision in Kyocera and the various postulates as to its impact. Part III describes the study, the specific data obtained, and the results. Part IV analyzes the results, looking at whether the predictions of Kyocera were true and what the data says about the ITC place in patent enforcement.

II. ITC's Unique Position in Patent Enforcement

The ITC provides a special forum for hearing patent infringement disputes.¹⁴ "Section 337" (19 U.S.C. § 1337) gives the ITC power to both exclude products *5 that are found to infringe a U.S. patent and issue cease and desist orders to the same.¹⁵ A patentholder files a complaint with the ITC, requesting that the ITC investigate the alleged infringement of a U.S. Patent, which harms a domestic industry.¹⁶ A Section 337 action then proceeds before an administrative law judge ("ALJ"), who determines questions of infringement and validity, amongst others.¹⁷ These determinations are ultimately reviewed by the ITC commissioners, the President, and then appealable to the Federal Circuit.¹⁸ A parallel action for patent infringement can be pursued in United States district court.¹⁹

The number of Section 337 actions has grown tremendously over the past twenty years.²⁰ The average number of section 337 actions was ten per year in the 1990s; this doubled from 2000-2007, when the average jumped to twenty-three a year.²¹ The increase in use is particularly prevalent in the electronics industries given that most products containing these technologies are manufactured abroad and imported into the United States.²² This puts the ITC in a unique position to provide effective remedies in this area of technology.²³

Several perceived advantages contribute to the increased use of the ITC as a patent enforcement forum. The first is jurisdiction. The ITC gains jurisdiction over importers via the "mere act of importation."²⁴ This makes jurisdiction over foreign companies much easier, and less complex, than in United States district court where venue and personal jurisdiction rules can deny jurisdictional coverage over such defendants.²⁵

The second perceived advantage is the speed of ITC proceedings.²⁶ Fast track adjudication venues have historically attracted patentees.²⁷ The ITC is required, by *6 statute, to complete an investigation "at the earliest practicable time after the date of publication of the notice of such investigation."²⁸ Statistics show that "on average a district court case took about twice as long as an ITC case to fully litigate."²⁹

Third, there is a perception, that the ITC is patent friendly.³⁰ This perception is based on results, with patentees winning in 65% of cases between 1975 and 1988, compared to 40-45% in district courts.³¹ Given the exclusive jurisdiction over Section 337 cases, the ALJ's are also very experienced with patent cases, which may also lead to patent friendliness.³²

Finally, and perhaps most importantly, the ITC has extremely favorable remedies for patentees: exclusion orders barring the importation of infringing products and cease and desist orders barring the sale of imported articles.³³ The ITC can issue two types of exclusion orders: the limited exclusion order (“LEO”) and the general exclusion order (“GEO”). The LEO is limited to excluding those infringing products imported by respondents and is very similar to an injunction in district court.³⁴ The GEO, on the other hand, prohibits all importation of infringing products regardless of source.³⁵ A GEO therefore applies to all importers of the infringing product, regardless of whether they were a party to the litigation.³⁶

Given these injunctive remedies are essentially the only remedies the ITC can issue,³⁷ “the ITC is extremely likely to issue injunctive relief following a finding of infringement.”³⁸ This is even true after the Supreme Court’s decision in *eBay v. MercExchange*, which has limited the availability of injunctions in district court patent infringement cases.³⁹ In contrast, as the Federal Circuit recently held, the four-factor equity test for injunctions set forth in *eBay* does not apply in Section 337 actions.⁴⁰ The close linkage between the ITC and Customs increases the efficacy of the exclusion orders, making the remedies available even more attractive. All of these factors are magnified by the extreme value such injunctive relief, or at least the threat of it, has for the patentee in litigation, settlement discussions, and competition.⁴¹

III. Kyocera Decision and the Predictions

Prior to the Kyocera decision, the ITC would issue LEOs that excluded all infringing articles made by the respondents, regardless of who the importer was.⁴² Those products that include the infringing product are considered “downstream” products in that they incorporate the infringing product into a more complex product that is then imported into the United States.⁴³ To obtain an LEO that excluded all downstream products, regardless of importer, a patentee had to meet the EPROM test, established in the ITC’s decision in Certain Erasable Programmable Read-Only Memories.⁴⁴ The EPROM test sets forth nine factors that, if met, allow an LEO to apply to third parties to the ITC investigation.⁴⁵

The Federal Circuit examined both the ability of the ITC to issue LEOs that applied to non-respondents and the EPROM test in Kyocera. The decision and the postulated impacts of the decision are set forth below.

A. Federal Circuit’s Decision in Kyocera

In Kyocera, Broadcom Corporation filed a complaint with the ITC alleging a violation of Section 337 naming Qualcomm Incorporated as the only respondent.⁴⁶ Broadcom alleged that thirteen of Qualcomm’s wireless telecommunication chips and chipsets infringed several of Broadcom’s patents.⁴⁷

*8 The ITC determined that Qualcomm’s chips infringed one of Broadcom’s patents.⁴⁸ The ITC also concluded that Qualcomm induced wireless handset manufacturers to include the infringing chips in their mobile devices.⁴⁹ The ITC granted an LEO excluding “[h]andheld wireless communications devices, including cellular telephone handsets and PDAs, containing Qualcomm baseband processor chips or chipsets that” infringed Broadcom’s patent.⁵⁰ Thus, the LEO included all downstream products that included the infringing chips, regardless of whether the downstream products were actually imported by Qualcomm.

