

UCSD BUILDING SHARED ANALYTICS CAPABILITIES

FOCUS ON EFFICIENCY

University of California San Diego's (UCSD) Business and Financial Services recently established a shared analytics unit to enable strategic decision-making and optimize business performance, utilizing and effective business intelligence platform.

Business and Financial Services consists of 10 divisions that provide centralized financial services to the campus. Over the last several years there had been a demand to demonstrate BFS's value using data and metrics. However, not all divisions produced analytics regularly or had a dedicated analytics position. As such, through a strategic planning process, BFS leadership identified the need to develop a comprehensive and unified approach to analytics, in order to increase customer satisfaction, increase efficiencies, and reduce costs.

BFS leveraged existing analytics resources in Procurement to create a shared Analytics unit. This unit began conducting current state assessments, providing guidance through a key performance indicators and metrics discovery process, gathering data requirements, and creating visualizations. The assessments revealed that data were being extrapolated from a variety of resources and manipulated in excel and PowerPoint to create management dashboards. The dashboards provided useful information; however, they were static, providing no access to the details behind the metrics. Additionally, the time-intensive manual dashboard updates often occurred quarterly or annually, providing little time to address issues and make improvements.

Once the data requirements were identified and sample metrics were created, the team collaborated with IT Services to build automatic refreshes for the dashboard using a business intelligence platform, Tableau Service. Divisions can now view real-time data on demand. They no longer need to wait until next quarter to measure results. With the self-service dashboards, managers can drill down to the details without asking an analyst to run reports.

As a result of leveraging the Procurement Analytics team on behalf of BFA, the automated dashboard has helped identify issues such as turn-around time, audit risks, compliance, client satisfaction and process efficiencies. To date, more than 27 metrics have been created that are being used to identify opportunities and potential risks, and demonstrate BFS's value.

QUANTIFICATION AND RESULTS

Through the shared analytics program, the following results are examples of what has been achieved:

Travel data revealed over 60 percent of transactions were processed in over 30 days. Travel used the data to validate a need for more resources and now 80 percent of transactions are processed in less than five days.

MILESTONES

Mar
2016

- Close observation period for monitoring and modifying system.
- Online feedback forms provide post-launch input.
- Students identify further improvements that meet their primary needs and wants.

Dec
2015

- Official launch with students quickly adopting the technology.

Early
Nov
2015

- Soft launch during an interim period.
- Both new automation system and former system run simultaneously.

Late
Nov
2015

- Project undergoes extensive testing by IT.
- Marketing team conducts pre-launch focus group of 20 UCI students.
- Feedback results in modifications to user interface.
- Useful alterations to all student-facing copy and design completed.

Sep
2015

- Hands-on development begins with anticipation for deployment no later than December.

- Improved study-pattern data.
- General accounting used the data to follow up with department that forget to update serial numbers on assets. This resulted in a 12 percent improvement on federally funded assets being tagged, therefore reducing audit risks.
- Award accountants now have visibility and real-time aging data of all accounts receivable with the ability to quickly identify 'bad' agencies and to efficiently monitor workload.
- Procurement receives a weekly transactional health dashboard to monitor process times and shares data with buyers who are not meeting the three-day turnaround time.

OPPORTUNITIES AND SOLUTIONS

In the past, access to meaningful data was rare. Metrics were done on an as-requested basis. By exposing divisions to what could be possible with data, there have been an increased number of enhancement requests and new metrics that divisions want to track. The program has inspired a curiosity about data and an understanding of the value and credence it can bring to strategic decisions. Our next steps are to partner with the Business Transformation Optimization unit and explore how this service can be utilized for client focused initiatives.

IMPACT AND BENEFIT

The impact the shared analytics unit had on divisions has created a data-informed culture focused on continuous improvement. Results can now be quantified, whereas in the past they were more subjective or intuition-based. Visibility into the data has helped improve relationships with our clients by focusing on turnaround times, identifying training topics, recognizing compliance issues, managing workload, and recovering payments, for example. This focus on continuous improvement and stewardship aligns BFS closely with the Chancellor's strategic goals, which will ultimately lead to a greater understanding of the campuswide value provided by BFS.

QUALITY, COST, OR DELIVERY

The ability to streamline data and create a self-service analytics environment has allowed managers to use data to communicate performance and identify opportunities for improvement that they can measure. The automated dashboards have shifted the work of the analysts who can now spend more time on analysis and less time on dashboard generation. What would sometimes take a month to update is now done in a matter of seconds with the auto-refresh ability.

