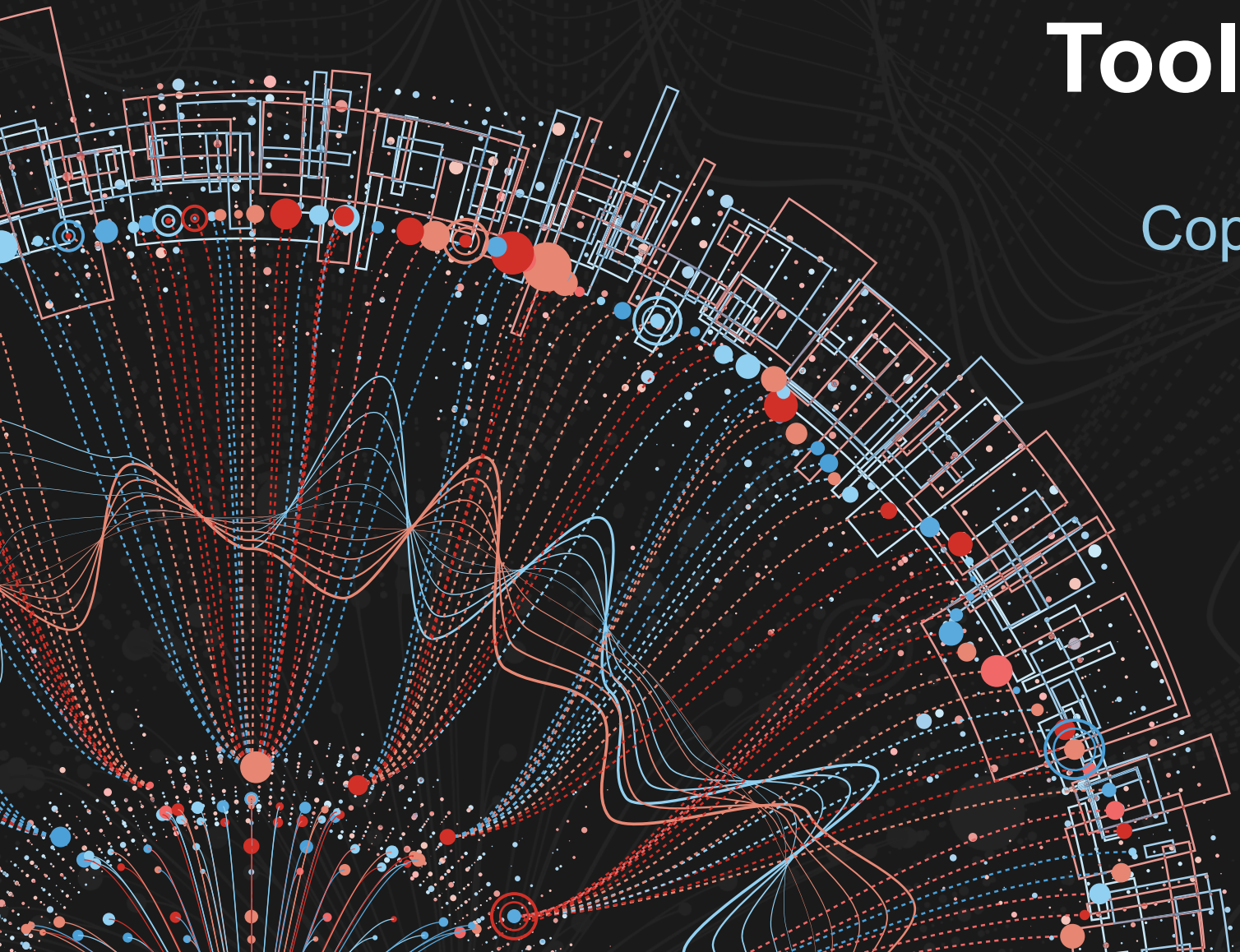


Business Intelligence Tool Implementation

Copyright Office Modernization Webinar Series

February 26, 2020

The webinar will begin promptly at 12:00 pm EST

Copyright
United States Copyright Office

SUBMITTING QUESTIONS

To submit a question, use the Q&A dialog box in the lower right corner. You may submit a question during any portion of this webinar, however, questions will be answered at the end of the presentation.

Please note: we may not be able to answer all questions received in the allotted time. Thank you.

INTRODUCTION

Maria Strong

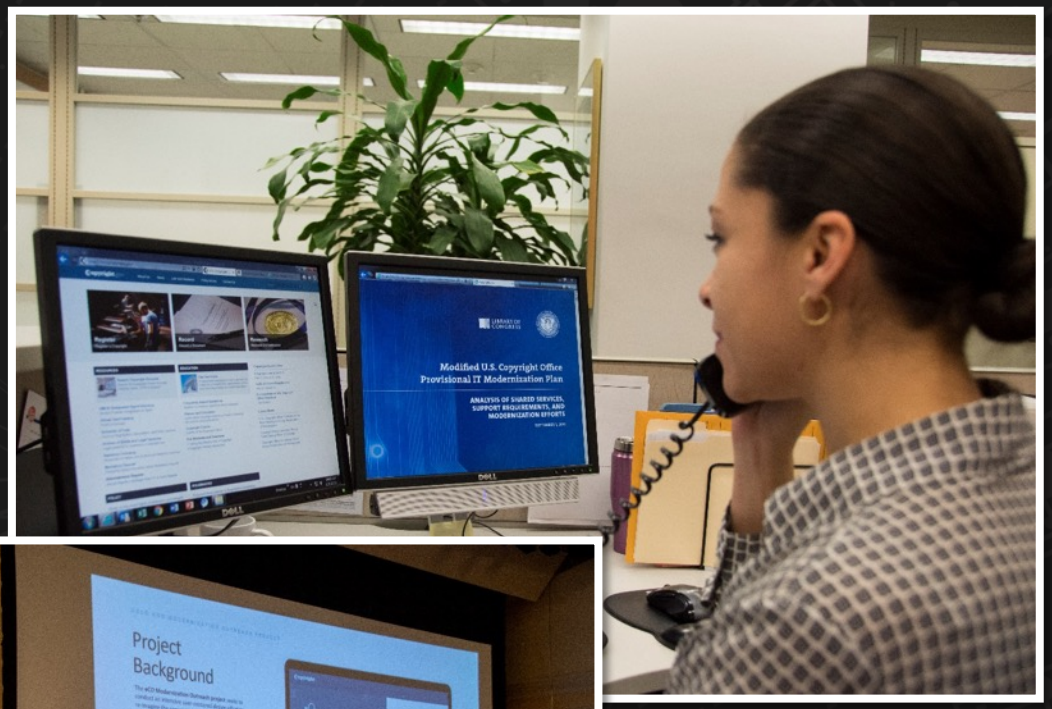
Acting Register of Copyrights
and Director of the U.S. Copyright Office

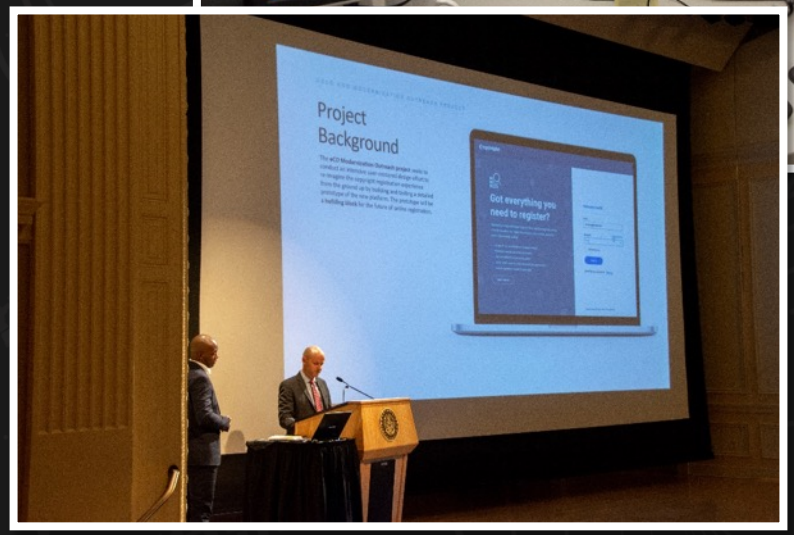
Copyright
United States Copyright Office

MODERNIZATION UPDATE

Ricardo Farraj-Feijoo

Director of the Copyright Modernization Office





Copyright
United States Copyright Office

BUSINESS INTELLIGENCE AT THE OFFICE

Jason Hosford

Data Manager

Our vision is to enable Office staff to discover real-time quantitative analysis through the upcoming business intelligence. This will promote:

- Evidence based decision making;
- Data availability, data transparency, data searchability;
- Identification of data gaps, issues, holdups, and resource crunches;
- Identification of areas for improvement, modification, and streamlining;
- Identification of key metrics and a greater understanding of Office processes and correspondence with the public.