Six companies who manufactured, sold, or both manufactured and sold downstream products including Qualcomm chips intervened at the remedies stage of the ITC action.⁵¹ These interveners, with Qualcomm’s support, argued that since they were not named respondents in the ITC action, their actions could not be subject to the ITC’s LEO.⁵²

The Federal Circuit agreed, holding that 19 U.S.C. § 1337(d) limits LEOs to excluding only named respondents.⁵³ The Court noted that the ITC is a creature of statute, and thus the scope of any remedy it issues is limited by its statutory authority.⁵⁴ Section 1337(d)(1) limits LEO exclusions to articles “imported by any person violating the provision of [Section 337]”⁵⁵ and § 1337(d)(2) indicates that LEOs “shall be limited to persons determined by the Commission to be violating [Section 337].”⁵⁶

Section 337’s plain language describes the two forms of exclusion orders:

[T]wo distinct forms of exclusion orders: one limited and one general. The default exclusion remedy ‘shall be limited to persons determined by the Commission to be violating this section.’ By contrast, a ‘general exclusion’ order (‘GEO’) is only appropriate if two exceptional circumstances apply. Specifically, under subsection d(2)(A), the Commission may issue a GEO if it is ‘necessary to prevent circumvention of an exclusion order limited to products of named persons’ or, under

subsection d(2)(B), if ‘there is a pattern of violation of this section and it is difficult to identify the source of infringing products.’⁵⁷

*9 The Federal Circuit vacated the ITC’s exclusion order because it exceeded the ITC’s statutory authority.⁵⁸ None of the downstream device importers were named respondents in the action. “Broadcom . . . could have named such manufacturers as respondents to the Section 337 investigation,” but “Broadcom appear[ed] to have made the strategic decision to not name downstream wireless device manufacturers.”⁵⁹ The ITC could have excluded these unnamed downstream product importers via a GEO, but Broadcom did not request one or make the necessary proof to meet the extra statutory requirements to warrant one.⁶⁰

B. Postulated Impacts of Kyocera

Kyocera reversed the ITC’s long-standing practice of issuing LEOs that extend to downstream products imported by unnamed respondents.⁶¹ LEOs are now limited to named respondents in ITC actions. Accordingly, to exclude such downstream importers via a Section 337 action, complainants presently have two options: they may either explicitly name the importer as a respondent in the ITC complaint⁶² or they may request, and eventually meet, the requirements for a GEO.⁶³

These impacts of Kyocera--both changing longstanding ITC remedy practice and forcing complainants to add respondents or request GEOs to obtain remedies that were once routine--have garnered much attention, particularly from patentees and practitioners.⁶⁴ Commentators have, in turn, postulated as to the impact of the Kyocera decision on ITC practice. These postulates fall into three categories: increasing the number of respondents in a given investigation, increasing requests and grants of GEOs, or decreasing ITC filings. All three of the postulates and the rationales behind them are explained below.

*10 1. Increase in Number of Named ITC Respondents

One potential reaction to Kyocera is to simply name more respondents in the ITC complaint.⁶⁵ Specifically, name those importers of downstream products that the patentholder--the complainant--wishes to exclude.⁶⁶ Under Kyocera, and the statutory language of § 1337(d) at issue, a named respondent can be subject to a LEO; thus, if downstream importers are named, they can be excluded.⁶⁷

This naming of more respondents is the very thing that the Federal Circuit noted that Broadcom could have done.⁶⁸ If Broadcom wanted to exclude handsets via a LEO that included the Qualcomm infringing chip, but were imported by other companies, it could have simply named those companies. Broadcom would then have had a broader LEO available to it, even with the Kyocera ruling.

The assumption is that such a reaction--increasing the number of respondents--is particularly likely in the electronics area because of the high rate of integration of infringing products into a final, multi-component consumer product prior to importation. This integration is typically done by someone other than the base, electronic component manufacturer. Just as Qualcomm’s chips were put into handsets prior to import, other electronic components or software, which may be covered by a patent, are packaged inside more complex goods before entering the United States. To obtain an effective remedy--excluding all infringing products--these downstream (multi-component product) importers need to be excluded as well.

2. Increase in Requests for, and Grants of, GEOs

The alternative to naming more respondents in order to expand the scope of the available LEO is for a complainant to obtain a GEO. A GEO excludes all infringing products, regardless of whether that product’s importer was named in the ITC action. As the Federal Circuit noted in Kyocera, § 1337(d)(2) explicitly defines the GEO as an *in rem* remedy focused on the infringing device, not particular respondents.⁶⁹

A GEO is another way to obtain an effective remedy against downstream importers.⁷⁰ For example, as discussed above, Broadcom could have excluded downstream headsets from being imported by unnamed respondents if it had requested and received a GEO.

***11** For that reason, more GEOs may be requested and, hopefully, granted in order for patentees to continue to obtain effective remedies. This reaction is driven by the need to duplicate the now invalid broad LEOs that were issued before Kyocera. The GEO is a way to get a similar remedy and still stay true to the Kyocera interpretation of 19 U.S.C. § 1337(d).

3. Decrease in ITC Filings

Other commentators postulate that Kyocera will actually lead to less ITC filings.⁷¹ The reasoning behind this conclusion is that the two other responses to Kyocera discussed above are actually not practical and will not be used by patentees; without such corrections truly being available to patentees, the ITC may no longer be a favorable venue and thus not used.⁷²

Complainants may be reluctant to add more respondents, particularly downstream product importers.⁷³ Adding more respondents can increase the duration and costs of an ITC investigation.⁷⁴ More respondents means more documents, more accused devices to investigate, and more depositions. All this increases the likelihood of the patentee's failure at the ITC. Magnifying this increase in costs to the patentee is the fact that respondents may also cooperate with each other and share litigation costs.⁷⁵ This decreases the costs of litigating for each individual respondent.⁷⁶ Reduced costs allow respondents to decrease their settlement point and stay with the investigation longer. The respondents may be more likely to outlast the complainant when more respondents are present. In addition, more respondents may increase the likelihood of failure by the patentee on the merits. More alleged infringers in a given action means more pairs of eyes looking for prior art, constructing invalidity defenses, and coming up with noninfringement arguments, all of which makes the likelihood of a successful argument higher.

