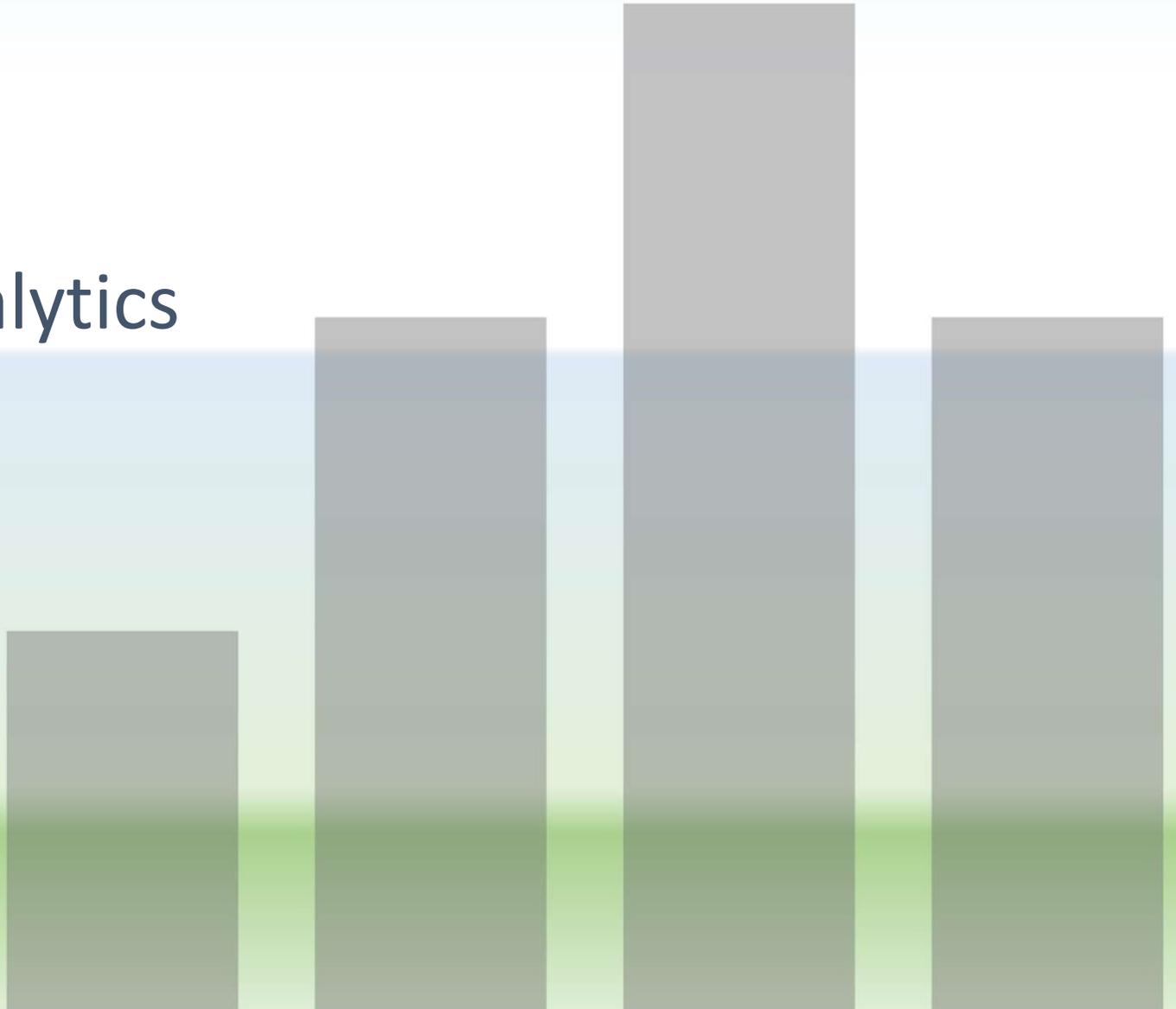


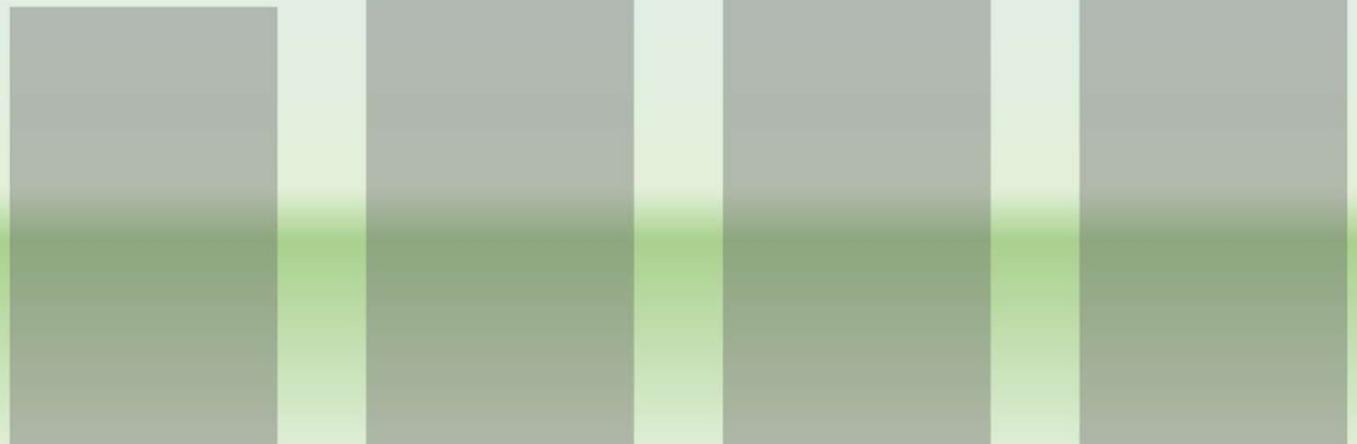


Time & Motion Analytics



Contents

1. Time and Motion Overview
2. Task Analysis
3. Performance Analysis
4. Frequently asked questions



Time & Motion Overview:

The following slides show the overview produced by Telos Analytics after conducting a Time & Motion study. All data in this example is illustrative and not based on real individuals or tasks.

Key Metrics including:

1. Number of tasks recorded
2. Number of Individuals
3. Number of Instances
4. Min/Max/Avg. Steps
5. Min/Max/Avg. Time

As users interact these values will change to reflect the selection made

A Scatter Graph shows all tasks plotted by average time versus average steps. This allows the user to see which tasks take the most time and effort to complete. The size of the dots indicate how many instances have been recorded for each task. The bigger the dot the more instances have been recorded and the greater confidence we can have in the average.

