

How USPTO Examiner Type Affects Patents: Part 2

By **Michael Sartori and Matt Welch** (June 16, 2020)

Patent procurement at the U.S. Patent and Trademark Office is affected by the type of examiner.

We gathered data from the LexisNexis PatentAdvisor database for each year from 2009 to 2019, for examiners in each of eight nondesign Tech Centers at the USPTO from the LexisNexis PatentAdvisor patent prosecution analytics database.

The data shows that the type of examiner can cause an applicant to double their efforts to obtain a patent. This doubled effort is evident in the allowance rate, the number of office actions needed per disposal (patent or abandonment), the time to disposal, applications with at least one final office action, and applications with at least one interview. Evidence of extra effort also appears for applications with at least two final office actions and with at least one restriction office action. Due to this distortion, knowing the type of examiner can help an applicant anticipate the likely costs to obtain a patent.

Part 1 of this series discussed the examiner types (so-called green, yellow and red examiners) and their effect on the number of patents issuing each year.

Using the LexisNexis PatentAdvisor database, the number of green, yellow and red examiners for each of the eight nondesign Tech Centers at the USPTO was gathered for years 2009 to 2019. The following Figure 1 illustrates the allowance rate for green, yellow and red examiners, as well as all examiners combined.

As can be seen, the allowance rate for the green examiners is higher than the average allowance rate, while the allowance rate for the yellow and red examiners is consistently lower than the average allowance rate. In 2019, the allowance rate for the yellow examiners ticked up to slightly below the average allowance rate. Over the time period, the allowance rate for the green and yellow examiners has steadily increased, while the allowance rate for the red examiners had a 10% dip from 2014 to 2016 and then increased.

Based on this data, the examiner type impacts an applicant's chances of obtaining a patent. With a green examiner, the chance of obtaining a patent has steadily increased from 70% to almost 90% over the time period. With a yellow examiner, the chance of obtaining a patent has steadily increased from 45% to 75%. With a red examiner, the chance of obtaining a patent has ranged from 25% to about 45%.

Over the time period, the average allowance rate for all examiners is 70%, and the average allowance rate for green, yellow and red examiners is 81%, 64% and 38%, respectively. Comparing green examiners and red examiners over this time period, if an application is examined by a green examiner, the application is at least twice as likely as being allowed than if examined by a red examiner.

Figure 1: Allowance Rate by Examiner Type



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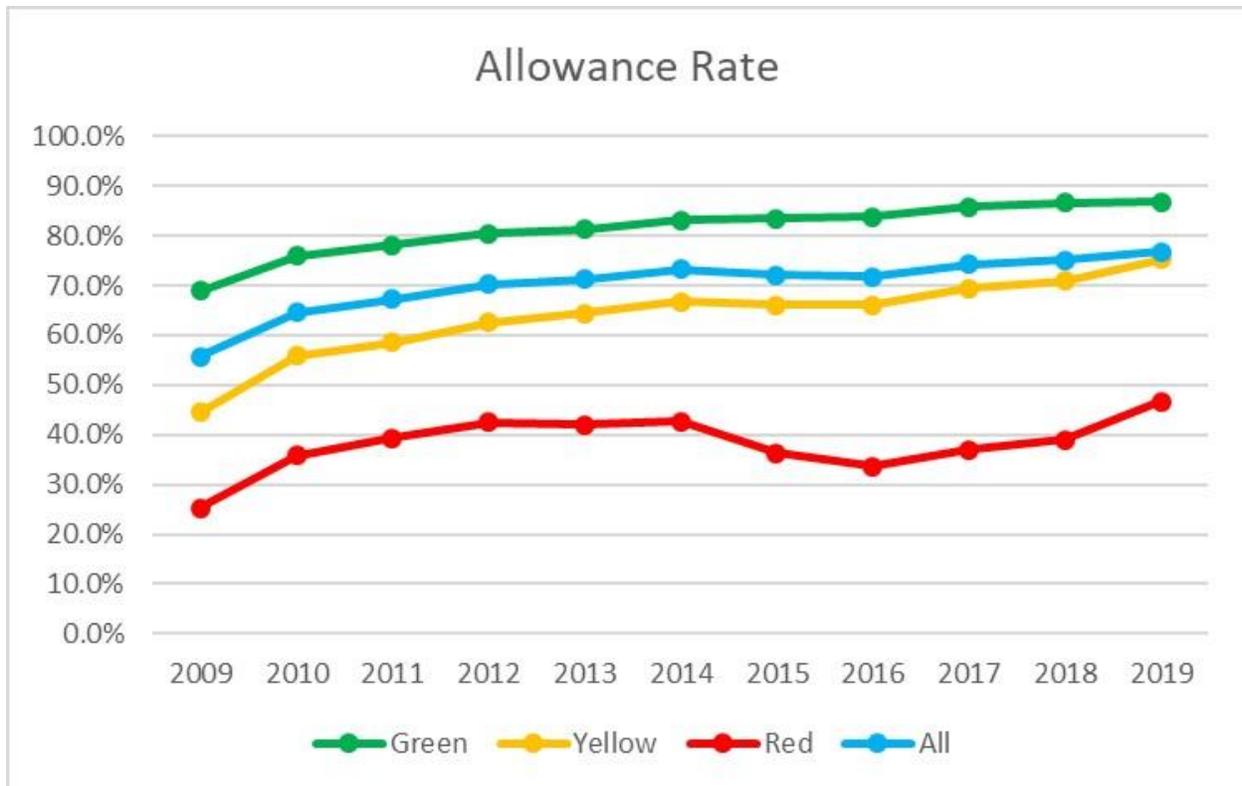