Moreover, complainants are unlikely to add downstream importers as respondents because these companies are usually the complainant's customers, or potential customers.⁷⁷ For example, the handset manufacturers in Kyocera were both customers of the named respondent, Qualcomm, and the complainant, Broadcom. A practitioner confirmed this line of reasoning, saying that "[i]n many cases[,] the downstream manufacturer or distributor may be an actual or potential ***12** customer of the complainant that the complainant would not ordinarily wish to sue."⁷⁸

The alternative to adding more respondents is pursuing a GEO.⁷⁹ This may not be a viable option because of the high burden that accompanies GEOs.⁸⁰ GEOs are granted only upon a showing of widespread pattern of infringement and evidence that others besides the respondent are attempting to enter the U.S. market with infringing devices.⁸¹ Furthermore, the complainant must prove that the source of these other infringers is difficult to identify.⁸² The usual way to help prove these facts is to name a large number of respondents in the complaint, which is likely to be avoided for the reasons set forth above. Accordingly, this heightened burden has resulted in very few granted GEOs. For example, over a ten-year period prior to Kyocera when 158 complaints were filed, only eleven GEOs were issued.⁸³

Because of the fact that these alternatives to excluding downstream importers post-Kyocera have their drawbacks, some commentators think the result will be less use of the ITC.⁸⁴ The ITC becomes a less attractive venue for patent infringement relief because of the incompleteness of the remedy it can provide.⁸⁵ Attempting to fill the void left by Kyocera is either strategically or commercially harmful, in the case of naming more respondents, or practically impossible to obtain, in the case of a GEO. As a result, less ITC complaints will be filed post-Kyocera because one of the biggest advantages to the venue--broad injunctive relief--is gone.

IV. Study Testing The Impact of Kyocera and Strength of the ITC

To test the hypotheses above, this study collects information on ITC filings, decisions, and parallel United States district court filings to discern what, if any, impact Kyocera has had. The discussion below describes the study's methodology and the results from the data collected.

***13 A. Study Methodology**

The study focuses on two time periods--both before and after the Federal Circuit's Kyocera decision, which was issued on October 14, 2008. The question is how the decision has impacted litigant activity.

1. ITC Complaints and Determinations

The first set of data collected was from the ITC. Eighty-seven (87) complaints filed after Kyocera, including all investigations initiated through the end of 2010, were examined. An equal number of ITC complaints filed prior to Kyocera were also looked at--those 87 complaints filed from March 22, 2006, until just prior to the Federal Circuit's Kyocera decision. Only those ITC complaints filed that alleged infringement of at least one utility patent were collected.⁸⁶

For each of these complaints, data was obtained from the ITC's online Section 337 investigation database.⁸⁷ This data included the date the action was instituted, patents at issue, field of technology, complainants, and respondents. The field of technology was determined by looking at the patents at issue and using field of technologies categories that have been used in prior empirical patent studies.⁸⁸

From this data, the number of respondents identified in each ITC complaint was also calculated. The number of respondents was recorded in two ways. First, the raw number of respondents was determined, with each named respondent counting as a single respondent. Second, the respondents were "consolidated" before counting in that corporately related respondents were counted as a single, consolidated respondent.⁸⁹ When determining whether to consolidate, care was taken to err on the side of under-consolidating by combining respondents only if it was clear from their name that they were related.⁹⁰ Thus, the consolidated number *14 recorded is probably higher than the number of truly distinct (not legally or factually related) respondents identified in a single ITC complaint.⁹¹

In addition, of the two groups of 87 complaints, a third subset was constructed. This subset included all ITC complaints that were filed before the Kyocera decision but which were still pending before the ITC when Kyocera was issued. For this subset, the ITC dockets were looked at to determine whether any respondents were added to the ITC action after the Kyocera decision.

The other numbers identified from these ITC complaints were the number of ITC actions instituted per month over the periods prior to and after Kyocera. Data on ITC actions during these windows before and after Kyocera was also collected from issued ITC determinations.⁹² The focus of the search was whether a GEO was granted in a given ITC action and the number of such grants prior to and after Kyocera.

2. District Court Complaints

Data on parallel district court complaints was also collected. It is common for patent holders to file both a Section 337 complaint with the ITC on a given patent and also to sue on the same patent for infringement in a United States district court.⁹³ This is often against the same alleged infringers, although the targets can vary. Even if the patent holder does not file a district court complaint, the respondents in the ITC action will typically file a declaratory judgment action in district court.⁹⁴

Thus, for a majority of the ITC complaints recorded, there were also parallel district court complaints that could be collected. These were collected by searching complaints in the Intellectual Property Litigation Clearing House ("IPLC") database for cases filed alleging infringement of at least one of the same patents identified in the ITC complaint.⁹⁵ The study also looked for other factors that helped identify that it was truly a parallel case, such as filing of the district court *15 complaint around the same time period of the ITC complaint and the naming of at least some of the same alleged infringers in the ITC complaint. Some of the parallel cases recorded did not include all of the same patents as the ITC complaint, but as long as one patent was the same, the district court complaint was considered to be parallel. In addition, there were sometimes multiple district court complaints for a given ITC complaint, and the data collected from these--number of alleged infringers, for example--was combined and counted as part of a single, parallel district court case.

For each parallel district court complaint, the following data was collected: date complaint was filed and number of defendants. For declaratory judgment actions, the plaintiffs were considered the "defendants" for this study's purposes. The number of defendants was recorded in the same two manners as with ITC complaints--the actual of number of defendants listed and the number of defendants when they are consolidated.

B. Number of ITC Respondents

The number of named respondents in ITC complaints before and after the Kyocera decision was first observed. For these numbers, the mean (average) and median were calculated. The standard deviation was also calculated. The results for the 87

complaints filed before Kyocera and 87 filed after are set forth in Tables 1 and 2 below. Table 1 is from the raw respondent numbers, while Table 2 uses the “consolidated” respondent numbers--results that merge related corporate entities into one counted respondent.