Copyright
United States Copyright Office

WHAT IS BUSINESS INTELLIGENCE?

Business Intelligence is a technology driven process to **collect**, **curate**, and **disseminate** business information for data driven decision making. BI provides access to information and improves data literacy that helps in performance management and streamlining operations.

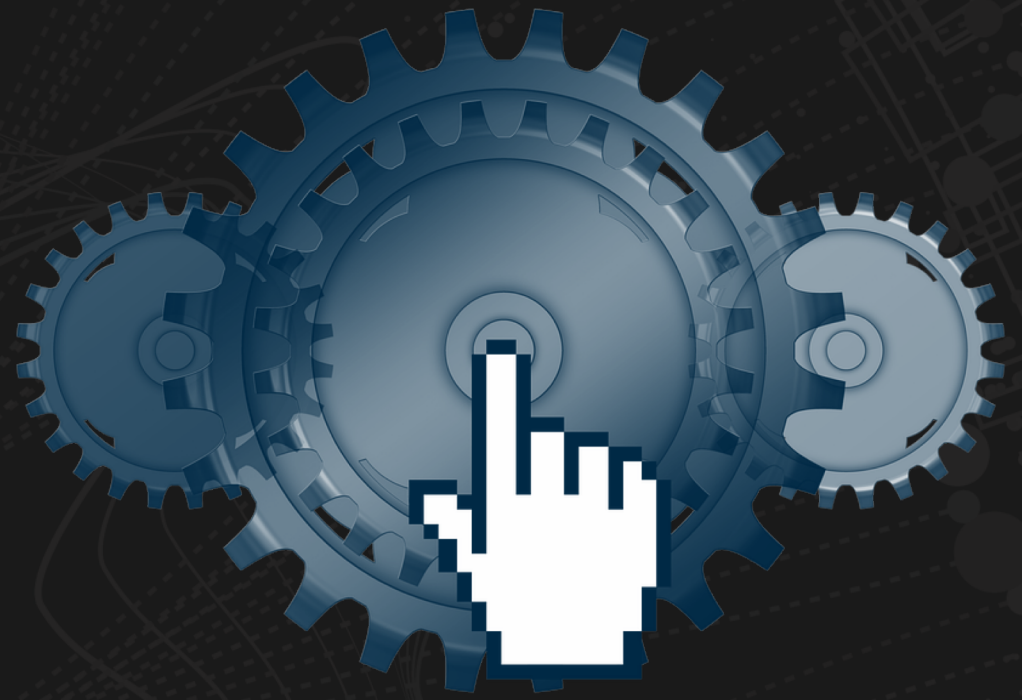
Suman Shukla

Data Management, Section Head

Copyright
United States Copyright Office

COMMON MANAGEMENT QUESTIONS

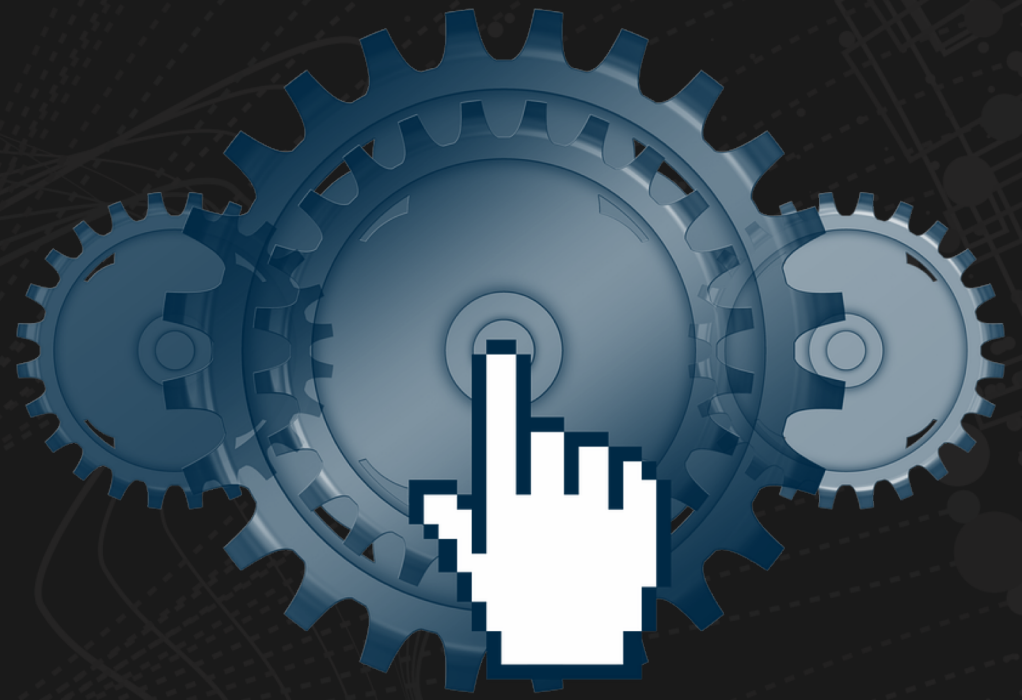
- Just show me what is important.
- Why are two people presenting same metrics with different numbers?
- We have tons of data, what can we do with it?
- How can we make fact based decisions?



Copyright
United States Copyright Office

WHAT BUSINESS INTELLIGENCE DOES

- **What questions do you want answered?** – reports/visualization/analytics
- **Why is it happening the way it is happening?** – drilling down the information, looking at road blocks, holds ups.
- **How to address the problem?** – identifying the problem areas. For example; improving performance by reducing cycle time, workload distribution for complex tasks, communication/correspondence issues, technology restrictions, and more.



Copyright
United States Copyright Office

BUSINESS INTELLIGENCE AT THE OFFICE

The Office has a need for a copyright enterprise-scale Business Intelligence (BI) and analytics capability to enable data-driven and fact-based decisions to support the ongoing modernization activities as well as delivering reporting services of the events, occurrences, and activities that can help improve copyright business process and customer satisfaction.

- Implement Business Intelligence Tool in the Copyright Office
- Create BI capabilities for analytics, visualizations, ad hoc reporting and dashboards.
- Train the trainers.

Disclaimer: numbers and data are manufactured for visualization purposes only and do not reflect actual data.