Figure 2 illustrates the average number of office actions required to dispose (either patent or abandon) a U.S. patent application for each examiner type, as well as all examiners combined.

As can be seen, the number of office actions to disposal for green examiners is lower than the average, while the number of office actions to disposal for yellow and red examiners is higher than the average.

Over the time period, the number of office actions for green examiners has decreased from 1.7 to 1.3. For yellow examiners, the number of office actions has ranged from 2.2 to 2.5. For red examiners, the number of office actions increased from 2.4 to 3.3 in 2017 and 2018 and then decreased to 3.2 in 2019. Over the time period, the average number of office actions for all examiners is 2.0, and the average number of office actions for green, yellow and red examiners is 1.5, 2.4 and 2.9 respectively.

Comparing green examiners and red examiners over this time period, if an application is examined by a green examiner, the application will require around half as many office actions than if examined by a red examiner. In other words, about twice as many office actions can be expected if a red examiner examines an application instead of a green examiner.

Figure 2: Average Number of Office Actions to Disposal by Examiner Type

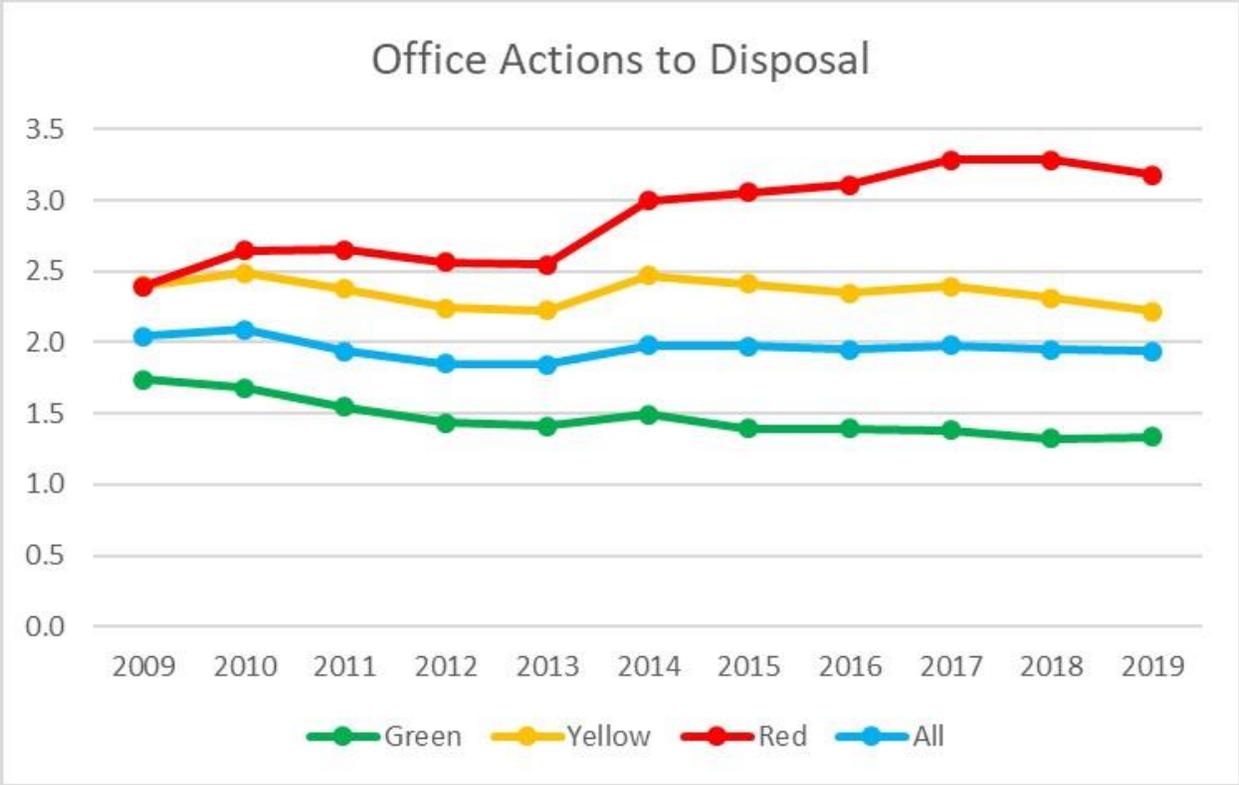


Figure 3 illustrates the average time to disposal (either patent or abandon) for a U.S. patent application for each examiner type, as well as all examiners combined. As can be seen, the time to disposition for green examiners is lower than the average, while the time to disposition for yellow and red examiners is higher than the average.

Over the time period, the time to disposition for green examiners decreased from 3.3 to 2.1 years in 2018 and then slightly increased up to 2.2 years in 2019. For yellow examiners, the time to disposition peaked at 4.1 years in 2010 and decreased to 2.9 years in 2019. For red examiners, the time to disposition has ranged between 4.0 and 4.3 years. Over the time period, the average time to disposition for all examiners is 3.2 years, and the average time to disposition for green, yellow and red examiners is 2.7, 3.5 and 4.2 years, respectively.

Comparing green examiners and red examiners over this time period, especially in recent years, if an application is examined by a green examiner, the application will take about half as long to reach a disposition than if examined by a red examiner. In other words, an application will be pending about twice as long if a red examiner examines the application instead of a green examiner.