	Pre-Kyocera (n=87)	Post-Kyocera (n=87)
Mean	6.62	6.95
Standard Deviation	9.06	7.53
Median	3	3

Table 1- Number of Respondents Named

	Pre-Kyocera (n=87)	Post-Kyocera (n=87)
Mean	5.31	4.87
Standard Deviation	8.39	6.13
Median	2	2

Table 2- Number of Respondents Named (Consolidated)

*16 From this data, a two-sided t-test was performed to determine whether the differences in means both prior to and after Kyocera were statistically significant.⁹⁶ The differences both between the raw respondent averages and consolidated respondents averages were not statistically significant.⁹⁷ In addition, the median has stayed the same under both respondent calculations.

These results may hide the real story, however, because Kyocera likely does not impact all industries the same. Only those industries with multi-component products--products were infringing devices are sold and integrated into downstream devices before importation--are the ones that may need to increase the number of respondents to still get an effective remedy post-Kyocera. Accordingly, the consolidated respondent numbers are set forth below by technology in Tables 3, 4, and 5.⁹⁸

	Pre-Kyocera (n=56)	Post-Kyocera (n=74)
Mean	5.66	4.72
Standard Deviation	8.35	5.87
Median	2	2

Table 3- Number of Respondents Named (Consolidated) - Electronics/Computer-Related

	Pre-Kyocera (n=19)	Post-Kyocera (n=2)
Mean	5.47	15.5

Standard Deviation	10.69	13.44
Median	2	15.5

Table 4- Number of Respondents Named (Consolidated) - Chemistry/Biotechnology/Pharmaceutical

	Pre-Kyocera (n=12)	Post-Kyocera (n=11)
Mean	3.17	4
Standard Deviation	3.16	5.51
Median	2	2

***17 Table 5- Number of Respondents Named (Consolidated) - Mechanical**

The average number of respondents in the electronics and computer-related technological areas went down after *Kyocera* (5.66 to 4.72). A t-test showed that this difference is not statistically significant.⁹⁹ In contrast, in the other two technological areas--chemistry, biotechnology, and pharmaceutical technologies and mechanical technologies, the average went up after *Kyocera*. However, these later numbers come from a very small sample size--something not surprising given that the ITC's usage is dominated by the electronics industry.

For the third subset of ITC actions looked at--those filed before *Kyocera* but were pending when the *Kyocera* decision was issued--the number of respondents added after *Kyocera* was examined. For the 39 investigations that fit into this category, none of them added respondents after *Kyocera*'s issuance. Respondents were added in these cases.¹⁰⁰ However, none of these additions took place after *Kyocera* issued.

These results can be compared to the number of defendants named in parallel district court lawsuits. In the 87 cases prior to *Kyocera*, there was parallel district court lawsuits filed in 77 of them. For the 87 after *Kyocera*, there were parallel district court lawsuits in 77 of them. The number of defendants named, both the raw numbers and those consolidated for obviously corporately related defendants, are reproduced in Tables 6 and 7 below. In each table, the ITC data, discussed above, is reproduced next to the district court data for comparison purposes.

	Pre-Kyocera		Post-Kyocera	
	ITC	D.Ct.	ITC	D.Ct.
Mean	6.62	5.62	6.95	5.70
St. Dev.	9.06	7.90	7.53	7.20
Median	3	3	3	3

***18 Table 6- Number of Respondents/Defendants Named**

	Pre-Kyocera		Post-Kyocera	
	ITC	D.Ct.	ITC	D.Ct.
Mean	5.31	3.98	4.87	4.22

St. Dev.	8.39	6.16	6.13	6.71
Median	2	2	2	1

Table 7- Number of Respondents/Defendants Named (Consolidated)

The mean number of defendants in parallel district court cases essentially did not change when looking at the raw number of defendants (5.62 to 5.70), while ITC respondents increased slightly (6.62 to 6.95). When looking at consolidated defendants, the defendants in parallel district court cases increased slightly (3.98 to 4.22), while ITC consolidated respondents decreased (5.31 to 4.87). T-tests for both the raw and consolidated numbers indicated that the difference in means in the district court, like in the ITC, were not statistically significant.¹⁰¹

Of particular interest are those parallel district court cases involving electronics and computer-related technologies. These are shown, next to the ITC data, in Table 8 below, looking at consolidated defendants/respondents.

	Pre-Kyocera		Post-Kyocera	
	ITC	D.Ct.	ITC	D.Ct.
Mean	5.66	4.25	4.72	3.75
St. Dev.	8.35	6.87	5.87	6.10
Median	2	1	2	1

Table 8–Number of Respondents/Defendants Named (Consolidated) - Electronics/Computer-Related

*19 As with the ITC numbers, the difference in the average number of respondents in district court electronics and computer-related cases was not statistically significant.¹⁰² This holds true when looking at the raw number of defendants as well.¹⁰³

C. GEOs Granted

The number of GEOs granted before and after Kyocera was collected. Two GEOs were granted in the 87 investigations started before Kyocera; none have yet been issued after.¹⁰⁴ One GEO grant came before Kyocera was issued and one after. However, not enough time has passed for those investigations after Kyocera to reach a final determination, that is, to have survived past presidential review, at the time of this study.

Another factor one can look at to determine whether complainants are pushing harder for GEOs is whether they are naming a large number of respondents. The more respondents named, the easier it is for a complainant to meet the numerosity and inability to identify requirements for a GEO.¹⁰⁵

Looking at the 174 investigations in the data set, sixteen (16) of the investigations prior to Kyocera named more than ten respondents, while twenty-two (22) investigations after Kyocera named more than ten. This difference is not statistically significant.¹⁰⁶ When the respondents are consolidated, there is no difference before and after Kyocera. Thirteen investigations both before and after Kyocera name ten or more consolidated respondents.