LESSONS LEARNED

- 1 Ensure the right people are included in the discussion as it relates to strategy and metrics identification.
- 2 Clearly communicate expectations of roles and hold parties accountable.

PROJECT TEAM

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project manager

Tim Wheeler
project team member

Josh Karpen
project team member

Ted Johnson
sponsor

IT SERVICE TEAM

Katrina Albrandt

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Spurgeon Thomas

Nguyen Trieu

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Jason Borinski

Steven Higgins

Martin Krolík

Dee Seneviratne

3

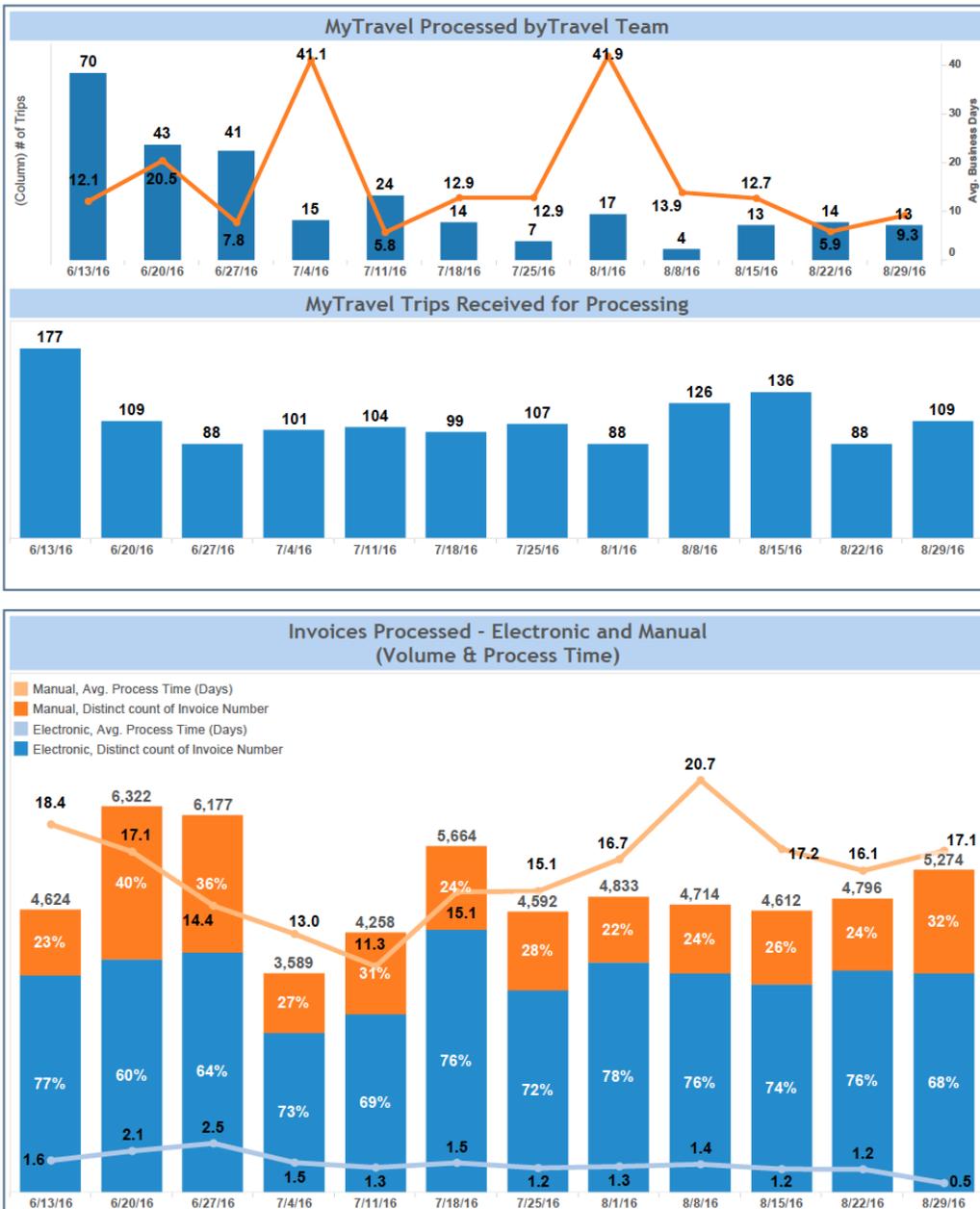
Metric development is an iterative process. Sometimes what users ask for is not always what they truly want. Ask detailed questions to understand what they really need.