Copyright United States Copyright Office

Registration

Pick a Date Range

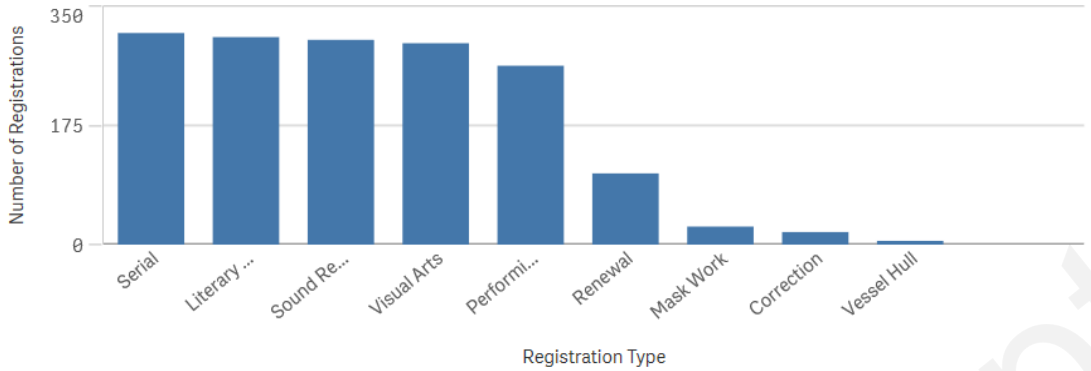
Select date range

Number of Copyrights Registered

1.63k

Registrations by Work Type

We see that serials and renewals are the office's most popular registration types.



Has the fee been received?	#
No	59
Yes	1574
Totals	**1633**

Has the deposit been recieved?	#
No	62
Yes	1571
Total	**1633**

Registrations Over Time

The number of registrations throughout the year stay constant, indicating no cyclical business patterns. There is a steep decrease in December that should be explored.

Date.autoCalendar.Month	Count([Fact.Registration Number])	Linear Trend Line
Totals	**1633**	-
Jan	147	-
Feb	70	-

Concept 2/2020

Copyright United States Copyright Office

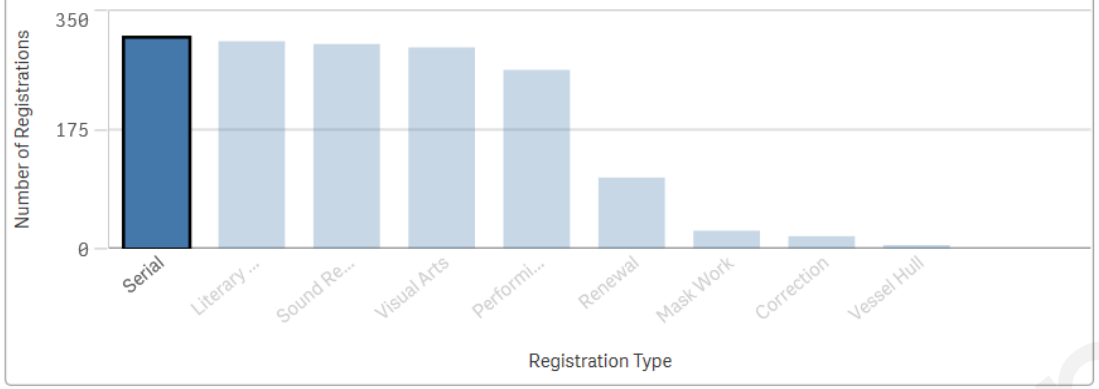
Disclaimer: numbers and data are manufactured for visualization purposes only and do not reflect actual data.

Registration

Pick a Date Range

Registrations by Work Type

We see that serials and renewals are the office's most popular registration types.



Number of Copyrights Registered

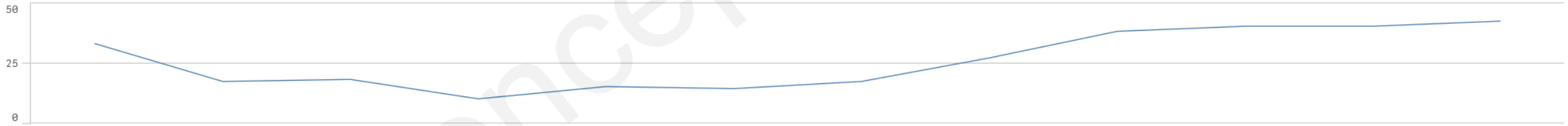
311

Has the fee been received?	#
No	9
Yes	302
Totals	**311**

Has the deposit been recieved?	#
No	13
Yes	298
Total	**311**

Registrations Over Time

The number of registrations throughout the year stay constant, indicating no cyclical business patterns. There is a steep decrease in December that should be explored.



Date.autoCalendar.Month	Count([Fact.Registration Number])	Linear Trend Line
Totals	**311**	-
Jan	33	-
Feb	17	-

Concept 2/2020

Copyright United States Copyright Office

Disclaimer: numbers and data are manufactured for visualization purposes only and do not reflect actual data.

Copyright United States Copyright Office

Registration

Pick a Date Range

Select date range

Number of Copyrights Registered

59

Registrations by Work Type

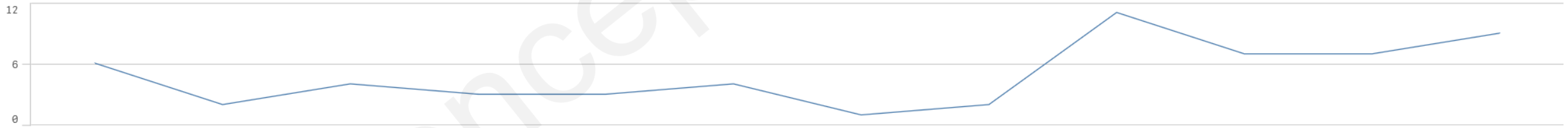
We see that serials and renewals are the office's most popular registration types.

Has the fee been received?	#
No	59
Yes	1574
Totals	**1633**

Has the deposit been recieved?	#
No	8
Yes	51
Total	**59**

Registrations Over Time

The number of registrations throughout the year stay constant, indicating no cyclical business patterns. There is a steep decrease in December that should be explored.



Date.autoCalendar.Month	Count([Fact.Registration Number])	Linear Trend Line
Totals	**59**	-
Jan	6	-
Feb	2	-

Concept 2/2020

Copyright United States Copyright Office

Disclaimer: numbers and data are manufactured for visualization purposes only and do not reflect actual data.

Copyright United States Copyright Office

Fees

Pick a Date Range

Select date range

Total Fees Received

$XX,XXX

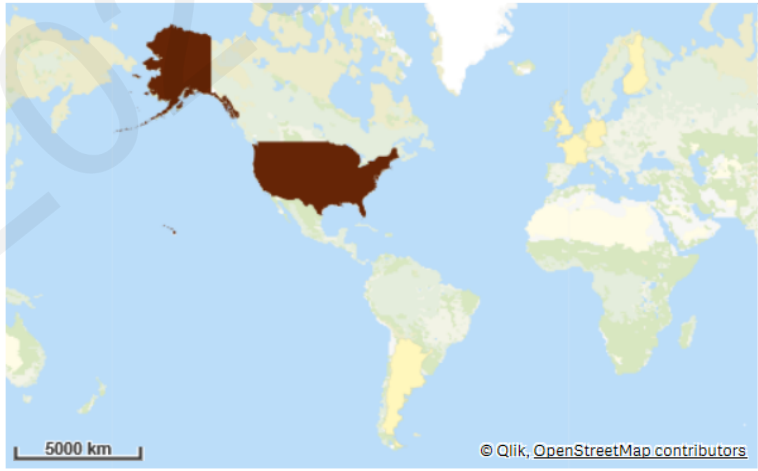
Fees by Category of Work *

Renewals bring in the largest amount of fees, significantly more than the next highest category of work, sound recordings.

** The data set contains negative or zero values that cannot be shown in this chart.*

Where Our Customers Are

Hover over points below to get more details about the fees and customers in that city.