D. ITC Filings

The number of ITC filing was also looked at. First, the ITC complaint data was examined in two windows--a two-year period prior to Kyocera, and a two-year period after. In Table 9, below, the total number of Section 337 investigations, involving utility patents, in both of these windows is reported. The data in Table 9 is also broken up by technology.

	2 Years Prior to Kyocera	2 Years After Kyocera
Total	68	74
Electronics/Computer-Related	45	62
Chemistry/Biotechnology/Pharmaceutic al	12	2
Mechanical	11	10

***20 Table 9- Number of Section 337 Investigations**

The number of investigations in a two-year period is higher after *Kyocera*, with 74 investigations being filed. This is six more than those filed two years before *Kyocera*. When looking at only electronics and computer-related technologies, the increase in investigation after *Kyocera* is greater, with 62 investigations after *Kyocera* compared to 45 before. The opposite effect is seen in the other technology fields, with the greatest drop in the biological, chemical, and pharmaceutical field.

Next, the rate of investigations initiated over time was observed. Specifically, Graph 1, below, shows the number of Section 337 investigations filed per month from April 2006 to December 2010.¹⁰⁷

TABULAR OR GRAPHIC MATERIAL SET FORTH AT THIS POINT IS NOT DISPLAYABLE

Graph 1- Number of 337 Investigations Filed Per Month

*21 A linear regression plot line is overlaid in Graph 1 on the data observed. It shows an increase in ITC Section 337 investigations, with *Kyocera* issuing at essentially the center of the graph in October of 2008. From April of 2006 until December of 2010, it appears the average number of ITC complaints initiated a month has gone up from a little over two a month to almost four a month.

V. Implications for Kyocera and the ITC as a Patent Venue

A. Data Does Not Support the Post-Kyocera Predictions

The data collected does not support any of the predictions of *Kyocera*'s impact.

1. Named Respondents Did Not Increase

The number of respondents named after *Kyocera* did not increase as predicted from the number named prior to *Kyocera*. The average raw number of respondents raised slightly (6.62 to 6.95).¹⁰⁸ When looking at the consolidated numbers, the respondents named actually went down by a greater magnitude (5.31 to 4.87).¹⁰⁹ Neither of these changes is statistically significant.¹¹⁰ These results run counter to predictions that the number of respondents would increase to capture downstream product importers. The number of named respondents has remained essentially constant.

In addition, when looking at the subset of investigations filed before *Kyocera* but still pending when *Kyocera* was issued, the data also does not support the hypothesis that respondents named will increase. For all 39 investigations that fit within this category, the complainant did not add respondents after *Kyocera*.

The results run counter to the hypothesis even more when focusing on the industry that *Kyocera* is most likely to have a negative impact--the electronics and computer-related industries. The number of named respondents decreased both when reported as raw results (7.22 to 7.03) and consolidated (5.66 to 4.72).¹¹¹ These differences were also not statistically

significant.¹¹² Such results further rebut the assumption that patentees in this industry would increase the number of named respondents when filing ITC complaints.

The results are not conclusive, however. When looked at in isolation, there is no control to ensure that changes in the number of respondents are due solely, if at all, to the Kyocera decision. Other legal and economic changes can also influence the number of respondents named. The results reported above do not control for *22 such influences. And thus, it might be that Kyocera actually did increase the number of respondents, but there were countervailing influences that pushed the number down, masking the impact of Kyocera.

But the results in parallel district court cases suggest there were no such influences. These cases include some of the exact same facts as the ITC cases-- similar patents, similar alleged infringers, and filed around the same time. And in these cases the number of defendants did not change much at all from before to after the Kyocera decision, with the raw number of defendants (5.62 to 5.70) and consolidated number of defendants (3.98 to 4.22) essentially staying constant.¹¹³ These differences were found to not be statistically significant.¹¹⁴ When Kyocera is taken away, but the other facts stay essentially the same, there is no change in number of accused infringers. This suggests no such external factors where present, or at the very least, impacted how many defendants a patentee would name in a given litigation.¹¹⁵ Admittedly, the ITC and district court cases are not exactly the same, given the jurisdictional and likely defendant differences.¹¹⁶ However, the parallel district court data discount an alternative explanation for the ITC results. That is, the district court data supports the conclusion that Kyocera did not increase the number of respondents.

The ITC data could also be discounted because, even when isolated to just electronic and computer-related technologies, the cases considered are too broad. The focus needs to be on changes in respondent numbers in cases that involved downstream importers--the specific types of cases Kyocera impacts.¹¹⁷

This is a valid critique. But doing such a narrow study with any accuracy would be very difficult. When looking at those ITC cases that name more than ten respondents prior to and after Kyocera, no statistical differences in the number of such cases is observed.¹¹⁸ Cases with downstream importers, particularly after Kyocera, would likely be those that name a large number of respondents (e.g., more than ten). It turns out that there is no real uptick, or any change, in the number of such cases filed at the ITC after Kyocera.

2. GEO Grants Did Not Increase

The rate of GEO grants did not change much either. Just as infrequent as they were before Kyocera, they are after. Only two were granted over the almost five *23 year period observed.¹¹⁹ These were granted on two investigations started prior to Kyocera, with one GEO actually granted after Kyocera.¹²⁰ And, when using the naming of a large number of respondents as a proxy for a complainant trying to obtain a GEO, no statistically significant change before and after Kyocera is observed.¹²¹ There does not appear to be much of a change in reliance on or granting of GEOs after Kyocera.

3. ITC Filings Did Increase

Given the two results observed above--the number of respondents and GEO has not increased--the natural conclusion would be that patentees have simply deserted the ITC. Without these two safety valves to get around the restrictions of Kyocera being used, the ITC is no longer a viable venue.¹²² Instead of using the workarounds, patentees must be forgoing the ITC altogether.¹²³

The data shows that this is not the case. The rate of ITC filings continues to increase, with Kyocera not dampening the trend at all.¹²⁴ The increase over the four-year period observed is quite large, with the number of investigations started per month almost doubling. A linear regression establishes this fact.