The Scatter Graph has two additional levels of drill down which will be shown in the following slides

Time and Motion Overview

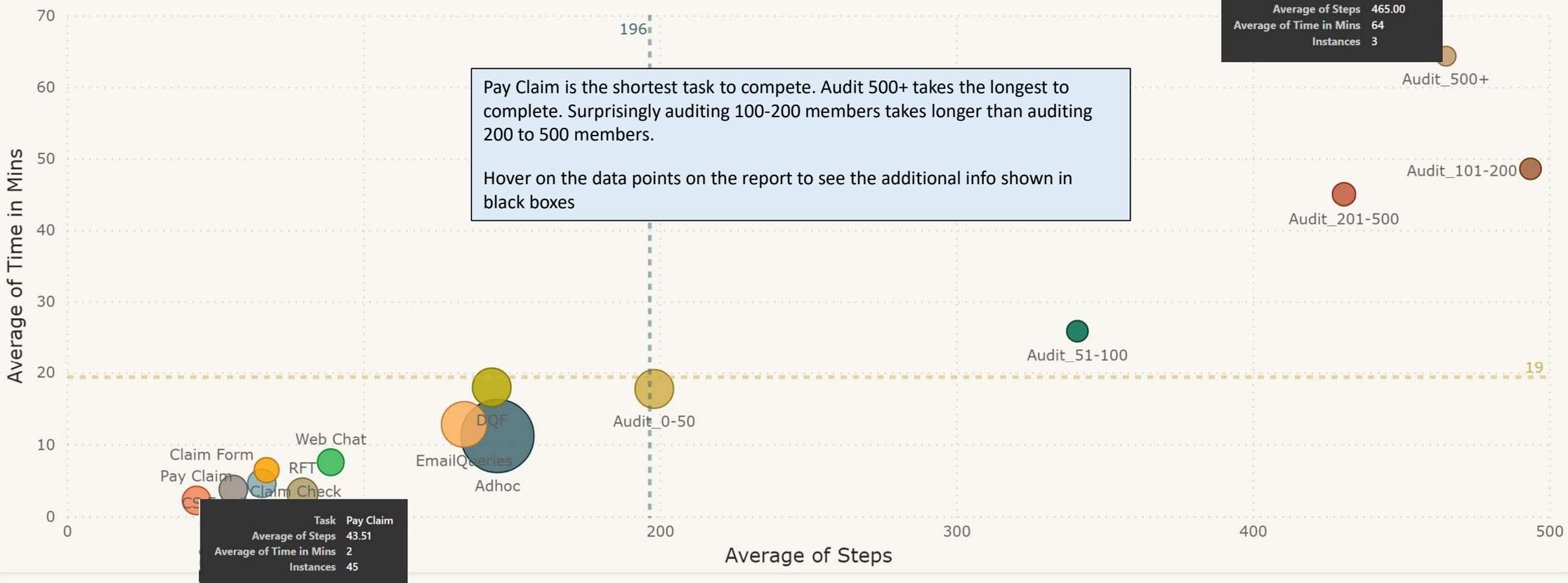
The original report with no selections made. Note 14 tasks are mapped and 21 individuals have recorded data against these tasks.

The Scatter Graph below is divided into four quadrants using average lines.

Key Metrics

14	21	1145
Tasks	Individuals	Instances
11	698	140
MinSteps	MaxSteps	AverageSteps
00:00:35	02:13:14	00:12:05
MinTime	MaxTime	AverageTime

All Tasks - Average Time V Steps



Time and Motion Overview

Report at first level of drill down. The task "Adhoc" has been selected. We can see that 15 individuals have completed this task. The dots are labelled with task name and then the initials of the individuals.

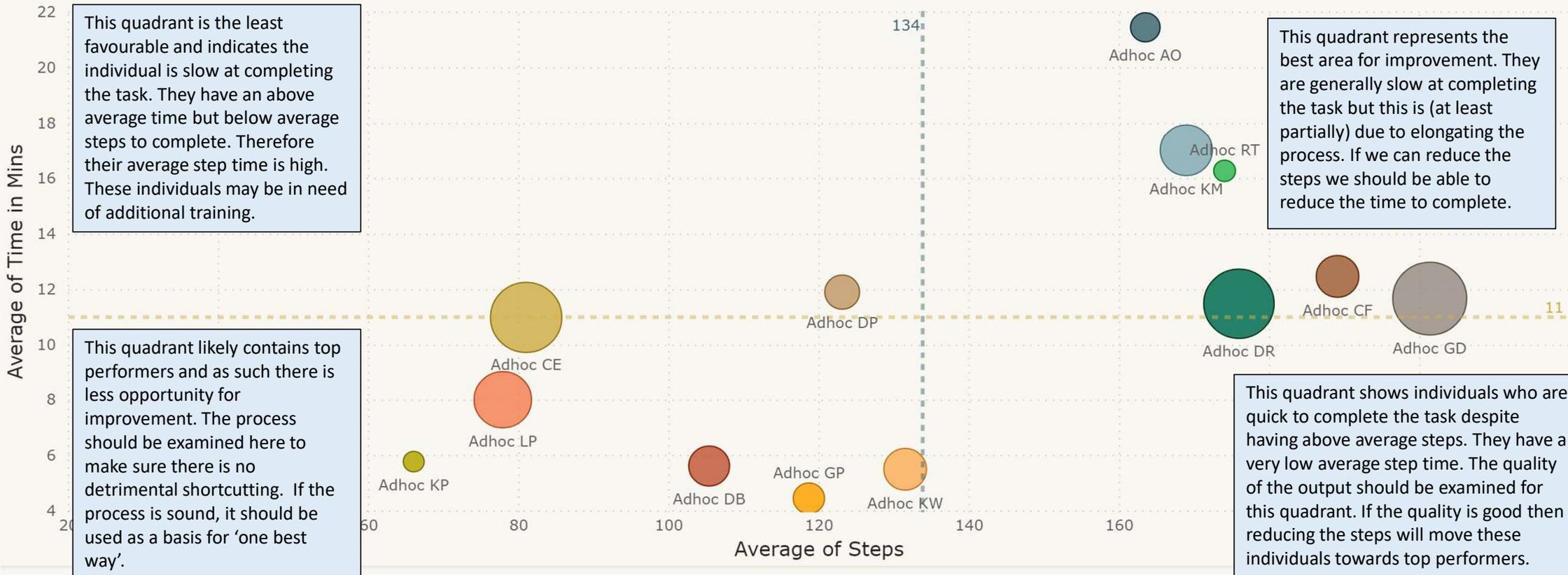
Key Metrics

1	15	475
Tasks	Individuals	Instances
11	698	145
MinSteps	MaxSteps	AverageSteps
00:02:09	00:48:59	00:10:51
MinTime	MaxTime	AverageTime

To drill down make sure this symbol is selected and click on a data point.



Adhoc - Average Time V Steps



This quadrant is the least favourable and indicates the individual is slow at completing the task. They have an above average time but below average steps to complete. Therefore their average step time is high. These individuals may be in need of additional training.