Figure 3: Time to Disposal (Years) by Examiner Type

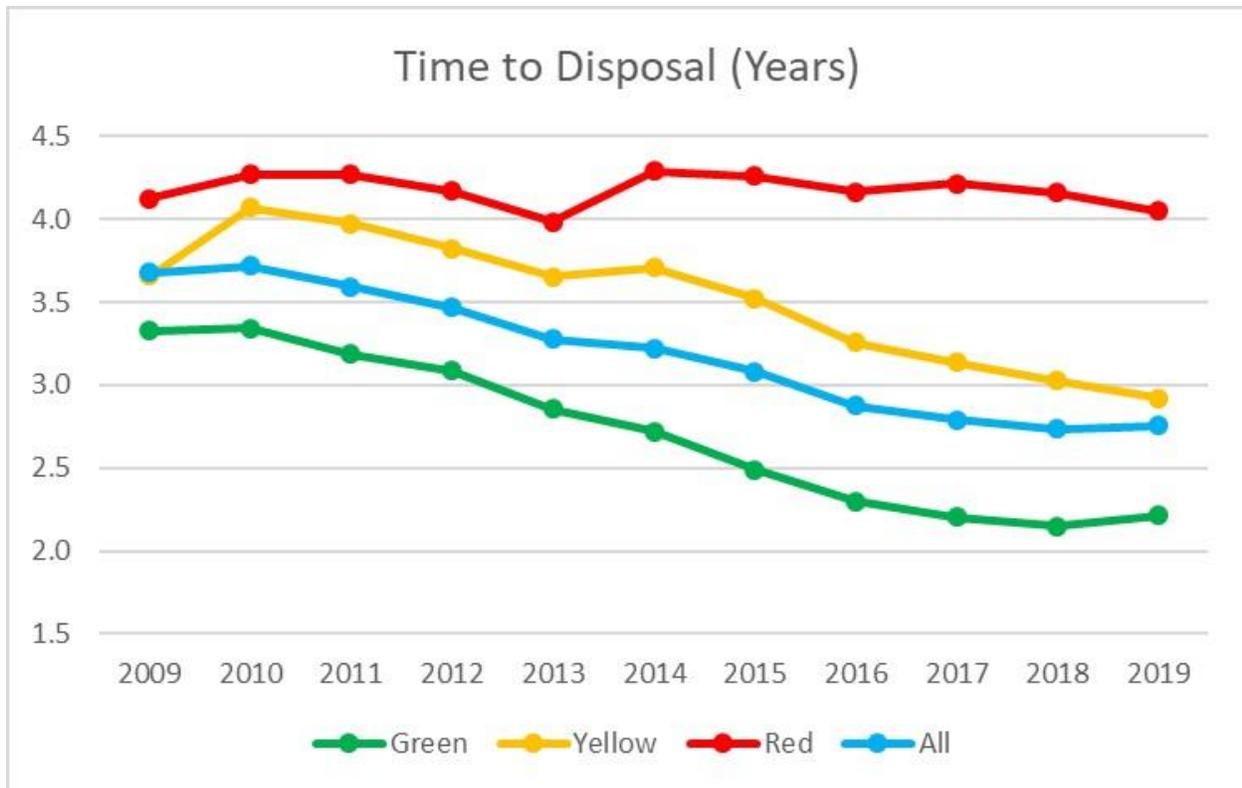


Figure 4 illustrates the percentage of applications (patented or abandoned) with at least one final office action for each examiner type, as well as all examiners combined. As can be seen, the percentage of applications with final office actions when examined by green examiners is less than the average when compared to those examined by yellow and red examiners.

Over the time period, the percentage of applications examined by green examiners that have at least one final office action decreased from 37% to 28%. For yellow examiners, this percentage hovered between 54% and 64%. For red examiners, this percentage increased from 58% to 72%, peaking at 75% in 2014 and 2017. Over these years, the average percentage for all examiners is 46%, and the average percentage for green, yellow and red examiners is 32%, 58% and 68%, respectively.

Comparing green examiners and red examiners over this time period, if an application is examined by a green examiner, the application will have about 50% less chance of having at least one final office action than if examined by a red examiner. In other words, about twice as many applications have at least one final office action if examined by a red examiner instead of by a green examiner.

Figure 4: Percentage of Applications With at Least One Final Office Action by Examiner Type