And in the industry that is the most likely to be affected by Kyocera, the electronics and computer-related industries, the increase is the most significant amongst the various technologies observed. The number of investigations increased from 45 before to 62 after Kyocera.¹²⁵

B. Data Implications Regarding the ITC as a Patent Venue

The data provides insights regarding the ITC beyond discounting the hypotheses of Kyocera's impact. Most significantly, the data shows how attractive, and in turn used, the ITC is for patent enforcement.

Initially, the fact that ITC filings have continued to increase, even though the scope of remedies available at the ITC, due to Kyocera, has decreased, reinforces that patentees favor the ITC as a venue. Even with restricted remedies, patentees still file ITC actions and the amount of filings is still increasing. This suggests that the other advantages--jurisdictional-breadth, speed of adjudication, high-likelihood of injunctive relief--have tremendous perceived individual value to the patentee. *24 Kyocera has not dampened these advantages and patentees, by continuing to increase their usage of the ITC, confirm this fact.

Second, the data confirms some common assumptions about the ITC. The data shows that the ITC is mainly a venue for electronic and computer-related patent disputes. Of the 174 investigations looked at, 130 investigations (75%) involved the electronic and computer-related industries. And the trend is toward an even greater prevalence of these industries at the ITC, with 74 of the last 87 investigations (85%) at the ITC involving patents covering electronics and computer-related technologies.

Third, the filing of a parallel district court cases is extremely common. Of the 174 investigations observed, parallel district court cases were filed in 154 of those cases (89%). This means that around the same time of an ITC case, at least one of the patents in that ITC case was also the subject of a district court patent infringement case. This data falls in line with that observed by Chien in an earlier study, finding that "there was close to a 90 percent likelihood that, for any given ITC dispute, at least one of the patents litigation was also at some point the subject of a district court dispute."¹²⁶ ITC actions, therefore, cannot be considered in isolation. They are almost always part of a larger, multi-venue push to enforce patent rights in the United States.

VI. Conclusion

The results are surprising. While consensus is that Kyocera should either increase the number of respondents, reliance upon and granting of GEOs, or both, neither has happened; this is true even in the electronics and computer-related industries that were predicted to be hit the hardest. Even with no such correction by patentees to obtain exclusion orders having pre-Kyocera scope, the usage of the ITC continues to rise.

These findings do more than simply answer open questions regarding Kyocera. Their significance is much broader. The results speak volumes to the favorability of the ITC as a venue for patent enforcement. In the face of a dramatic change in the law that significantly reduced the remedies available at the ITC, ITC filings continued to increase. The ITC is clearly a major part of patent enforcement landscape in the United States.

Footnotes

¹ Professor of Law, Intellectual Property Institute, University of Richmond School of Law. This Article received a 2011 competitive grant from Samsung and Stanford Law School for scholarship in the area of patent remedies. Thanks go to Dawn-Marie Bey, Juliana Cofrancesco, Peter Lee, Karin Norton, and Rafael Pardo on an earlier draft.

² 19 U.S.C. § 1337(b) (2006).

³ Colleen Chien, *Patently Protectionist? An Empirical Analysis of Patent Cases at the International Trade Commission*, 50 Wm. & Mary L. Rev. 63, 67 (2008) (noting that the 1930 Trade Act established the "Section 337" action before the ITC for patent infringement).

⁴ Sapna Kumar, *The Other Patent Agency: Congressional Regulation of the ITC*, 61 Fla. L. Rev. 529, 529 (2009) (stating that the ITC "has recently experienced a dramatic increase in patent infringement investigations").

⁴ Id.

⁵ See Chien, *supra* note 2, at 69.

⁶ David Schwartz, Courting Specialization: An Empirical Study of Claim Construction Comparing Patent Litigation Before Federal District Courts and the International Trade Commission, 50 *Wm. & Mary L. Rev.* 1699, 1709-11 (2009).

⁷ Robert Hahn & Hal Singer, Assessing Bias in Patent Infringement Cases: A Review of International Trade Commission Decisions, 21 *Harv. J. L. & Tech.* 457, 460 (2008).

⁸ 545 F.3d 1340 (Fed. Cir. 2008).

⁹ The EPROM factors are set forth in Certain Erasable Programmable Read-Only Memories, Components Thereof, Products Containing Such Memories, and Processes for Making Such Memories, USITC Pub. 2196, Inv. No. 337-TA-276, at 125 (May 1989).

¹⁰ Kyocera, 545 F.3d at 1355-56 (citing 19 U.S.C. § 1337(d)).

¹¹ Id. at 1356 (citing 19 U.S.C. § 1337(d)(2)(A) and (B)).

¹² See Symposium, Where is the ITC going after Kyocera?, 25 *Santa Clara Comp. & High Tech. L.J.* 701 (2009).

¹³ See, e.g., Sidley Austin LLP, General Exclusion Orders in the Wake of Kyocera, Intellectual Property: ITC Section 337 Update, (Sept. 9, 2009), available at <http://www.sidley.com/SidleyUpdates/Detail.aspx?news=4152>.

¹⁴ 19 U.S.C. § 1337 (2006); Kumar, *supra* note 3, at 534 (“Patent litigation in the ITC differs significantly from litigation in federal court.”); Hahn & Singer, *supra* note 7, at 460-61.

¹⁵ 19 U.S.C. § 1337(d) (setting forth exclusion standards); Kumar, *supra* note 3, at 537-38.

¹⁶ 19 U.S.C. § 1337(b)(1); Kumar, *supra* note 3, at 536.

¹⁷ 19 U.S.C. § 1337(a)(1); Kumar, *supra* note 3, at 536.

¹⁸ 19 U.S.C. § 1337(b), (c); Kumar, *supra* note 3, at 536-37 (setting forth ITC procedures for patent actions).

¹⁹ *Tex. Instruments, Inc. v. U.S. Int'l Trade Comm'n*, 851 F.2d 342, 344 (Fed. Cir. 1988); Chien, *supra* note 2, at 74-75.