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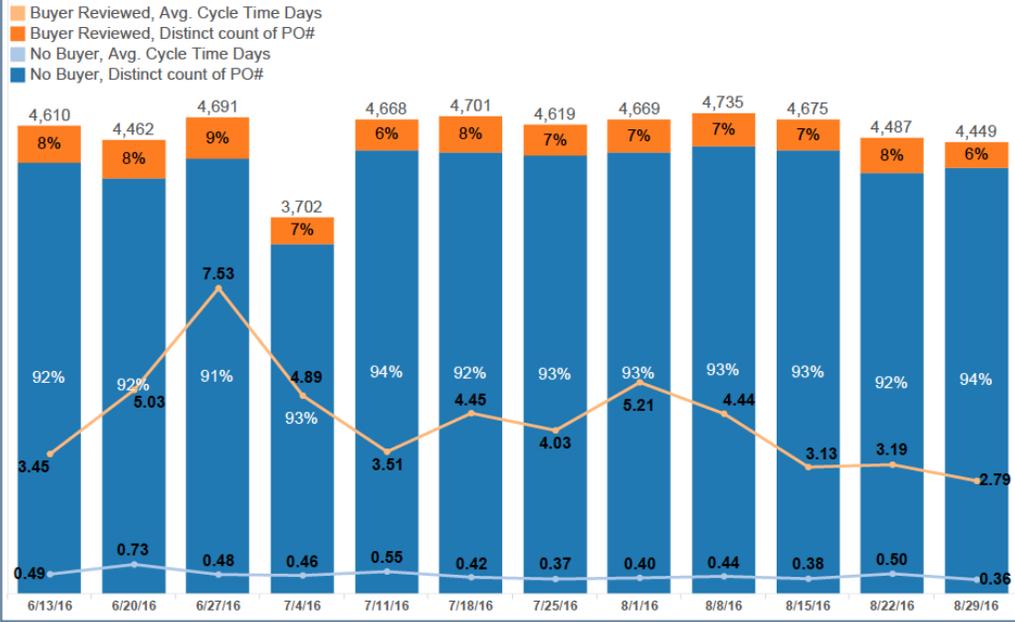
When creating a timeline for metric development, be mindful of the 80-20 rule. Eighty percent of your effort will be sourcing, cleaning and preparing the data, while the remaining 20 percent is actual data analysis.

WEEKLY TRANSACTIONAL METRICS DASHBOARD

(Dates Represent Start of Week)



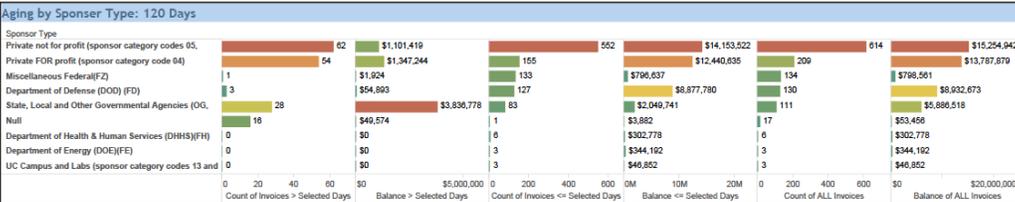
Requisition-to-Purchase Order - Buyer & Non-Buyer (Volume & Process Time)