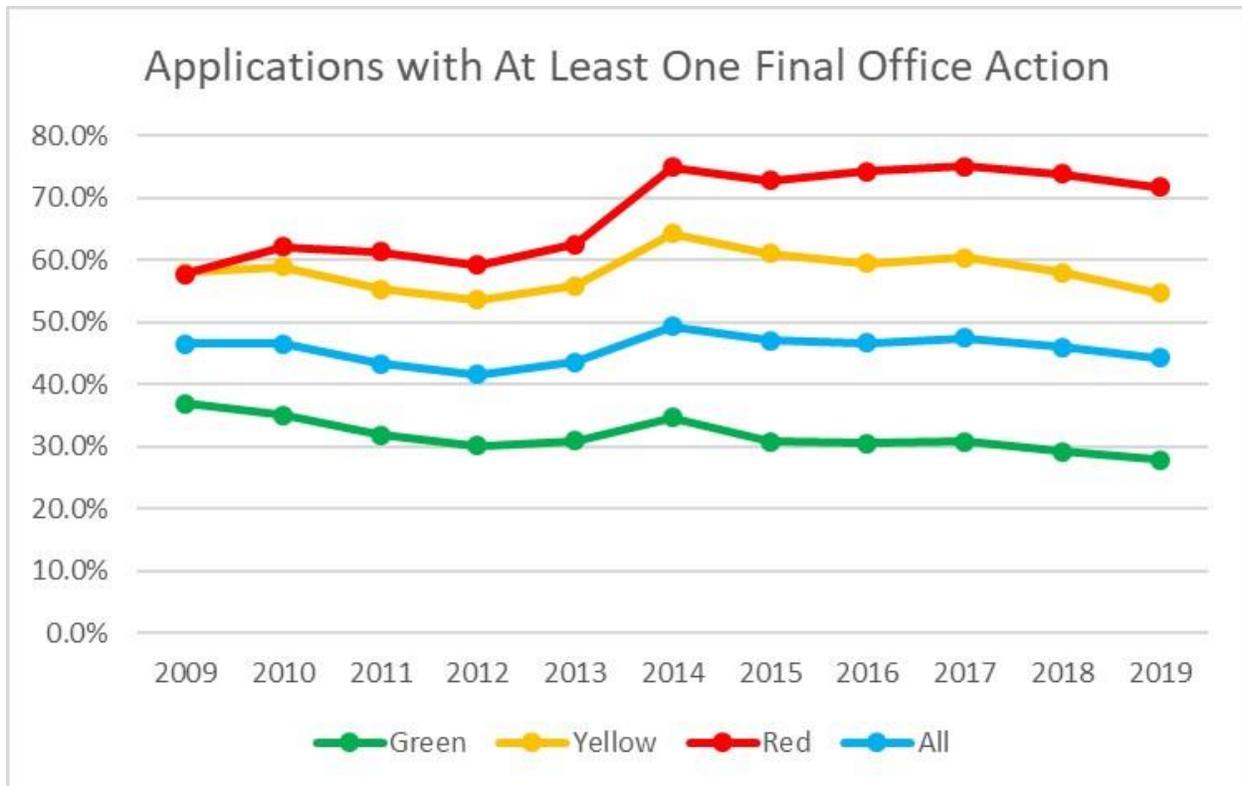


Figure 5 illustrates the percentage of applications (patented or abandoned) with two or more final office actions for each examiner type, as well as all examiners combined. The percentage of applications with two or more final office actions when examined by green examiners is less than the average when compared to those examined by yellow and red examiners.

Over the time period, the percentage of applications examined by green examiners that have at least two final office actions decreased from 9% to 5%. For yellow examiners, this percentage hovered between 17% and 22%. For red examiners, this percentage increased from 20% to 36%, peaking at 40% in 2017. Over these years, the average percentage for all examiners is 14%, and the average percentage for green, yellow and red examiners is 7%, 20% and 31%, respectively.

Compared to Figure 4 for at least one final office action, the impact of red examiners is even more dramatic when considering the statistics for green and yellow examiners, such that applications with two or more final office actions are much more likely with red examiners. Further, when comparing green and red examiners, the doubling factor evident previously increases to more than four times for applications with at least two or more final office actions. This means that if an application is examined by a red examiner, it is more than four times as likely to have at least two or more final office actions than if the application was examined by a green examiner.

Figure 5: Percentage of Applications With Two or more Final Office Actions by Examiner Type