²⁰ Hahn & Singer, *supra* note 7, at 460 (Figure 1).

²¹ Id.

²² See *id.* (“A review of the ITC Database of section 337 investigations ... suggests that other important industries are affected by the

ITC's role in patent law, including computers, semiconductors, and communications systems.”).

²³ Id. at 461.

²⁴ 19 U.S.C. § 1337(a)(1); Hahn & Singer, *supra* note 7, at 461; Kumar, *supra* note 3, at 535.

²⁵ Hahn & Singer, *supra* note 7, at 461; see also Kumar, *supra* note 3, at 535 (“The ITC also has nationwide jurisdiction to conduct investigations, including nationwide service of process for subpoena enforcement actions.”).

²⁶ Hahn & Singer, *supra* note 7, at 461.

²⁷ See, e.g., Mark A. Lemley, *Where to File Your Patent Case*, 38 *AIPLA Q. J.* 401, 403 (2010) (“Patent plaintiffs generally want speed.”).

²⁸ 19 U.S.C. § 1337(b)(1); *Where is the ITC Going After Kyocera?*, *supra* note 12, at 704.

²⁹ Chien, *supra* note 2, at 101-102.

³⁰ Hahn & Singer, *supra* note 7, at 490 (finding a bias at the ITC in favor of patent holders). But cf. Chien, *supra* note 2, at 98 (finding that data does not support the hypothesis that the ITC is biased against defendants).

³¹ Hahn & Singer, *supra* note 7, at 461-62 (“The perception that patent holders enjoy an advantage at the ITC is reinforced statistically.”).

³² Id. at 462-64; David Schwartz, *Courting Specialization: An Empirical Study of Claim Construction Comparing Patent Litigation Before Federal District Courts and the International Trade Commission*, 50 *Wm. & Mary L. Rev.* 1699, 1709 (2009).

³³ 19 U.S.C. § 1337(d), (f); Hahn & Singer, *supra* note 7, at 462.

³⁴ 19 U.S.C. § 1337(d)(1); Kumar, *supra* note 3, at 537-538.

³⁵ 19 U.S.C. § 1337(d)(2); Kumar, *supra* note 3, at 538.

³⁶ 19 U.S.C. § 1337(d)(2); Kumar, *supra* note 3, at 538.

³⁷ Civil penalties are also available to remedy violations of exclusion and cease and desist orders. See 19 U.S.C. § 1337(f).

³⁸ Hahn & Singer, *supra* note 7, at 462; see also Chien, *supra* note 2, at 99 (“[Prevailing patentees are] essentially guaranteed to get [an injunction] in the ITC (79 percent injunction rate vs. 100 percent injunction rate.”).

³⁹ *eBay Inc. v. MercExchange*, 547 U.S. 388 (2006) (holding four-factor test for permanent injunction relief applies to disputes under the Patent Act).

⁴⁰ Spansion, Inc. v. Int'l Trade Comm'n, 629 F.3d 1331, 1359 (Fed. Cir. 2010).

⁴¹ See generally Mark Lemley & Carl Shapiro, Patent Holdup and Royalty Stacking, 85 Tex. L. Rev. 1991 (2007).

⁴² Where is the ITC Going after Kyocera?, *supra* note 12, at 709.

⁴³ *Id.*

⁴⁴ Certain Erasable Programmable Read-Only Memories, Components Thereof, Products Containing Such Memories, and Processes for Making Such Memories, USITC Pub. 2196, Inv. No. 337-TA-276, at 125 (May 1989).

⁴⁵ *Id.*

⁴⁶ Kyocera, 545 F.3d at 1345-46.

⁴⁷ *Id.* at 1346.

⁴⁸ *Id.*

⁴⁹ *Id.*

⁵⁰ *Id.* (quoting the ITC's LEO).

⁵¹ *Id.* at 1354.

⁵² *Id.* at 1354-5.

⁵³ *Id.* at 1356.

⁵⁴ *Id.* at 1355-56.

⁵⁵ *Id.* (quoting 19 U.S.C. § 1337(d)(1)).

⁵⁶ *Id.*

⁵⁷ *Id.* at 1356 (citation eliminated).

⁵⁸ *Id.* at 1358.

⁵⁹ *Id.* at 1357.

60 Id.

61 Where is the ITC Going after Kyocera?, *supra* note 12, at 710-13.

62 Michael Lyons et al., *Exclusion of Downstream Products After Kyocera: A Revised Framework for General Exclusion Orders*, 25 Santa Clara Computer & High Tech. L.J. 821, 822-23 (2009) (“Obviously, a patent holder seeking to exclude only the downstream products of the manufacturer of the infringing component itself would be unaffected by the [Kyocera] decision, as would a patent holder that can name all possible downstream infringers as respondents in the investigation.”).

63 Id. at 833 (“[P]atent holders should consider seeking a general exclusion order to exclude downstream products”).

64 See, e.g., *id.*; see also *Where is the ITC Going After Kyocera?*, *supra* note 12, at 715-17.

65 *Where is the ITC Going After Kyocera?*, *supra* note 12, at 716; Lyons et al., *supra* note 62, at 832-33.

66 Id.

67 Kyocera, 545 F.3d at 1357.

68 Id.

69 Kyocera, 545 F.3d at 1357-58.

70 19 U.S.C. § 1337(d)(2) (2006).

71 See *Where is the ITC Going After Kyocera?*, *supra* note 12, at 720-21.

72 Id.

73 Lyons et al., *supra* note 62, at 832-33 (noting that adding more respondents may not be practical).

74 *Where is the ITC Going after Kyocera?*, *supra* note 12, at 716.

75 Id.

76 Id.

77 Id.

78 Brian Busey, *Federal Circuit Limits ITC’s Authority to Issue Downstream Exclusion Orders*, Morrison Foerster, (Oct. 15, 2008),

<http://www.mofo.com/federal-circuit-limits-itcs-authority-to-issue-downstream-exclusion-orders-10-15-2008/>.