This quadrant likely contains top performers and as such there is less opportunity for improvement. The process should be examined here to make sure there is no detrimental shortcutting. If the process is sound, it should be used as a basis for 'one best way'.

This quadrant represents the best area for improvement. They are generally slow at completing the task but this is (at least partially) due to elongating the process. If we can reduce the steps we should be able to reduce the time to complete.

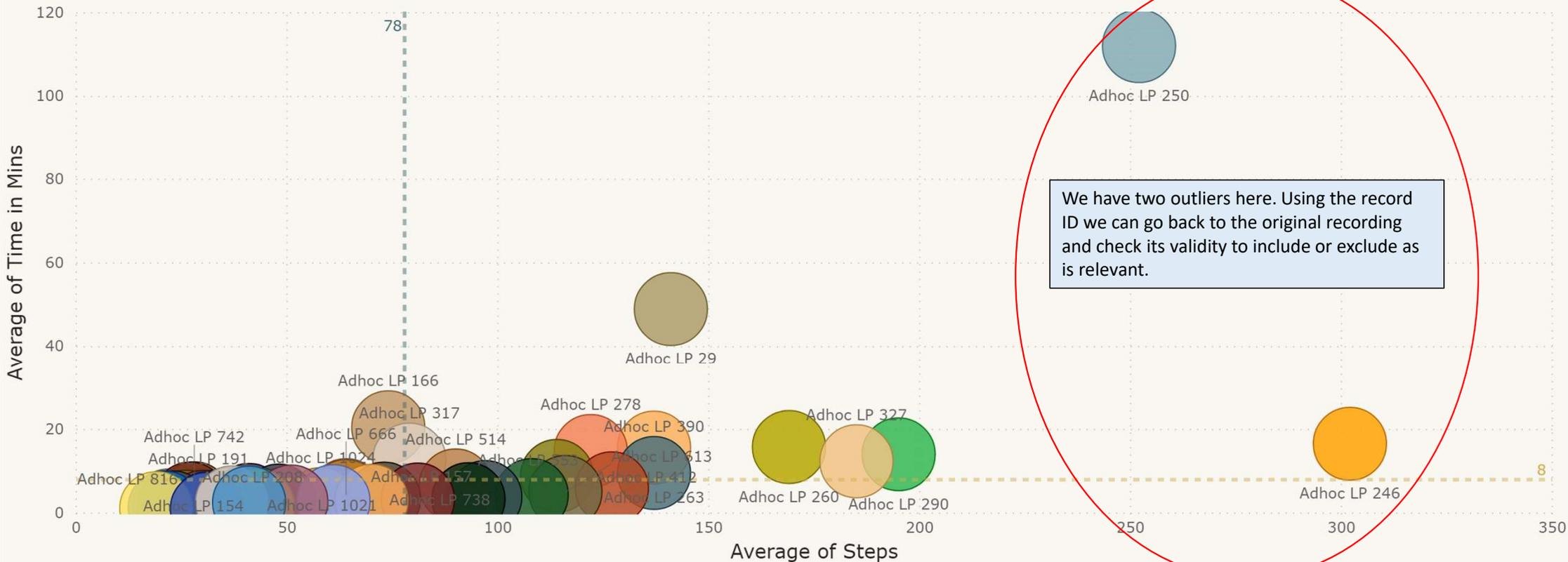
This quadrant shows individuals who are quick to complete the task despite having above average steps. They have a very low average step time. The quality of the output should be examined for this quadrant. If the quality is good then reducing the steps will move these individuals towards top performers.

Time and Motion Overview

Report at second level of drill down. The task "Adhoc" was selected then the ID "LP". What we are seeing is the 51 instances that LP recorded for the task "Adhoc". We can see the Key Metrics now have changed to reflect this. The dots are labelled with the task name, initials of the individual and the unique record id.

1	1	51
Tasks	Individuals	Instances
19	302	78
MinSteps	MaxSteps	AverageSteps
00:02:12	00:48:59	00:07:59
MinTime	MaxTime	AverageTime

Adhoc - Average Time V Steps



We have two outliers here. Using the record ID we can go back to the original recording and check its validity to include or exclude as is relevant.



Task Analysis:

The following slides shows the Task Analysis produced when Telos Analytics conducts a Time & Motion study. All data in this example is illustrative and not based on real individuals or tasks.

Report includes:

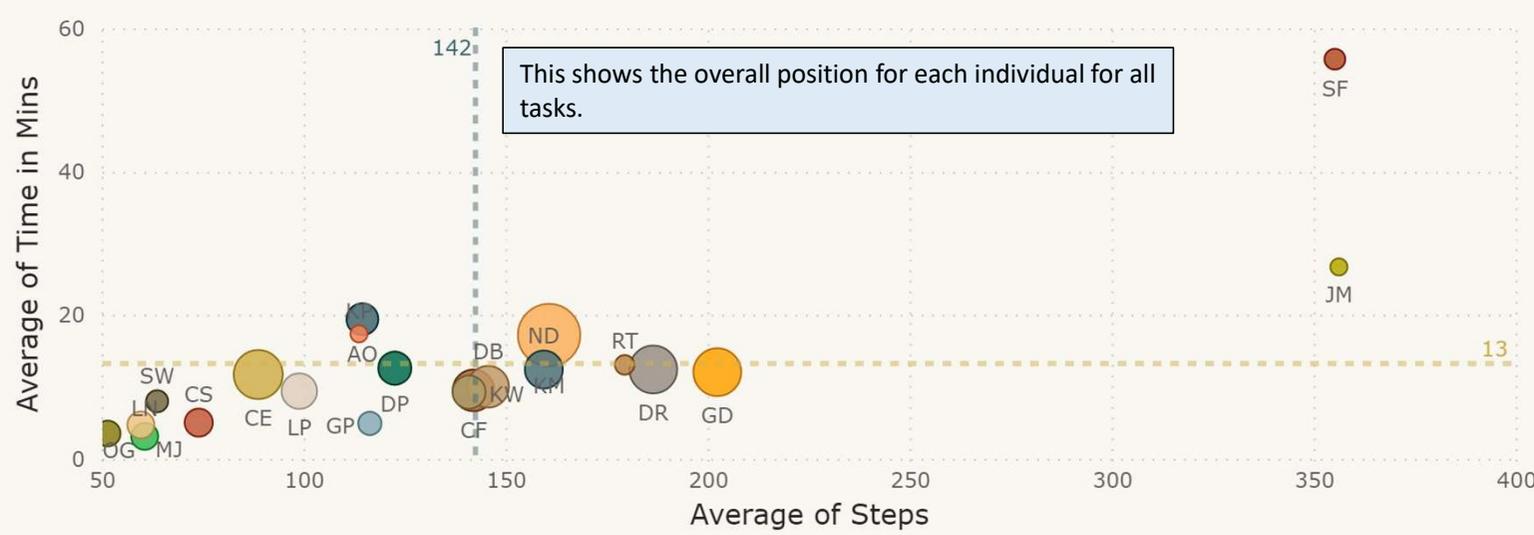
1. Key Metrics to match overview
2. Task Slicer – Showing number of individuals and instances complete
3. Scatter Graph showing individuals plotted by average time versus average steps
4. Line and clustered column chart showing how individuals Rank on tasks and how many tasks they have completed