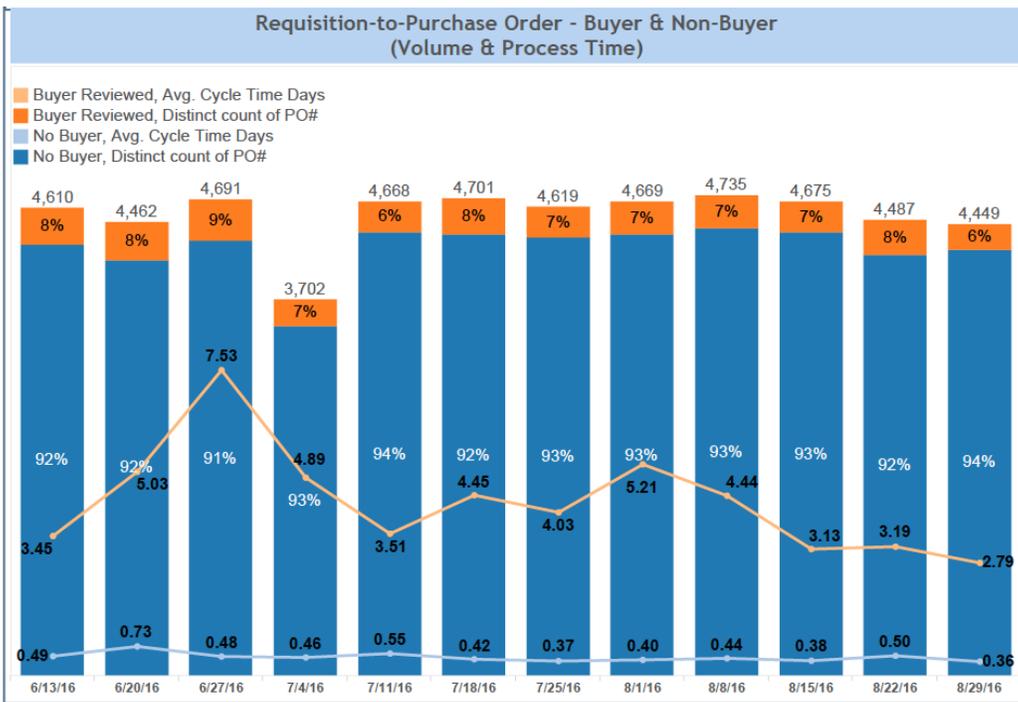


BFS ANALYTICS OPAFS: RESEARCH ACCOUNTS RECEIVABLE (120 Days)

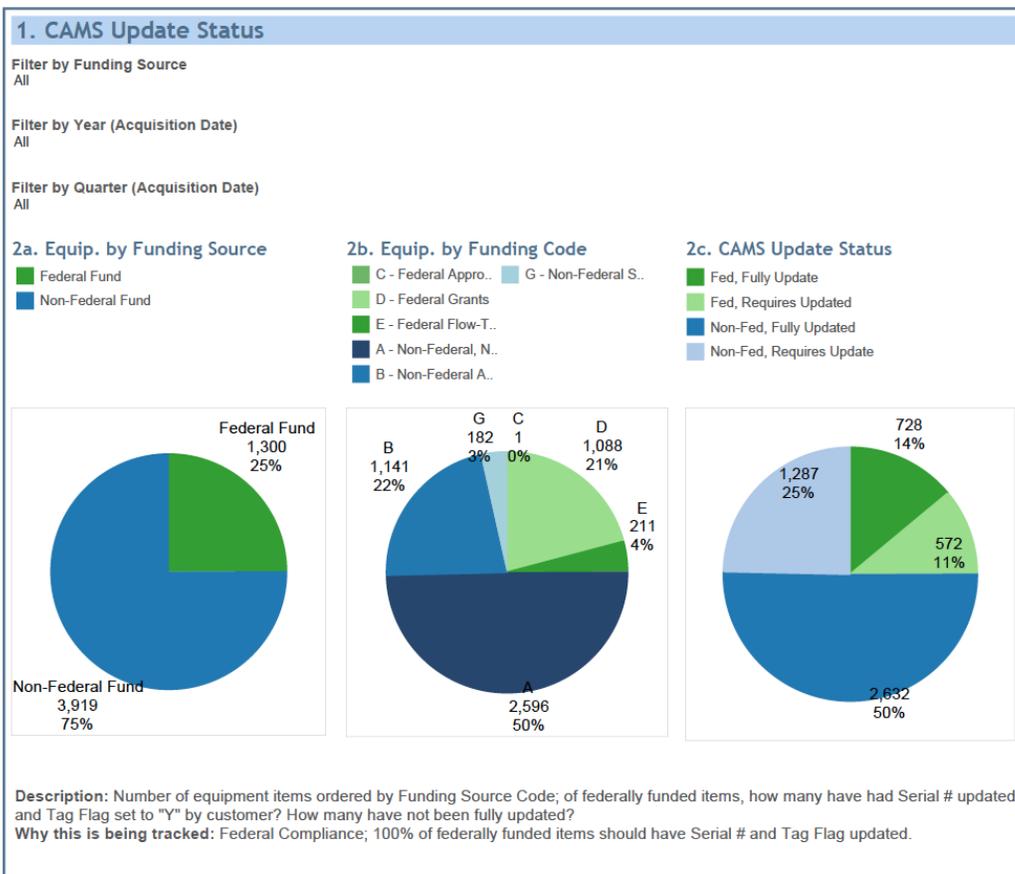
View	% of Total Balance	Balance	Avg. Balance	Avg. Elapsed Days	Count of Document#
<=120 Days	86%	\$39,016,020	\$36,704	30	1,063
>120 Days (lower = better)	14%	\$6,391,832	\$38,975	371	164
Grand Total	100%	\$45,407,851	\$37,007	76	1,227