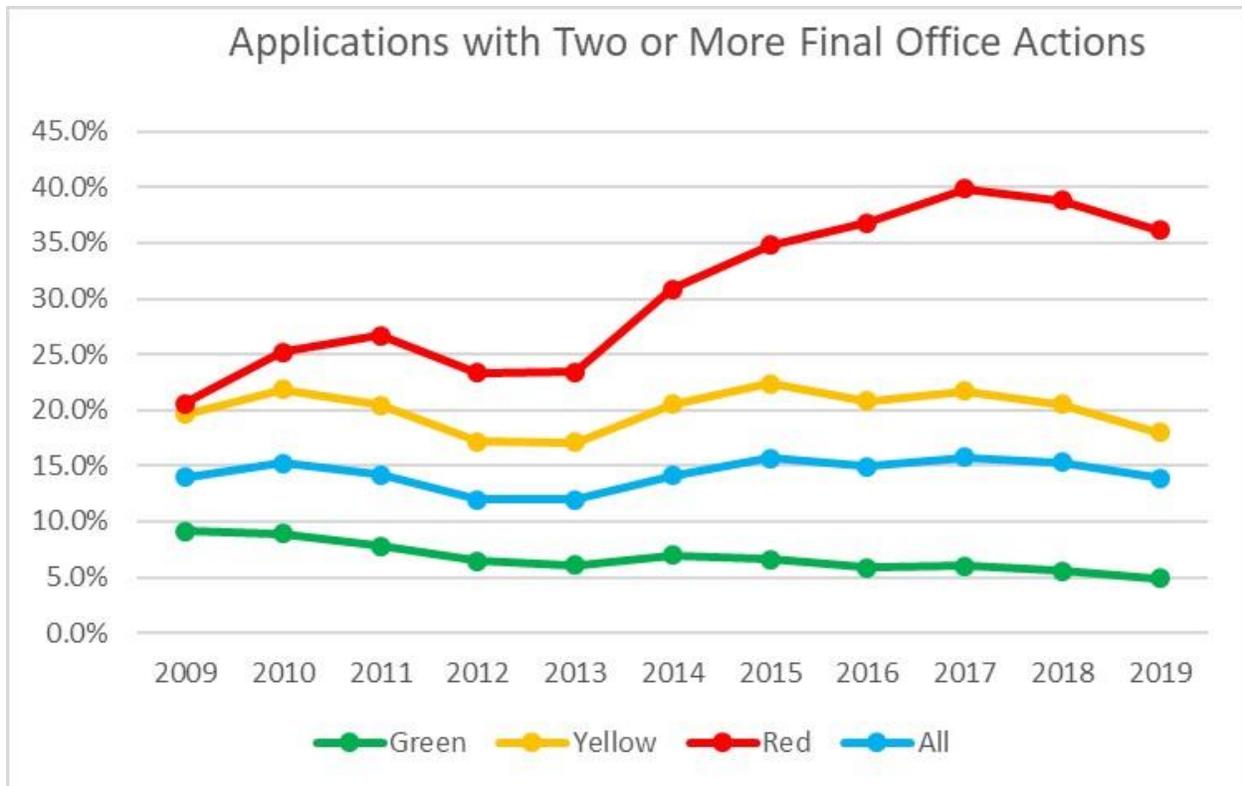


Figure 6 illustrates the percentage of applications (patented or abandoned) with at least one restriction office action. Similar to the above figures, the percentage of applications examined by green examiners have less restriction office actions than the average when compared to those examined by yellow and red examiners.

Over the time period, the percentage of applications examined by green examiners that have at least one restriction office action decreased from 19% to 14%. For yellow and red examiners, this percentage hovered in similar ranges between 20% and 22% for yellow examiners and between 20% and 24% for red examiners. Over these years, the average percentage for all examiners is 20%, and the average percentage for green, yellow and red examiners is 16%, 22%, and 24%, respectively.

Compared to the prior statistics, the impact of red examiners is not as dramatic when compared to green and yellow examiners. Nonetheless, when comparing green and red examiners, especially in recent years, applications examined by red examiners have about 50% more restriction office actions than those examined by green examiners.

Figure 6: Percentage of Applications with a Restriction Office Action by Examiner Type