Key Metrics

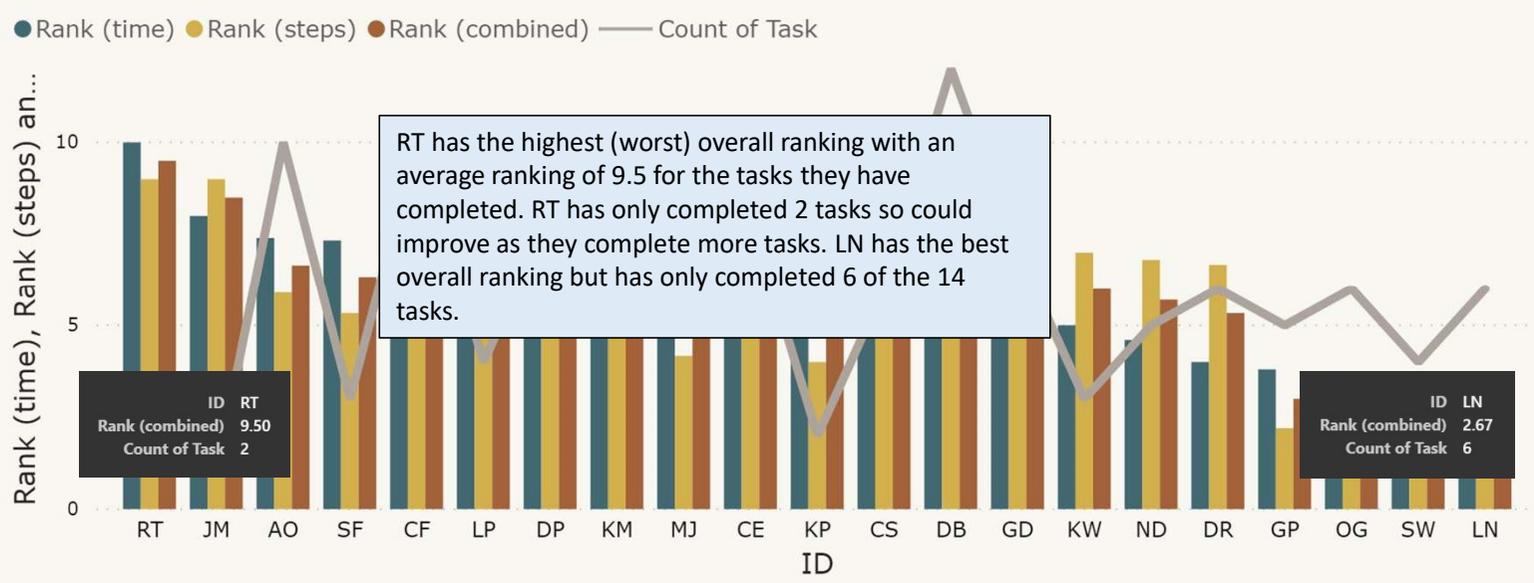
14	21	1145
Tasks	Individuals	Instances
11	698	140
MinSteps	MaxSteps	AverageSteps
00:00:35	02:13:14	00:12:05
MinTime	MaxTime	AverageTime

Task	Instances	Count of ID
Adhoc	475	15
Audit_0-50	108	13
Audit_101-200	10	5
Audit_201-500	17	8
Audit_500+	3	2
Audit_51-100	9	4
Claim Check	45	9
Claim Form	24	9
CS Email	45	9
DQF	107	10
EmailQueries	161	12
Pay Claim	45	9
RFT	60	9
Web Chat	36	7
Total	1145	21

Average time/steps for individuals to complete tasks



Average Rank by ID



The original report with no selections made.

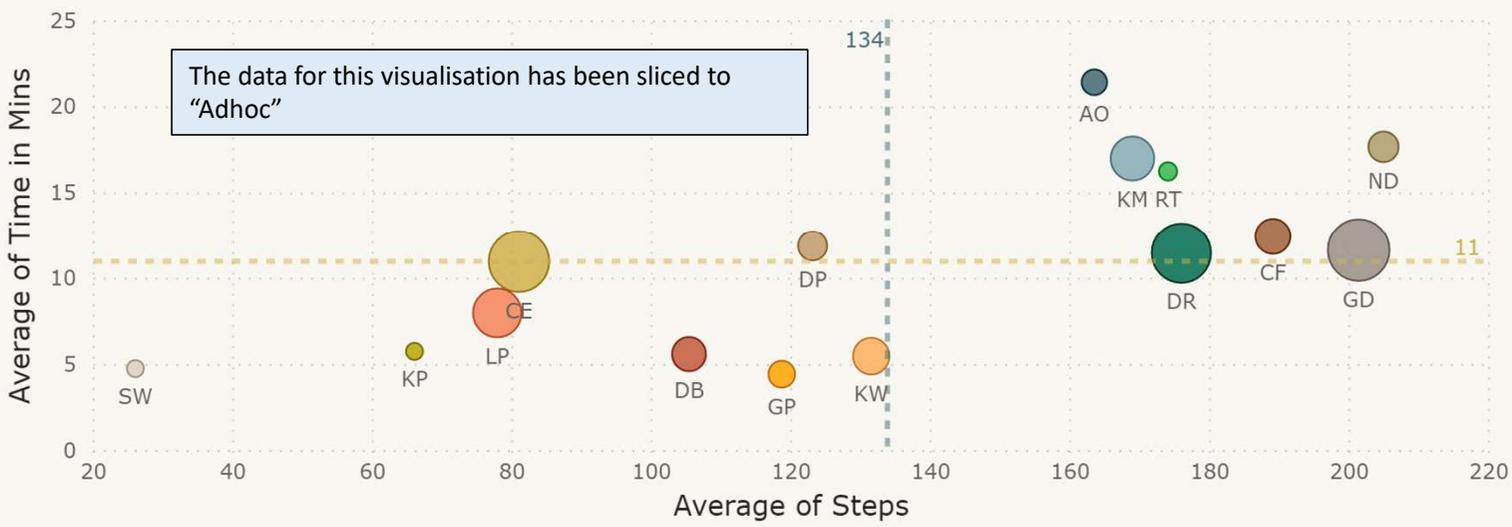
Key Metrics

1	15	475
Tasks	Individuals	Instances
11	698	145
MinSteps	MaxSteps	AverageSteps
00:02:09	00:48:59	00:10:51
MinTime	MaxTime	AverageTime