Top 10 Agencies by Balance: 120 Days			Top 10 Agencies by Elapsed Days: 120 Days			Top 10 Agencies by fund count: ALL				
Agency	Max. Elapsed Days	Balance Selection	Agency	Max. Elapsed Days	Balance Selection	Agency	Count of Fund	>120 Balance	>180 Balance	Balance
	910	\$3,500,000		1,547	\$40,574		79	\$1,924	\$1,924	\$676,596
	201	\$228,032		1,020	\$96,865		52	\$0	\$0	\$4,926,623
	246	\$187,177		1,380	\$26,740		47	\$0	\$0	\$316,513
	296	\$182,197		1,240	\$3,769		18	\$0	\$0	\$596,384
	420	\$110,412		1,001	\$95,782		12	\$0	\$0	\$461,766
	141	\$116,667		910	\$3,500,000		12	\$74,675	\$53,878	\$196,618
	239	\$113,870		785	\$165		12	\$228,032	\$181,734	\$542,091
	1,520	\$99,965		713	\$44,303		11	\$0	\$0	\$615,475
	1,001	\$95,782		700	\$8,909		10	\$0	\$0	\$748,678
	287	\$93,469		590	\$88,697		9	\$85	\$0	\$194,884





BFS ANALYTICS GENERAL ACCOUNTING - CAPITAL ASSETS



2. Invoice/PO Reconciliation

Filter by Year (Acquisition Date)

All

Quarter (Acquisition Date)

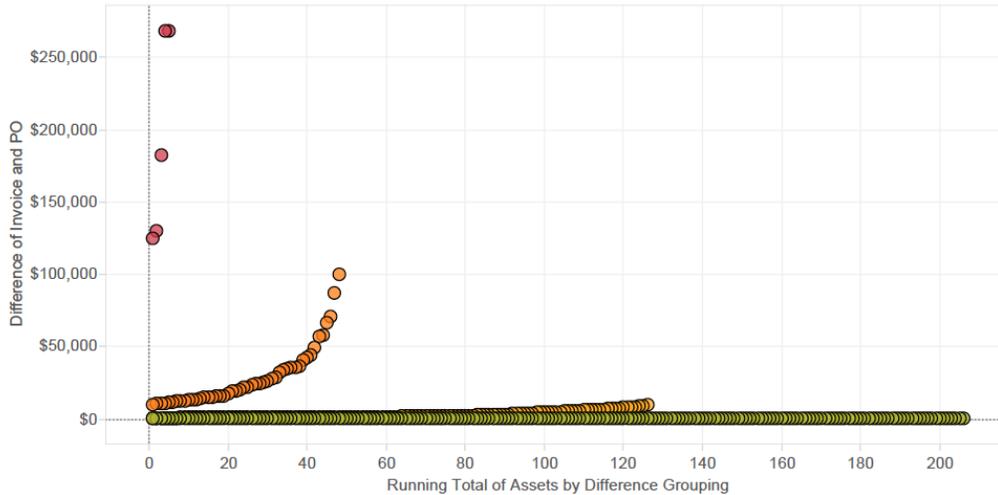
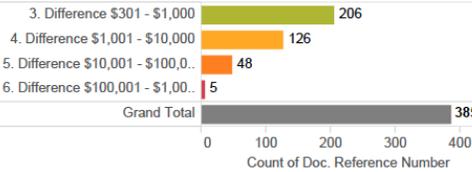
All

Filter on Over or Under Invoiced

- No Difference
- Over-Invoiced
- Under-Invoiced

Filter on Absolute Difference

- 2. Difference \$0.01 - \$300
- 3. Difference \$301 - \$1,000
- 4. Difference \$1,001 - \$10,000
- 5. Difference \$10,001 - \$100,000
- 6. Difference \$100,001 - \$1,000,000



Description: Reconciliation of Purchase Order to Invoice amounts. Difference within \$300 is acceptable range. Showing equipment with CAMS Acquisition Date in dashboard time period.