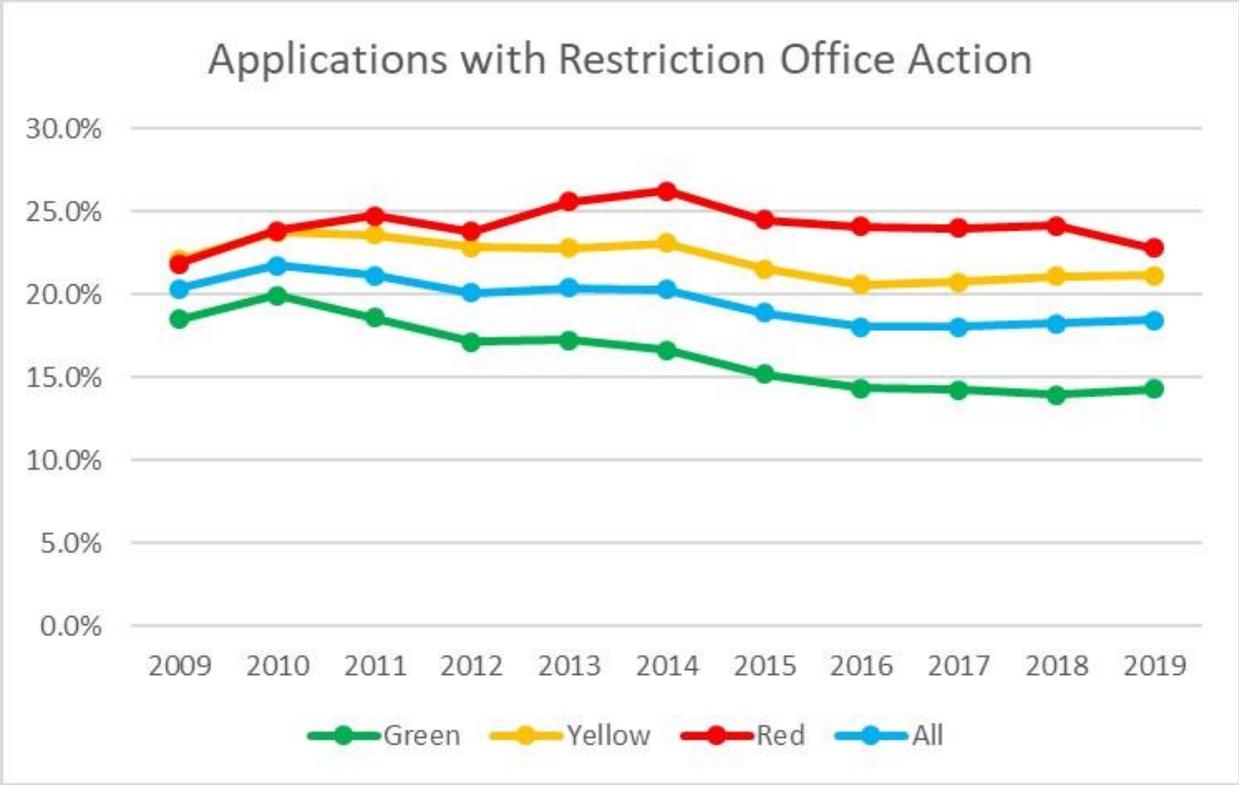