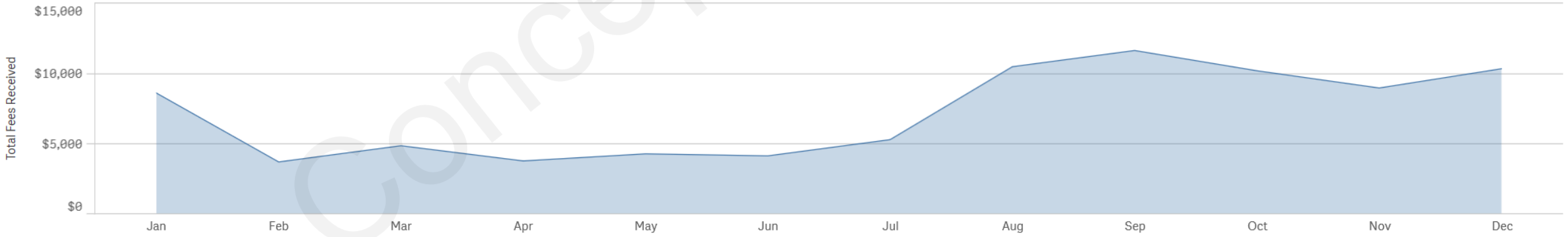


Select one country to see the cities

Select the USA to see Congressional Districts

Fees Received in 2018

There are clear peaks in revenue from fees over the year, which could indicate seasonal or cyclical trends. Historical data should be further explored to confirm.



Concept 1 2020

Copyright United States Copyright Office

Disclaimer: numbers and data are manufactured for visualization purposes only and do not reflect actual data.

Copyright United States Copyright Office

Fees

Pick a Date Range

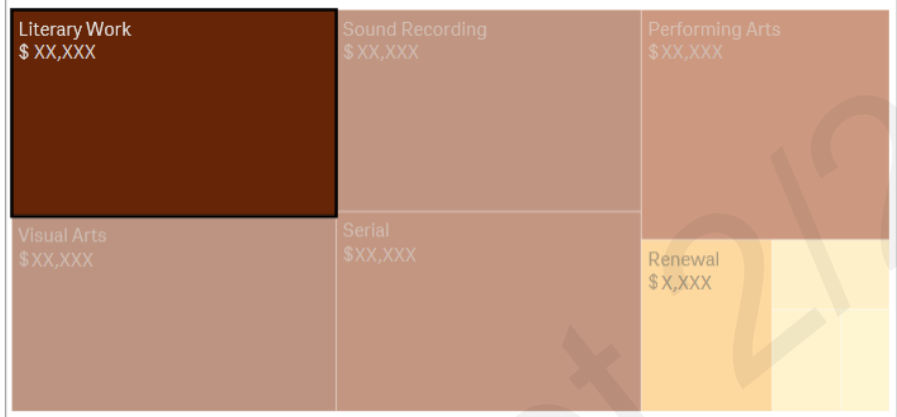
Select date range

Total Fees Received

$XX,XXX

Fees by Category of Work *

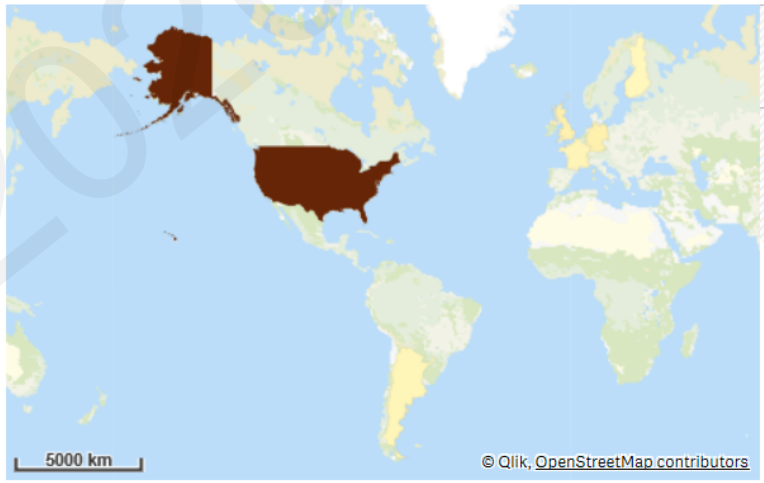
Renewals bring in the largest amount of fees, significantly more than the next highest category of work, sound recordings.



* The data set contains negative or zero values that cannot be shown in this chart.

Where Our Customers Are

Hover over points below to get more details about the fees and customers in that city.

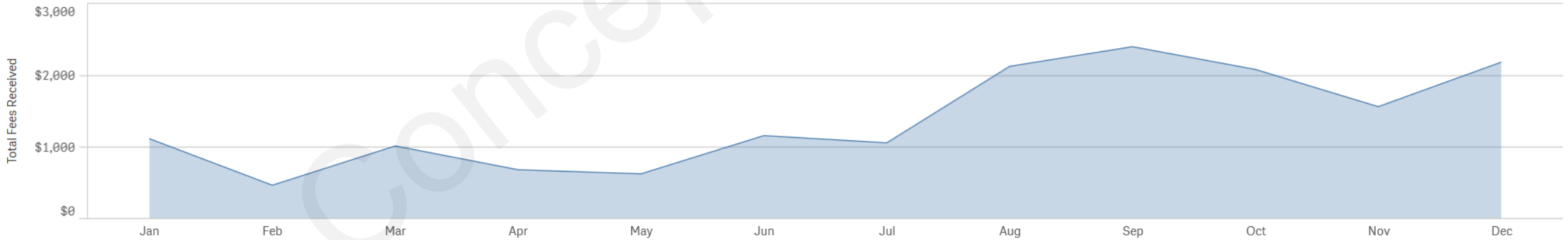


Select one country to see the cities

Select the USA to see Congressional Districts

Fees Received in 2018

There are clear peaks in revenue from fees over the year, which could indicate seasonal or cyclical trends. Historical data should be further explored to confirm.



Concept 2020

Copyright United States Copyright Office

Disclaimer: numbers and data are manufactured for visualization purposes only and do not reflect actual data.