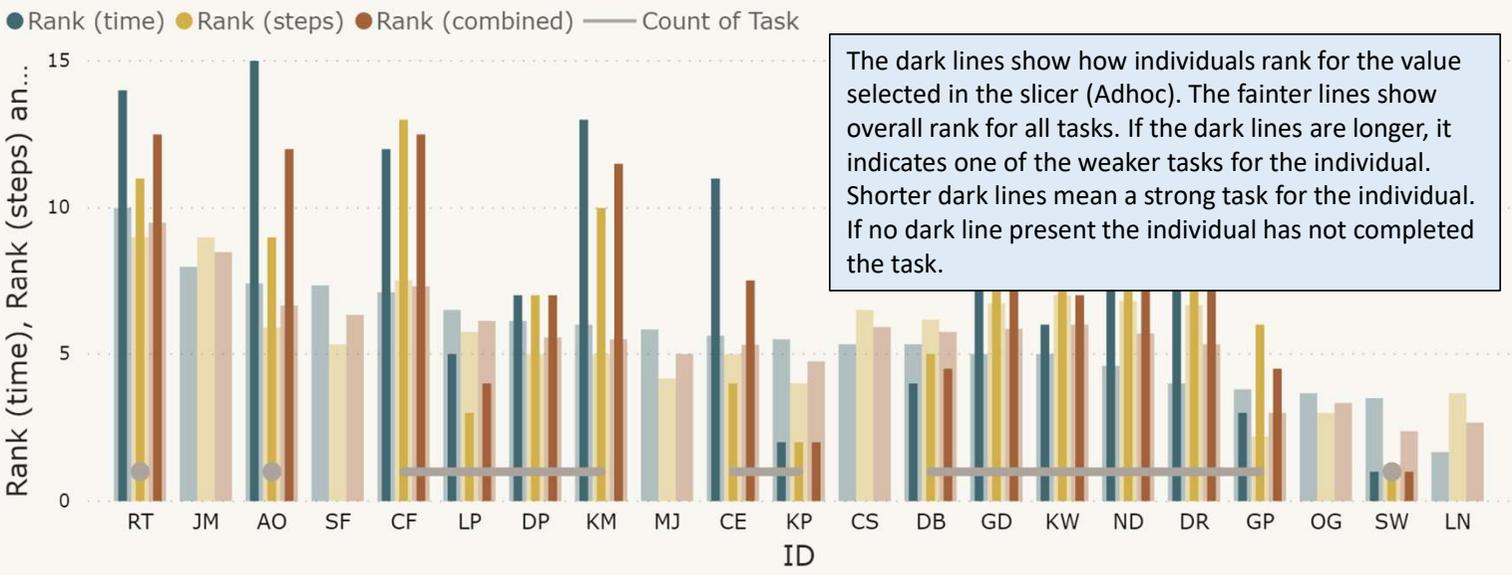
Slicer has been used to select "Adhoc"

Task	Instances	Count of ID
Adhoc	475	15
Audit_0-50	108	13
Audit_101-200	10	5
Audit_201-500	17	8
Audit_500+	3	2
Audit_51-100	9	4
Claim Check	45	9
Claim Form	24	9
CS Email	45	9
DQF	107	10
EmailQueries	161	12
Pay Claim	45	9
RFT	60	9
Web Chat	36	7
Total	1145	21

Average time/steps for individuals to complete Adhoc



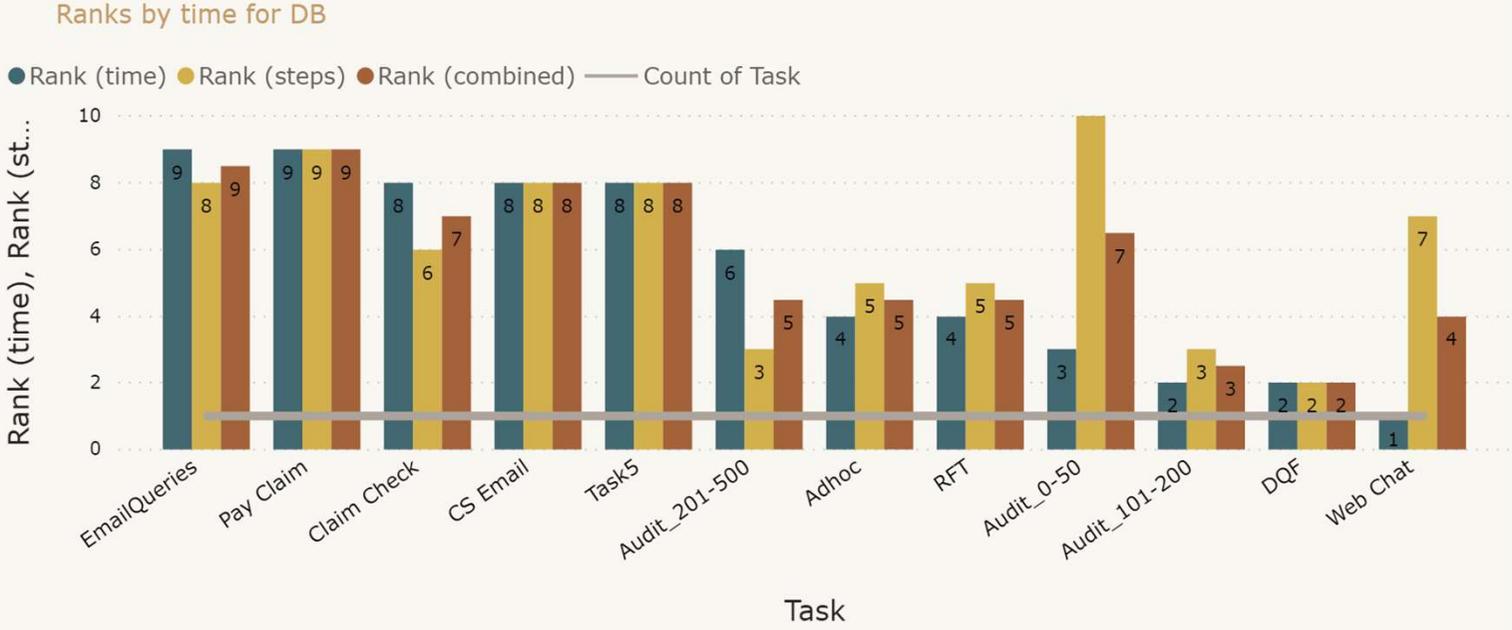
Average Rank by ID



Key Metrics

11	21	1109
Tasks	Individuals	Instances
11	698	140
MinSteps	MaxSteps	AverageSteps
00:00:35	02:13:14	00:12:03
MinTime	MaxTime	AverageTime

Task	Instances	Count of ID
Adhoc	475	15
Audit_0-50	108	13
Audit_101-200	10	5
Audit_201-500	17	8
Claim Check	45	9
CS Email	45	9
DQF	107	10
EmailQueries	161	12
Pay Claim	45	9
RFT	60	9
Web Chat	36	7
Total	1109	21



The bottom visualisation has been drilled on the ID "DB". We see their ranks for all the tasks they have completed. The rank for "Web Chat" is interesting, they are ranked number 1 on time i.e. the quickest and number 7 on for steps. We can see from the slicer that only 7 people have completed the "Web Chat" task, which means that DB has the highest number of steps. They are quickest on time but with the most steps. With real data this would certainly be something interesting to investigate.