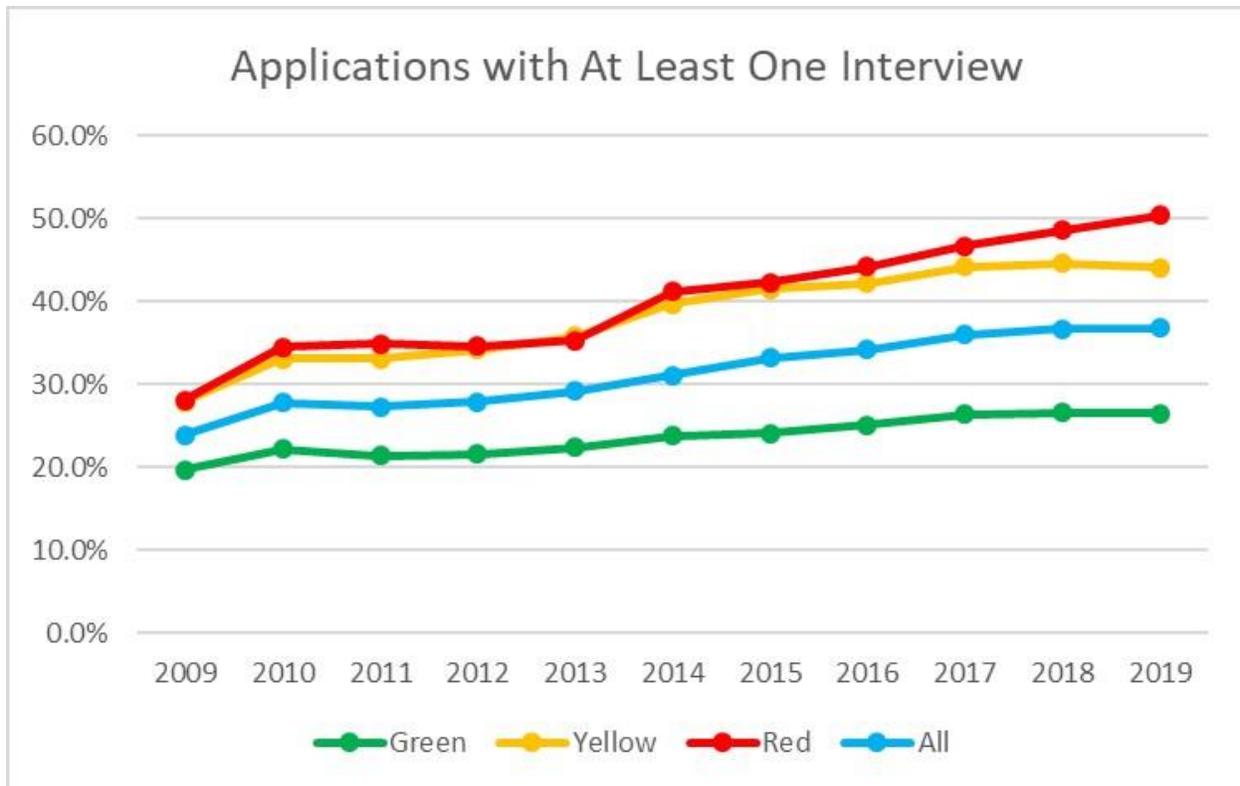