Copyright United States Copyright Office

Fees

Pick a Date Range

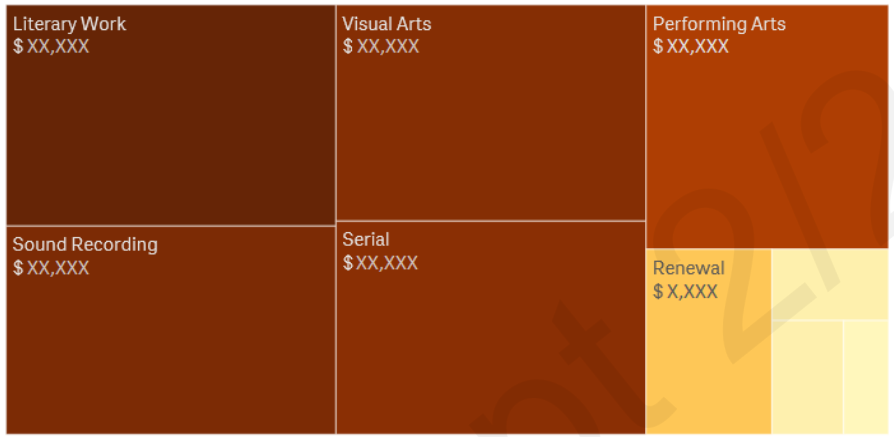
Select date range

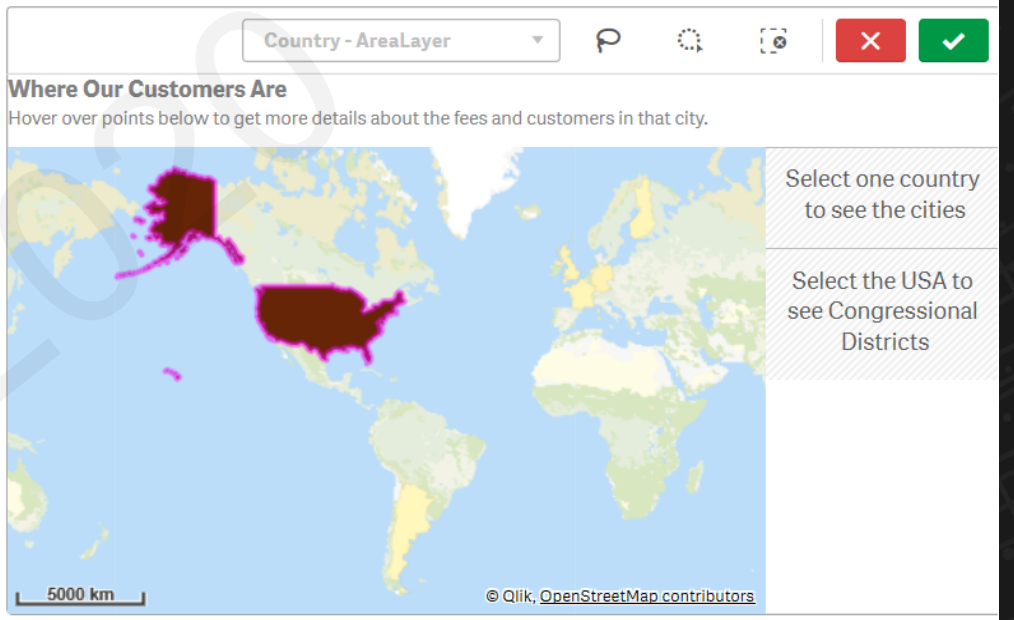
Total Fees Received

$XX,XXX

Fees by Category of Work

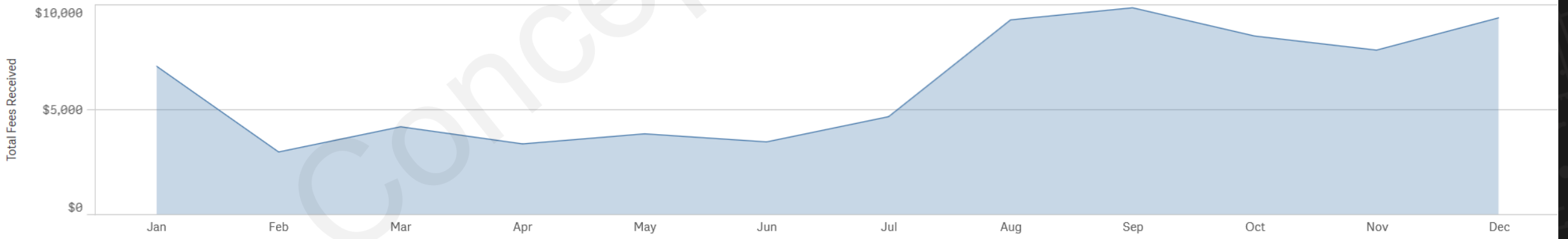
Renewals bring in the largest amount of fees, significantly more than the next highest category of work, sound recordings.





Fees Received in 2018

There are clear peaks in revenue from fees over the year, which could indicate seasonal or cyclical trends. Historical data should be further explored to confirm.



Concept 2020

Copyright United States Copyright Office

Disclaimer: numbers and data are manufactured for visualization purposes only and do not reflect actual data.

Copyright United States Copyright Office

Employees

Pick a Date Range

Select date range

Employee Name

Select an employee by name to see performance metrics.

Employee Name

- Mina Harker
- Lucy Westenra
- Abraham Van Helsing

Team

Select below to see employee metrics aggregated by team.

- A
- B
- C

Employee ID

Select an employee by login id.

- mhark
- lwest
- helsing

Registrations Handled

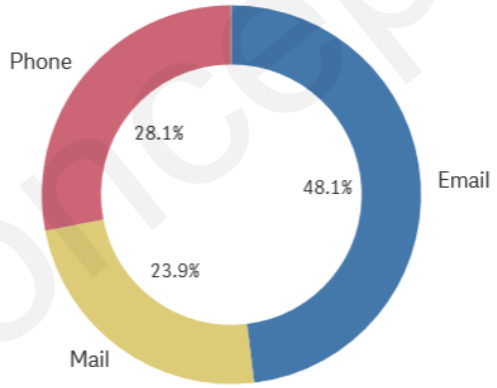
The number below represents how many registrations a selected employee or team processed in 2018-2019. Over this time period, 1,633 registrations were processed.

Registrations Handled

1.63k 112 Incomplete Registrations

Correspondence Method

Tracking phone and mail correspondence is a manual process,

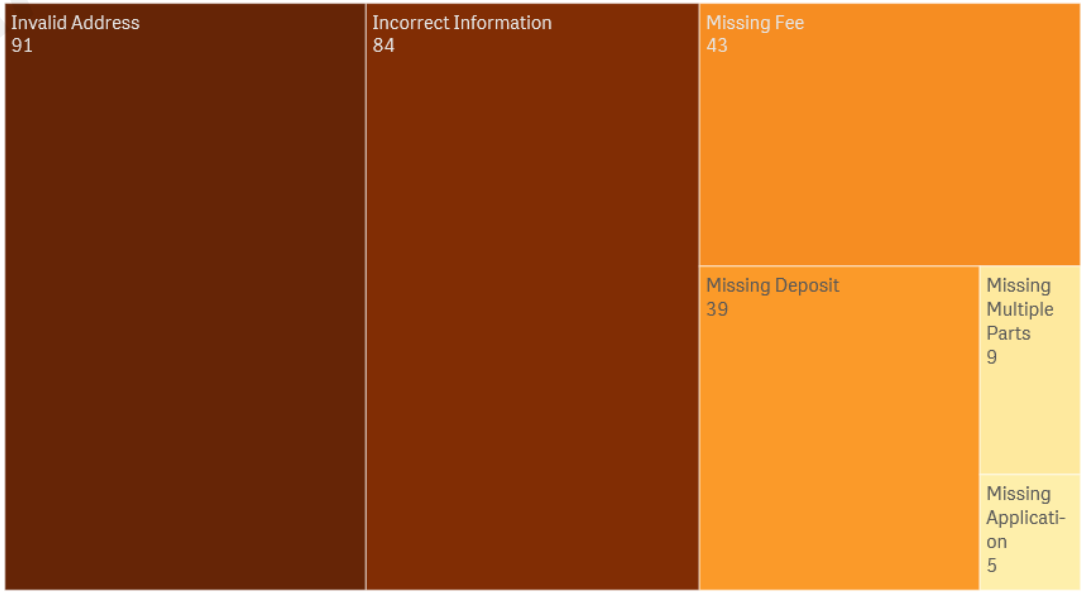


Correspondence Pending

70

Purpose of Correspondence *

Analyzing the purpose of correspondence may shed light on areas of the application process that could be improved to prevent future correspondence.



** The data set contains negative or zero values that cannot be shown in this chart.*

Concept 2/2020

Copyright United States Copyright Office

Disclaimer: numbers and data are manufactured for visualization purposes only and do not reflect actual data.

Copyright United States Copyright Office

Employees

Pick a Date Range

Select date range

Employee Name

Select an employee by name to see performance metrics.

Employee Name

- Mina Harker
- Lucy Westenra
- Abraham Van Helsing

Team

Select below to see employee metrics aggregated by team.

- A
- B
- C

Employee ID

Select an employee by login id.

- mhark
- lwest
- helsing

Registrations Handled

The number below represents how many registrations a selected employee or team processed in 2018-2019. Over this time period, 1,633 registrations were processed.

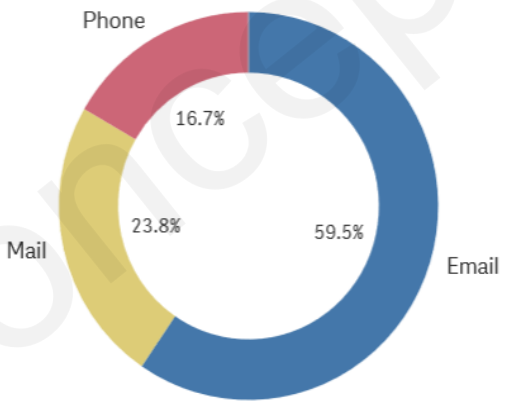
Registrations Handled

35 20

Incomplete Registrations

Correspondence Method

Tracking phone and mail correspondence is a manual process.