Performance Analysis:

The following slides shows an Example of Performance Analysis that can be produced by Telos Analytics to augment a Time & Motion study. All data in this example is illustrative and not based on real individuals or tasks.

Report includes:

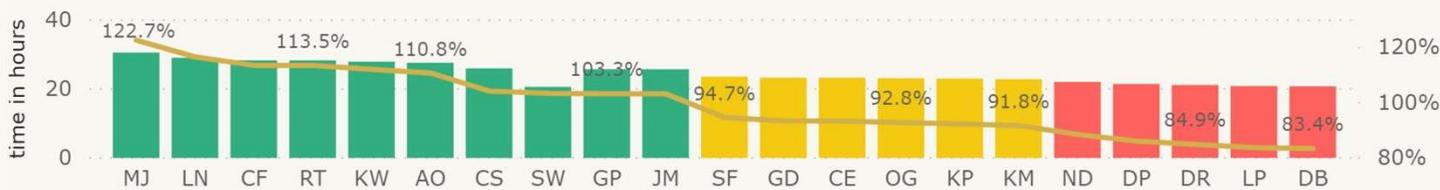
1. Department Performance – Showing completed hours and % to target for all individuals
2. Team and ID Slicer
3. Bar charts showing team totals, team average hours complete, average hours by gender
4. Line and clustered column chart showing hours complete for each task versus hours expected for each task. The line shows percent complete versus expected.
5. Pie Chart showing % of work complete by gender
6. Card showing average hours
7. Card showing % to target

The colours on the charts are dynamic, above target is green, above 90% yellow and below 90% red.

The first slide shows the report unfiltered. Then the second and third slides show the difference between selecting a team on the report and selecting a team by the slicer

Team Performance

● time in hours ● % To Target



24.54

Average Hours

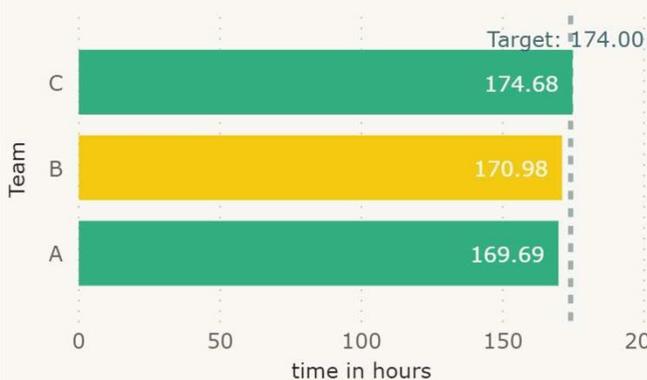
99.42%

% To Target

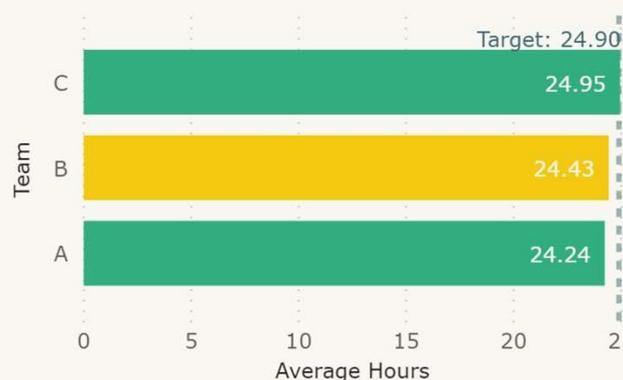
Team, ID

- A
 - AO
 - DP
 - GD
 - KP
 - MJ
 - OG
 - SW
- B
 - DB
 - DR
 - KM
 - KW
 - LN
 - LP
 - RT
- C
 - CE
 - CF
 - CS
 - GP
 - JM
 - ND
 - SF

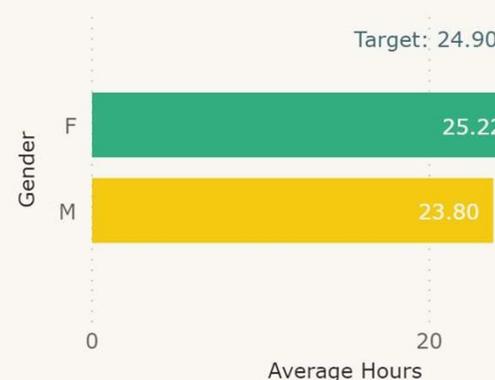
Hrs of work complete by each team



Avg Hrs of work complete by team members

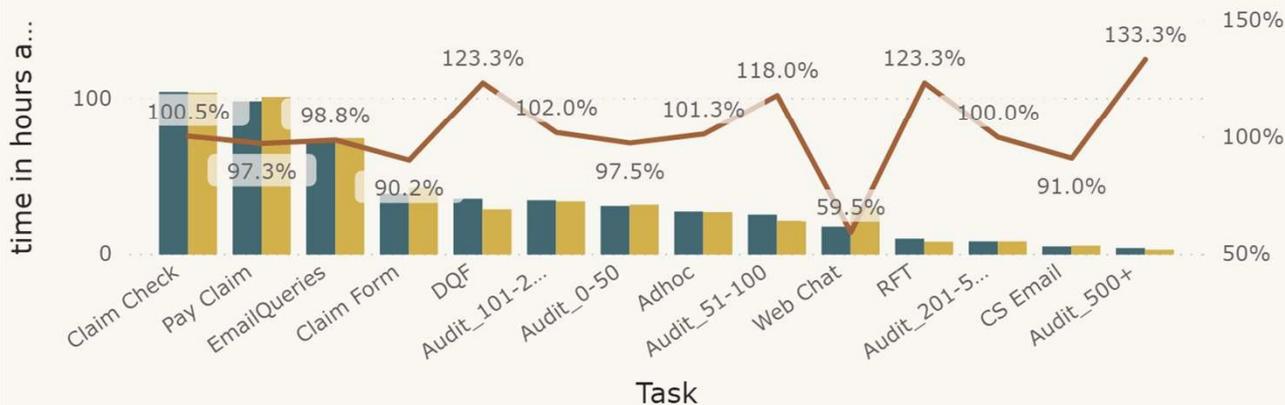


Gender Split for work complete

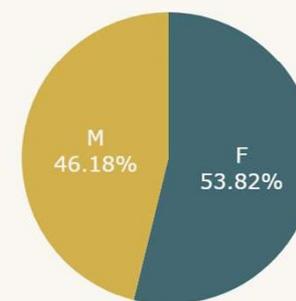


Hours Complete V Hours required (Expected)