Figure 7 illustrates the percentage of applications (patented or abandoned) with at least one interview. Similar to the above comparisons, the percentage of applications examined by green examiners have less interviews than the average when compared to those examined by yellow and red examiners.

Over the time period from 2009 to 2019, the percentage of applications examined by green examiners that have at least one interview increased from 20% to 27%. For yellow and red examiners, this percentage increased from 28% to 44% for yellow examiners and from 28% to 50% for red examiners. Over these years, the average percentage for all examiners is 31%, and the average percentage for green, yellow and red examiners is 24%, 38% and 40%, respectively.

Comparing green examiners and red examiners over this time period, if an application is examined by a green examiner, the application will have about 50% less chance of having at least one interview than if examined by a red examiner. In other words, about twice as many applications have at least one interview if examined by a red examiner instead of by a green examiner. Such a result of more interviews with red examiners than with green examiners may be expected considering the above statistics, namely that red examiners have a lower allowance rate, more office actions, and more final office actions compared to green examiners.

Figure 7: Percentage of Applications With an Interview by Examiner Type



In conclusion, the cost of patent procurement at the USPTO is affected by the examiner type, which can be categorized as green, yellow and red examiners. For each year from 2009 to 2019, the data shows that having a green examiner examine an application provides better results for allowance rate, number of office actions, average time to disposal, number of final office actions, number of restriction office actions, and number of interviews. In contrast, yellow and red examiners provide opposite results. These differences result in a cost savings for applications examined by a green examiner compared to those examined by yellow and red examiners.

Further, in comparing green examiners and red examiners, the differences over the time period are relatively constant and exhibit an approximate doubling factor for many of the metrics. In particular, if comparing applications examined by a green examiner to applications examined by a red examiner, the applications:

- Are at least twice as likely to be allowed;
- Have about half as many office actions;
- Take about half as long to be examined;

- Have about half as many applications with at least one final office action;
- Have about a quarter as many applications with at least two final office actions;
- Have about a third less restriction office actions; and
- Have about half as many interviews.

As a corollary, for applications examined by a red examiner instead of a green examiner, the applications:

- Have an allowance rate cut in half;
- Have twice as many office actions;
- Take twice as long to examine;
- Have twice as many applications with at least one final office action;
- Have four times as many applications with at least two final office actions;
- Have 50% more restriction office actions; and
- Have approximately twice as many interviews.

This doubling effect manifests in a greater cost savings for applications examined by a green examiner compared to those examined by a red examiner. As such, in practice, knowing the type of examiner for a particular application can help to predict the effort and the costs needed to obtain a patent.

The effect of the examiner type will be further explored in parts three and four of this series. In part three, after final practice based on examiner type is explored, and in part four, the impact of the examiner type is shown to be evident in patent litigation results as well.

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