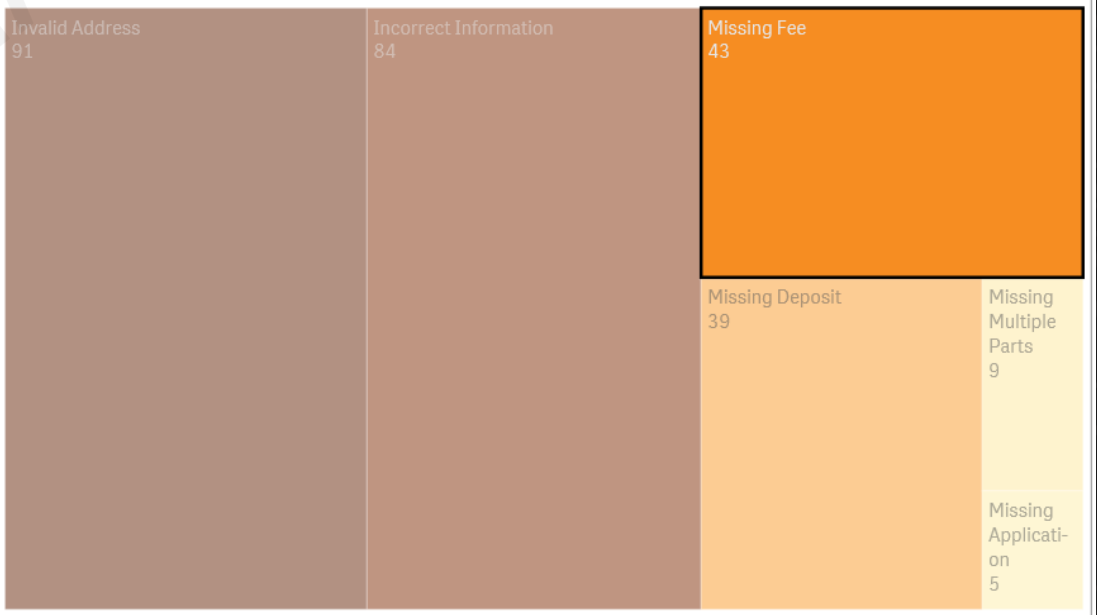


Correspondence Pending

27

Purpose of Correspondence *

Analyzing the purpose of correspondence may shed light on areas of the application process that could be improved to prevent future correspondence.



** The data set contains negative or zero values that cannot be shown in this chart.*

Concept 2020

Disclaimer: numbers and data are manufactured for visualization purposes only and do not reflect actual data.

Copyright United States Copyright Office

Employees

Pick a Date Range

Select date range

Employee Name

Select an employee by name to see performance metrics.

Employee Name

- Mina Harker
- Lucy Westenra
- Abraham Van Helsing

Team

Select below to see employee metrics aggregated by team.

- A
- B
- C

Employee ID

Select an employee by login id.

- mhark
- lwest
- helsing

Registrations Handled

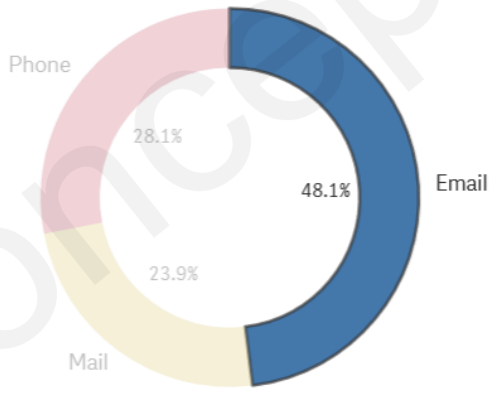
The number below represents how many registrations a selected employee or team processed in 2018-2019. Over this time period, 1,633 registrations were processed.

Registrations Handled

277 36 Incomplete Registrations

Correspondence Method

Tracking phone and mail correspondence is a manual process.

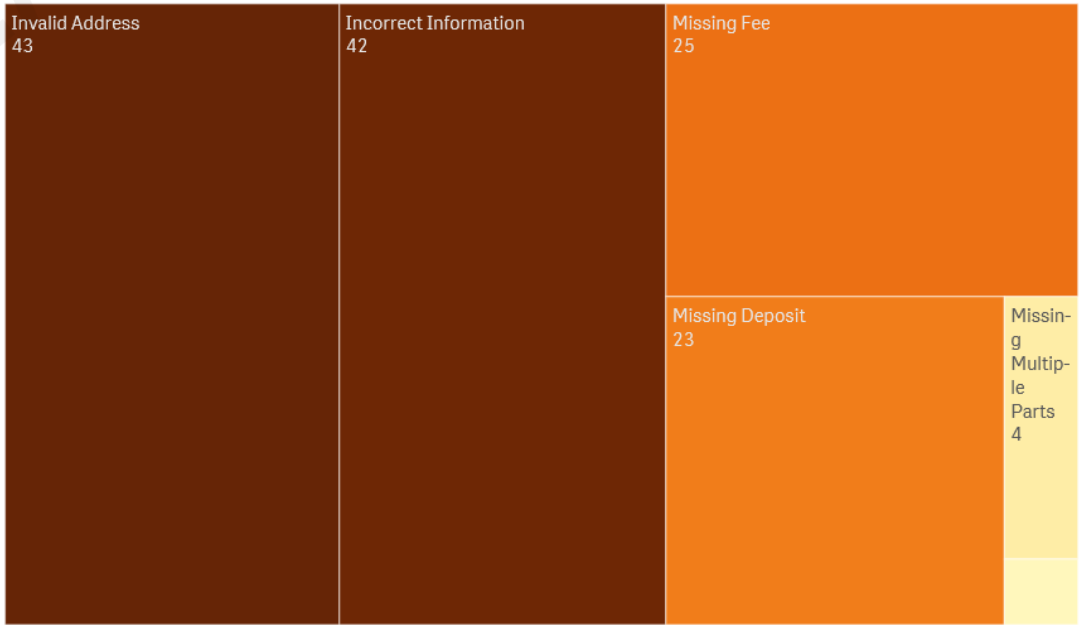


Correspondence Pending

45

Purpose of Correspondence

Analyzing the purpose of correspondence may shed light on areas of the application process that could be improved to prevent future correspondence.



Concept 2/2020

Copyright United States Copyright Office

Disclaimer: numbers and data are manufactured for visualization purposes only and do not reflect actual data.

Copyright United States Copyright Office

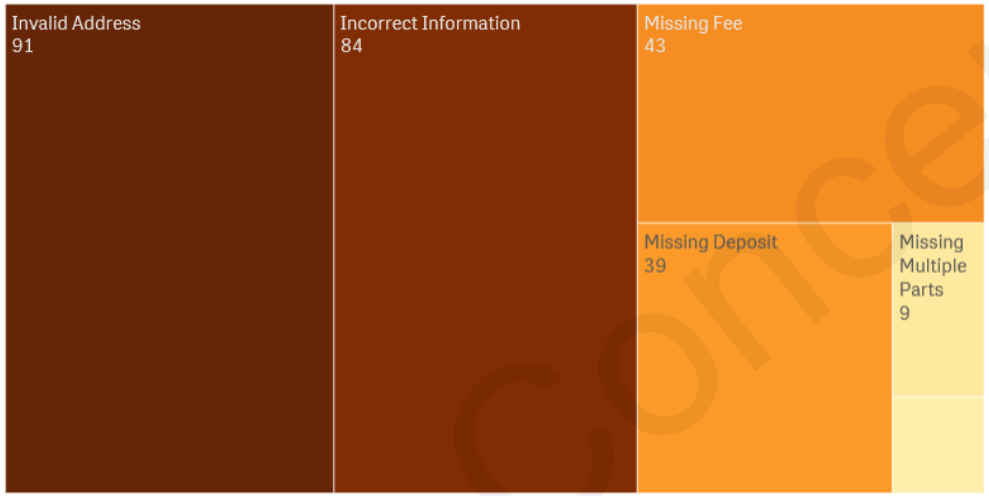
Correspondence

Average Days to Resolve

50.79

Correspondence Purpose *

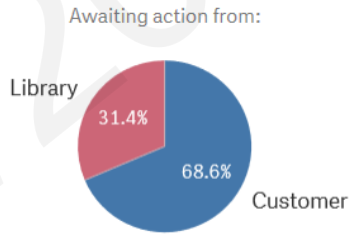
It is obvious that invalid addresses is what causes the most correspondence. This could mean that more data validation is needed prior to submitting registration applications. Select a category below to see more information.