⁷⁹ Where is the ITC Going After Kyocera?, *supra* note 12, at 716-17; Lyons et al., *supra* note 62, at 833-34.

⁸⁰ Kyocera, 545 F.3d at 1358; Where is the ITC Going After Kyocera?, *supra* note 12, at 717-20.

⁸¹ Where is the ITC Going After Kyocera?, *supra* note 12, at 717.

⁸² 19 U.S.C. § 1337(d) (2006).

⁸³ Where is the ITC Going After Kyocera?, *supra* note 12, at 718.

⁸⁴ In fact, one article suggests that data right after Kyocera supported this conclusion. *Id.* at 720-21 (finding a 43% decrease over a three month period after Kyocera).

⁸⁵ *Id.* at 720.

⁸⁶ Section 337 actions based solely on design patents and trademarks were not included in the study.

⁸⁷ 337 Investigational History, USITC, available at http://www.usitc.gov/intellectual_property/inv_his.htm (last visited Oct. 26, 2011).

⁸⁸ Previous articles by this author, and others, have used fourteen industry categories to identify a particular patent case with a given technology. See John R. Allison & Mark A. Lemley, Who's Patenting What? An Empirical Exploration of Patent Prosecution, 53 Vand. L. Rev. 2099, 2110-12 (2000) (listing and defining the 14 categories); Christopher Cotropia & Mark Lemley, Copying in Patent Law, 87 N.C. L. Rev. 1421, 1445 n.101 (2009) (explaining the use of the 14-category system). Here, given the low numbers of patent cases being considered, the technology categories have been combined and simplified, into three categories--(1) Electronics and Computer-Related technologies; (2) Chemistry, Biotechnology, and Pharmaceutical technologies; and (3) Mechanical technologies.

⁸⁹ For example “Research In Motion, Ltd., Canada” and “Research In Motion Corporation, Irving TX” were named as separate respondents in one investigation. Wireless Communications System Server Software, Wireless Handheld Devices and Battery Packs, Inv. No. 337-TA-706 (Feb. 24, 2010) (Completed).

⁹⁰ To give another example, “Samsung Electronics Co., Ltd., South Korea,” “Samsung Electronics America, Inc. Ridgefield park, NJ,” “Samsung International, Inc. San Diego, CA,” “Samsung Semiconductor, Inc., San Jose, CA,” and “Samsung Telecommunications America, LLC, Richardson, TX,” were named as separate respondents in one investigation and counted as a single respondent upon consolidation. Flash Memory Chips and Products Containing the Same, Inv. No. 337-TA-735 (Sept. 13, 2010) (Pending).

⁹¹ Obviously, the study wanted to avoid counting an upstream and downstream producer as a single entity. While these two producers are related-- one using the others product in the product they are making--they are counted separately even when consolidating respondents.

⁹² This information is also obtained from, again, the ITC’s online, 337 action database. 337 Investigational History, USITC, available at <http://info.usitc.gov/oui/public/337inv.nsf/All?OpenView&Start=1> (last visited Oct. 26, 2011).

93 See Chien, *supra* note 2, at 92-93 (documenting parallel litigations).

94 *Id.* at 94 n.165.

95 See Stanford IP Litigation Clearinghouse, Stanford Law School <http://lawstanford.edu/program/centers/iplc> (last visited October 24, 2011).

96 See James H. Stock & Mark W. Watson, *Introduction to Econometrics* 68-70 (2003) (describing the t-test).

97 The t-test produced a p-value of 0.7922 for the raw number of respondents and 0.6957 for the consolidated numbers. For the distribution to be statistically significant, a p-value must be less than 0.05. See David Freedman et al., *Statistics* 484 (3d ed. 1998). A p-value less than 0.01 is considered highly statistically significant. *Id.*

98 Similar results are observed when using the raw respondent numbers.

99 The t-test produced a p-value of 0.4641. When looking at the raw number of respondents, the t-test produced a p-value of 0.4652.

100 See, e.g., *In re Certain Computer Products, Computer Components and Products Containing the Same*, Inv. No. 337-TA-628 (Jan. 31, 2008) (adding two additional respondents after the complaint was filed).

101 The t-test produced p-values of 0.9304 for the raw number of respondents and 0.9281 for the consolidated number.

102 The t-test produced a p-value of 0.6779.

103 The t-test produced a p-value of 0.5855.

104 See Coaxial Cable Connectors and Components Thereof and Products Containing Same, Inv. No. 337-TA-650; Ink Cartridges and Components Thereof, Inv. No. 337-TA-565 (granting GEO before and after Kyocera).

105 19 U.S.C. § 1337(d)(2).

106 Using the Pearson's chi-squared test, a two-tail p-value of 0.18 was observed.

107 This is for only those Section 337 actions including utility patents.

108 See *supra* Table 1.

109 See *supra* Table 2.

110 See *supra* note 97.

111 See *supra* Table 3.

¹¹² See *supra* note 100.

¹¹³ See *supra* Tables 7 & 8.

¹¹⁴ See *supra* note 102.

¹¹⁵ Or at the very least, any that were present offset each other in their impact on number of respondents.

¹¹⁶ See *supra* Part II.A. (detailing differences/advantages of the ITC).

¹¹⁷ See *Kyocera*, 545 F.3d at 1345, 1357-58 (discussing the statutory authority of the ITC to grant GEOs and LEOs against downstream products of non-respondents).

¹¹⁸ See *supra* Part III.C.

¹¹⁹ *Id.*

¹²⁰ *Id.*

¹²¹ *Id.*

¹²² See *supra* Part II.B.

¹²³ *Id.*

¹²⁴ See *supra* Graph 1.

¹²⁵ See *supra* Table 9.

¹²⁶ See Chien, *supra* note 2, at 92.