● time in hours ● Sum of time required (hrs) ● % of Expected

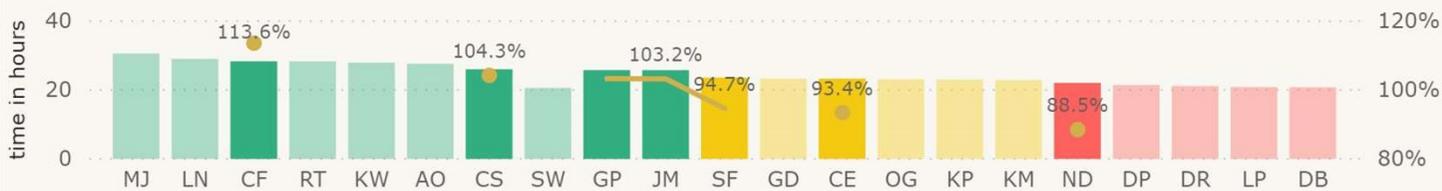


Gender Split for work complete



Team Performance

● time in hours ● % To Target



24.95

Average Hours

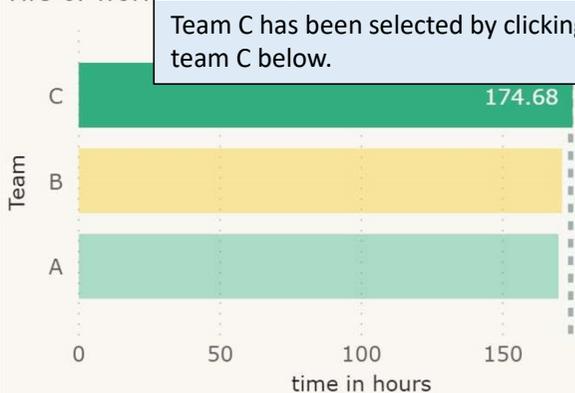
100.14%

% To Target

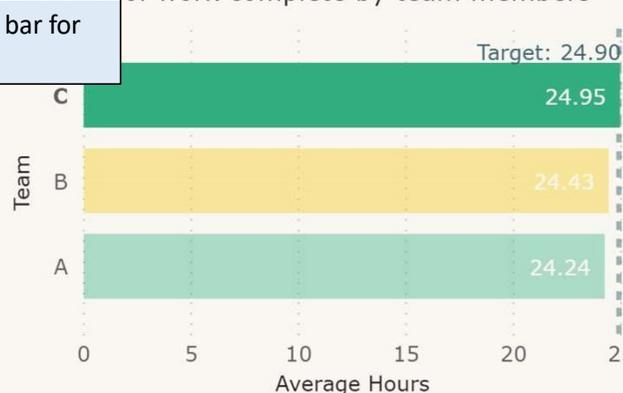
Team, ID

- A
 - AO
 - DP
 - GD
 - KP
 - MJ
 - OG
 - SW
- B
 - DB
 - DR
 - KM
 - KW
 - LN
 - LP
 - RT
- C
 - CE
 - CF
 - CS
 - GP
 - JM
 - ND
 - SF

Hrs of work complete by each team



Avg Hrs of work complete by team members



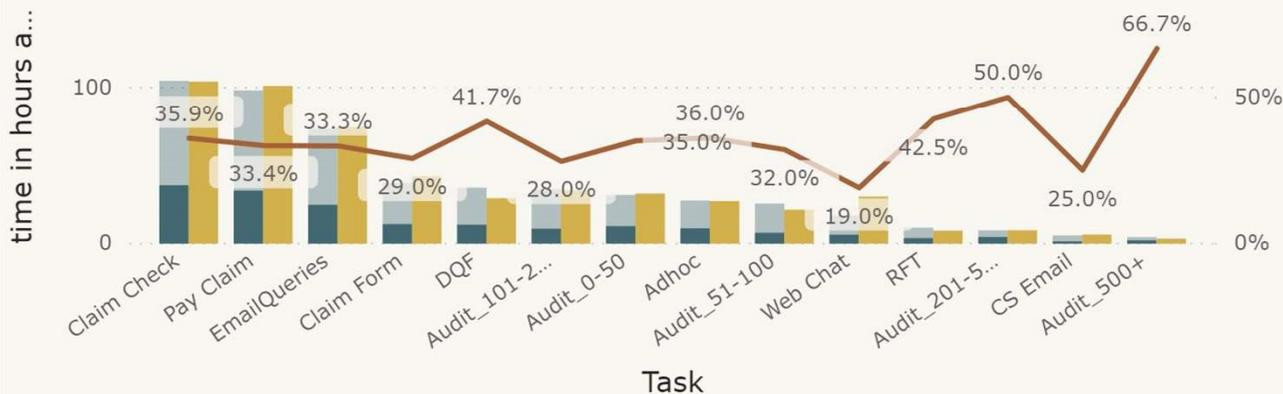
Gender Split for work complete



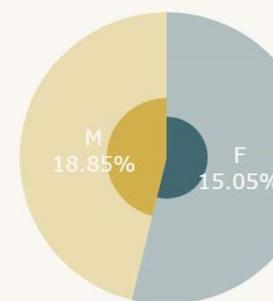
Team C has been selected by clicking on the bar for team C below.

Hours Complete V Hours required (Expected)

● time in hours ● Sum of time required (hrs) ● % of Expected



Gender Split for work complete

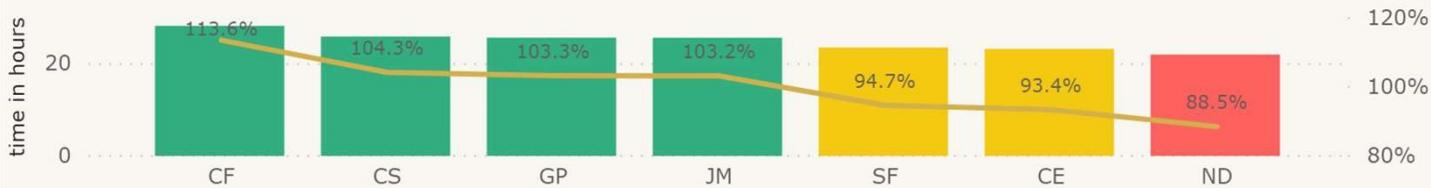


Any visualisation that has multiple values will go dark for elements that are represented by Team C and faint for elements not represented by Team C.