** The data set contains negative or zero values that cannot be shown in this chart.*

Awaiting Action

This chart shows what proportion of open correspondence are awaiting library action and what proportion is awaiting customer response.



Correspondence Method

Email

Mail

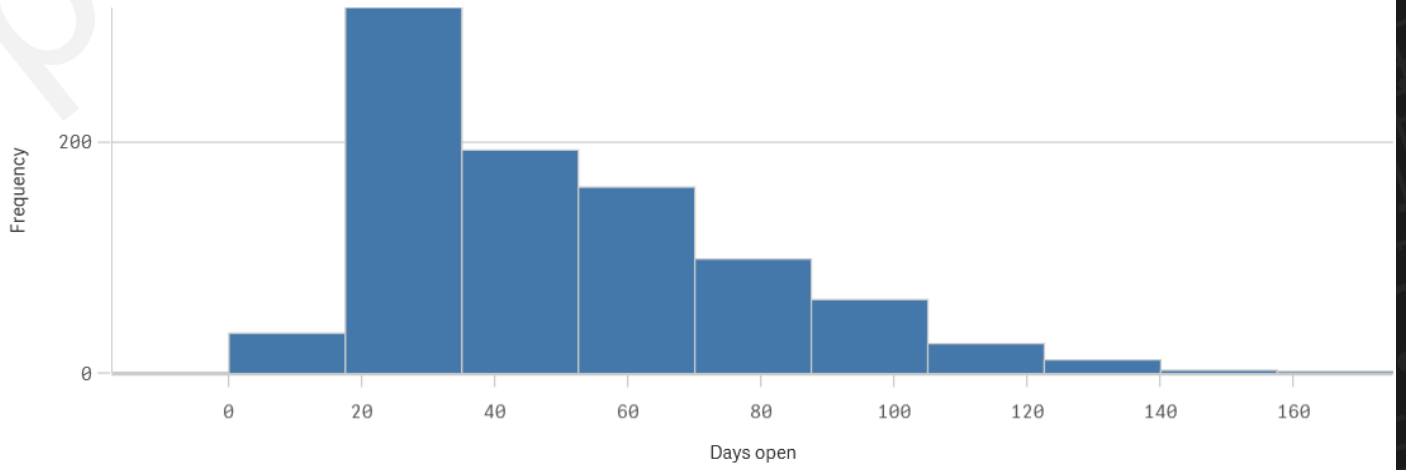
Responding Employee

Mina Harker

Lucy Westenra

Distribution of Days Open

The histogram below displays the average days that a correspondence is open and the distribution of days open.



Concept 2/2020

Disclaimer: numbers and data are manufactured for visualization purposes only and do not reflect actual data.

Copyright United States Copyright Office

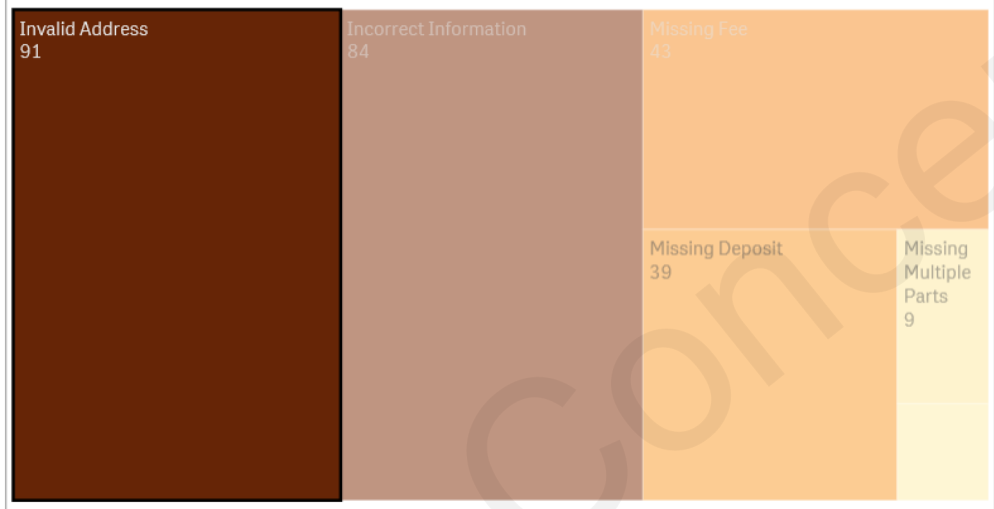
Correspondence

Average Days to Resolve

52.8

Correspondence Purpose *

It is obvious that invalid addresses is what causes the most correspondence. This could mean that more data validation is needed prior to submitting registration applications. Select a category below to see more information.



** The data set contains negative or zero values that cannot be shown in this chart.*

Awaiting Action

This chart shows what proportion of open correspondence are awaiting library action and what proportion is awaiting customer response.

The chart is not displayed because it contains only negative or zero values.

Correspondence Method

Email

Mail

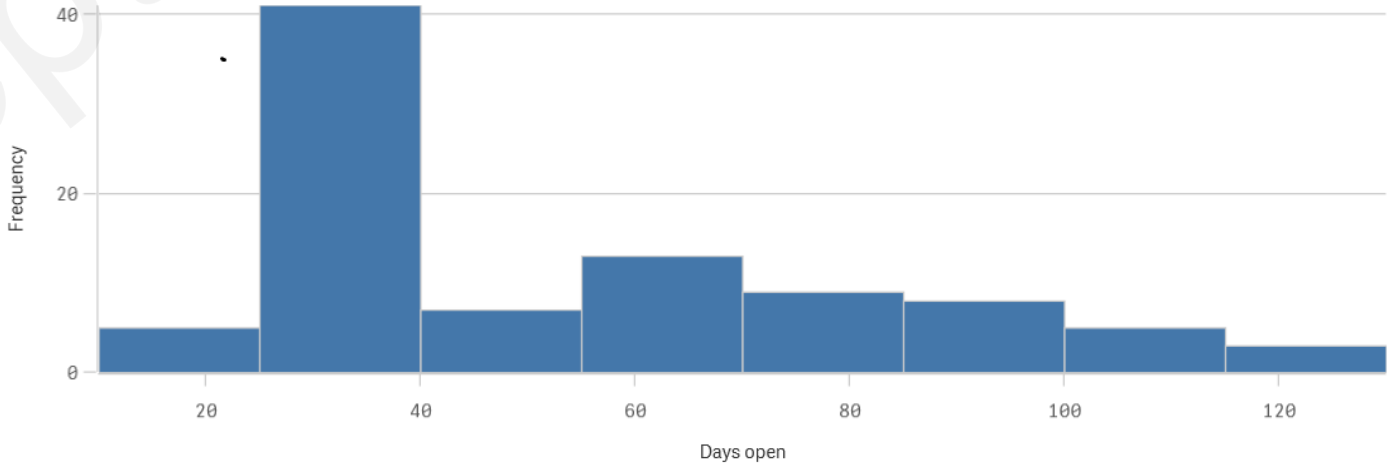
Responding Employee

Mina Harker

Lucy Westenra

Distribution of Days Open

The histogram below displays the average days that a correspondence is open and the distribution of days open.



Concept 2/2020

Disclaimer: numbers and data are manufactured for visualization purposes only and do not reflect actual data.