Why this is being tracked: Financial Control metric.

Note:

Invoice/PO Difference segments are based on absolute difference values.

Positive difference means invoiced amount greater than PO commitment (over-invoiced)

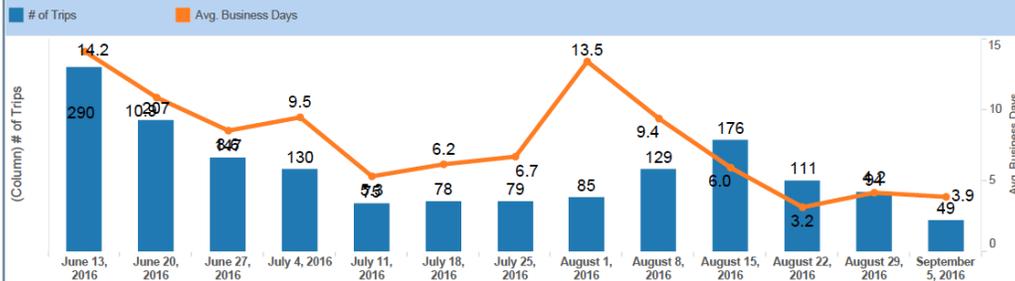
Negative difference means invoiced amount less than PO commitment (under invoiced)

BFS ANALYTICS TRAVEL VOLUME & PROCESS TIME

1a. MyTravel Processed by Travel Team

(Volume & Process Time)

Last Update: 9/9/2016 11:15:38 AM



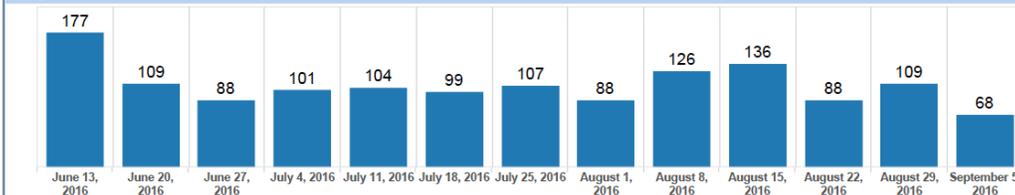
Description: Provides a summary of the number of trips processed by the Travel Team.

Why this is being tracked: To analyze volume, capacity, and trends pertaining to processing times.

2. MyTravel Received for Processing

(Trend)

Last Update: 9/9/2016 11:15:39 AM



Description: Provides a summary of the number of trips that came into Travel's queue for processing.

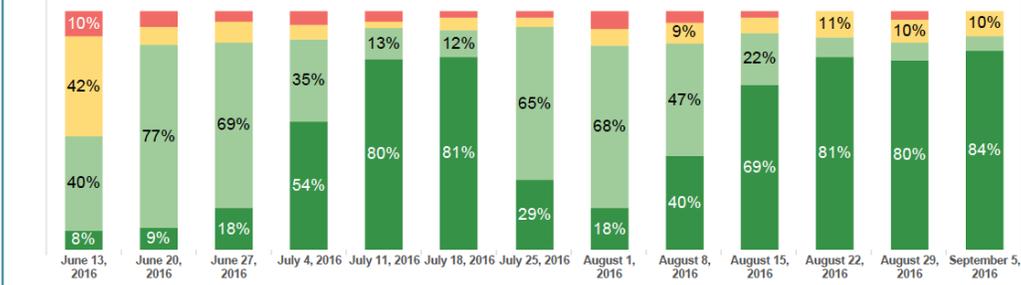
Why this is being tracked: To analyze future capacity issues.

1b. MyTravel Processed by Travel Team

(Time Distribution)

Last Update: 9/9/2016 11:15:38 AM

>30 Days 10-30 Days 5-9 Days < 5 Days



Description: Provides a summary of Travel's average processing times.

Why this is being tracked: To analyze volume, capacity, and trends pertaining to processing times.