Single value visualisations like the two cards showing "Average Hours" and "% To Target" are specific to the selection "Team C"

Team Performance

● time in hours ● % To Target



24.95

Average Hours

100.14%

% To Target

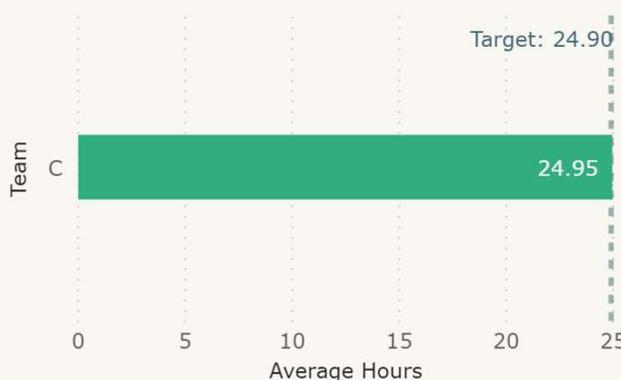
Team, ID

- ^ □ A
 - AO
 - DP
 - GD
 - KP
 - MJ
 - OG
 - SW
- ^ □ B
 - DB
 - DR
 - KM
 - KW
 - LN
 - LP
 - RT
- ^ ■ C
 - CE
 - CF
 - CS
 - GP
 - JM
 - ND
 - SF

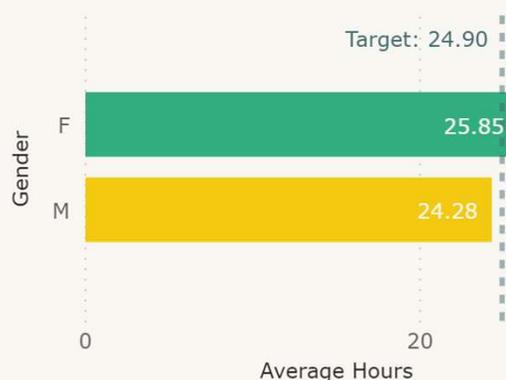
Hrs of work complete by each team



Avg Hrs of work complete by team members

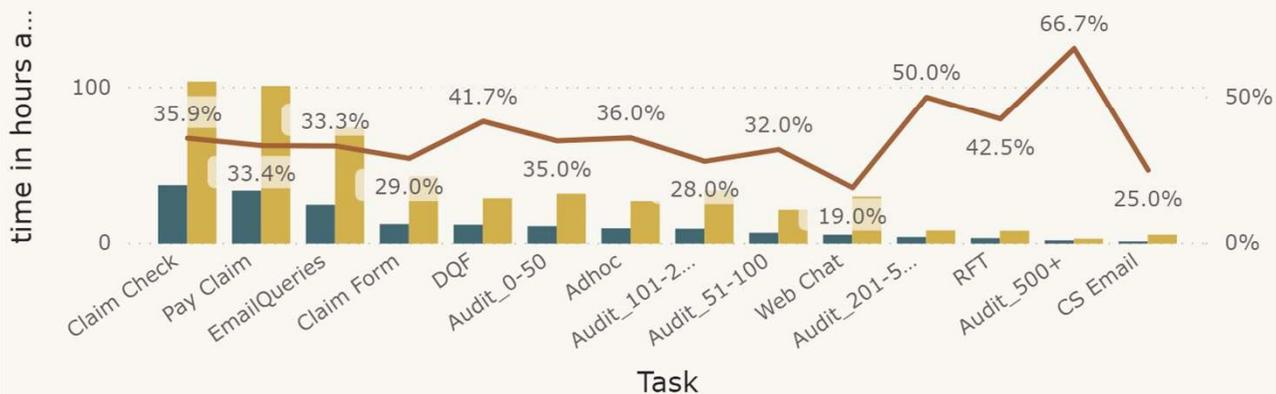


Gender Split for work complete

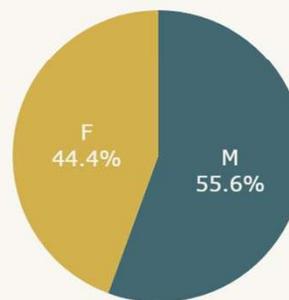


Hours Complete V Hours required (Expected)

● time in hours ● Sum of time required (hrs) ● % of Expected



Gender Split for work complete



Team C has been selected using the slicer. The report now only shows data specific to Team C. The flexibility to do both allows users to either focus solely on their own team or benchmark how their team is performing against other teams in the organisation.

Frequently Asked Questions:

Q1. What does a Telos Analytics Time and Motion study involve?

You decide which tasks you want to analyse, these tasks are recorded by your team as and when they occur in their normal working day. We then turn these recordings into data and ultimately MI illustrated in this pack. For the recording we use software already built into Windows PC's so there is no additional cost for software. As the tasks are recorded as they happen it means very little impact to the operation while the data is gathered. The whole process can be completed remotely, just securely send us the files and we'll do the rest.

Q2. How many recordings are required for each task?

Generally the more recordings the better, we would not recommend anything less than 10. Some tasks happen very infrequently so getting a large number of recordings may prove tricky. In these cases we may need to boost the numbers by doing "dummy" recordings.

Q3. How many people should be involved?

For the best results, we recommend doing the same number of recordings for each task for each individual that works on the task. If this is not possible you should try for a good cross section, otherwise your timings could be skewed by quick or slow workers

Frequently Asked Questions:

Q4. How long will the process take?

The recordings will be the most time consuming element, this can remain completely in your control allowing you to dictate the pace. Many clients however, prefer us to project manage it for them and drive things along to an agreed timeframe. The analysis is relatively straight forward and we aim to have it complete within a week of the recordings being complete.

Q5. How much does it cost?

The overall cost will depend on a number of factors and we recommend getting in touch and having a conversation. The cost for analysis is known and works on a sliding scale – see the table below for examples.

#Tasks	Total Cost
1	£1000
5	£3000
10	£4000
20	£5000
30	£6000

Frequently Asked Questions:

Q6. What can the data be used for?

Most Clients undertake this exercise looking for help with process improvement but the data once you have it, can be used in many different ways. Below is a list of common examples all of which Telos Analytics can help you with:

- Creation of accurate resource models
- Performance reporting.
- Business Cases to initiate change
- Benchmarks before major change with a secondary analysis after the change to show benefit realisation.
- Creation of Service Cost Models

Q7. Can you create a Continuous Improvement Framework using this data?

Yes absolutely, we specialise in Continuous Improvement below is a blog post that explains how.

<https://www.telosanalytics.co.uk/post/contact-drivers-v-contact-outcomes>