Copyright United States Copyright Office

Correspondence

Average Days to Resolve

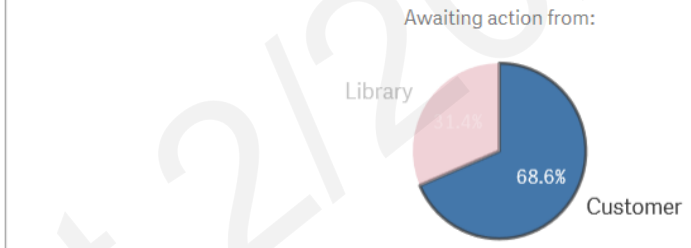
44.73

Correspondence Purpose

It is obvious that invalid addresses is what causes the most correspondence. This could mean that more data validation is needed prior to submitting registration applications. Select a category below to see more information.

Awaiting Action

This chart shows what proportion of open correspondence are awaiting library action and what proportion is awaiting customer response.



Correspondence Method

Email

Mail

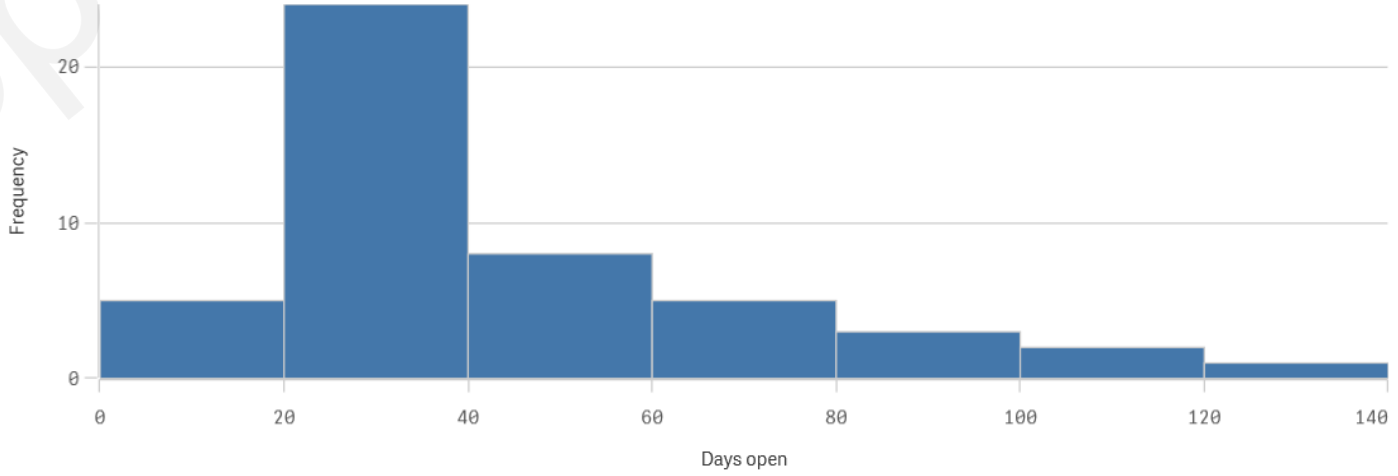
Responding Employee

Mina Harker

Lucy Westenra

Distribution of Days Open

The histogram below displays the average days that a correspondence is open and the distribution of days open.



Concept 2/2020

BENEFITS OF USING BUSINESS INTELLIGENCE

- **Valuable business insights** – highlights what is working and what needs improvement.
- **Fast and accurate reporting** – business can act quickly based on real time, relevant information presented in an easy to read format.
- **Increased revenue** – important goal for decision making, BI helps ask better questions about why things happened by comparing information.
- **Customers are valued partners** – listening to the customer helps understand customer behavior and inform recentness, frequency, and correspondence methods to better serve their needs.

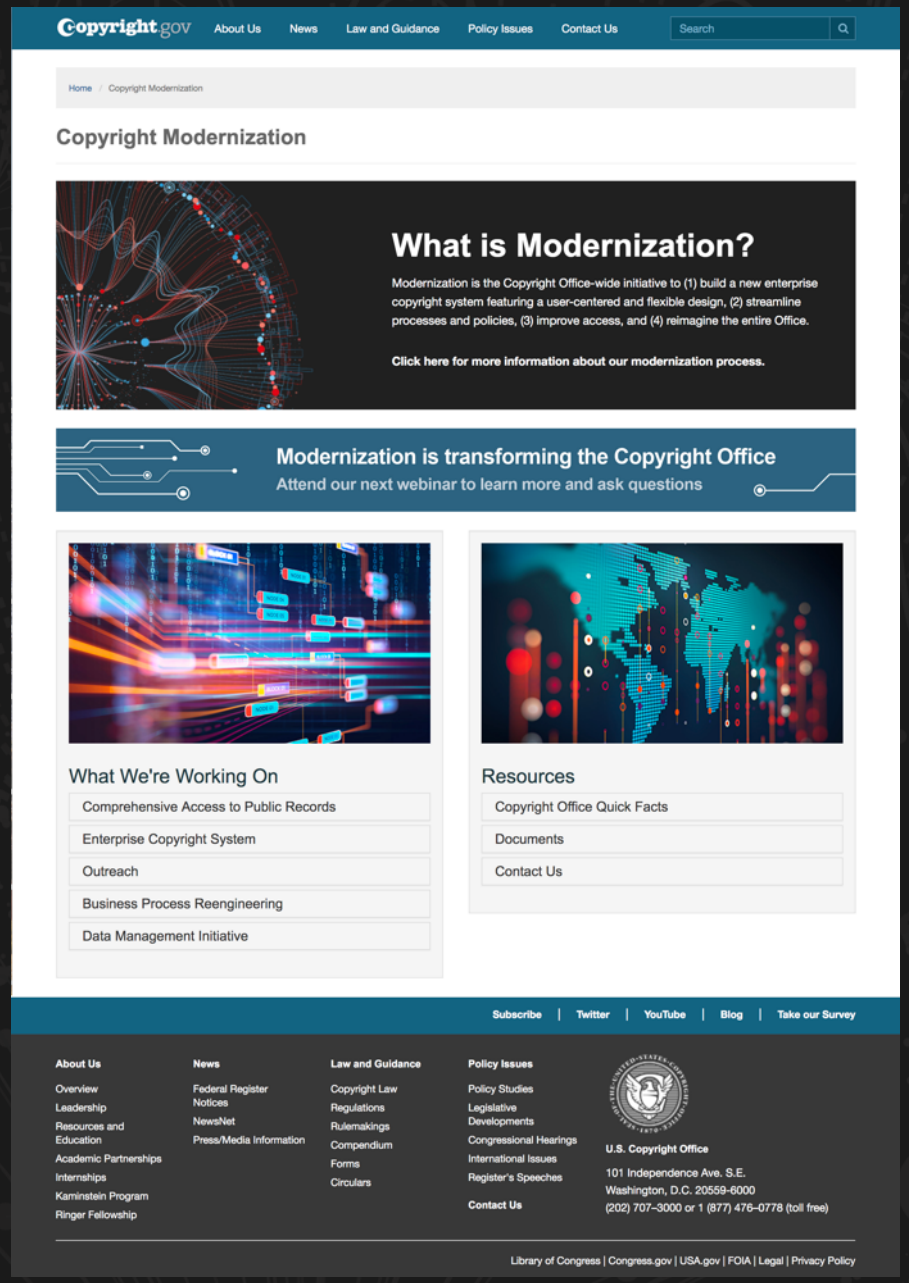
Copyright
United States Copyright Office

Questions?

To submit a question, use the Q&A dialog box in the lower right corner.

Please note: we may not be able to answer all questions received in the allotted time. Thank you.

Copyright
United States Copyright Office



Learn More

For More Information:

copyright.gov/copyright-modernization

Send Questions To:

askcmo@copyright.gov

Copyright
United States Copyright Office