Analytics and Your Neighbors – Comparative Approaches

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igelu International Group of Ex Libris Users

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Agenda

1. **Introduction**
2. **Benchmark Analytics**
3. **Comparative Collection Analytics**

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Introduction

- Cooperative friendly neighbors

https://www.usnews.com/cmsmedia/4c/f6/9ffcd3384bef804f289a888780a4/151213-friendlyneighbors-stock.jpg

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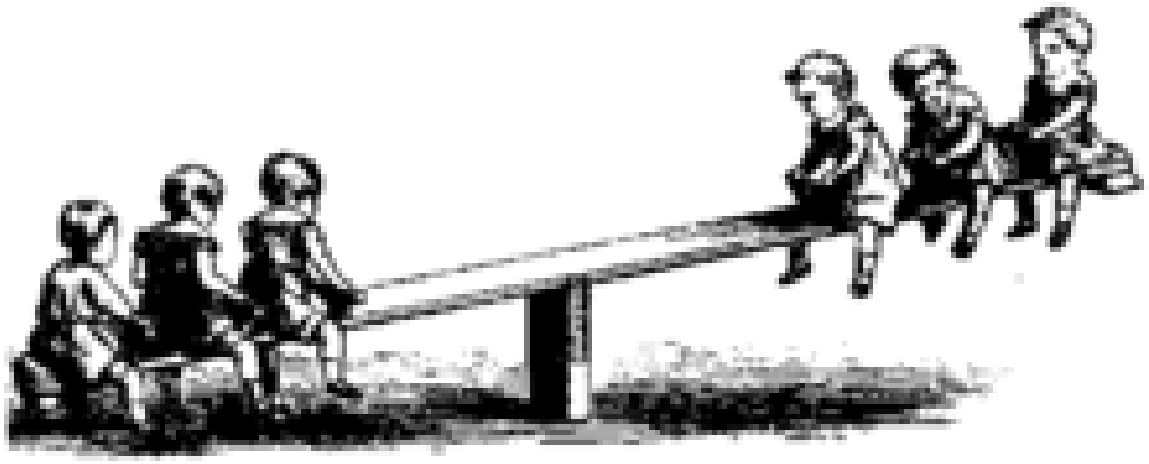
Introduction

- Not like this

http://static.srcdn.com/wp-content/uploads/Neighbors-2-Sorority-Rising-Cast.jpg

Introduction

- When performing comparative analysis, there is a need to balance different aspects of the comparison
  - The depth/detail of data
  - The breadth of comparison/number of institutions comparing to



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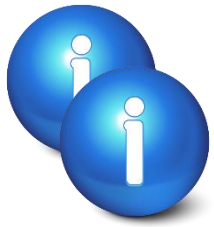
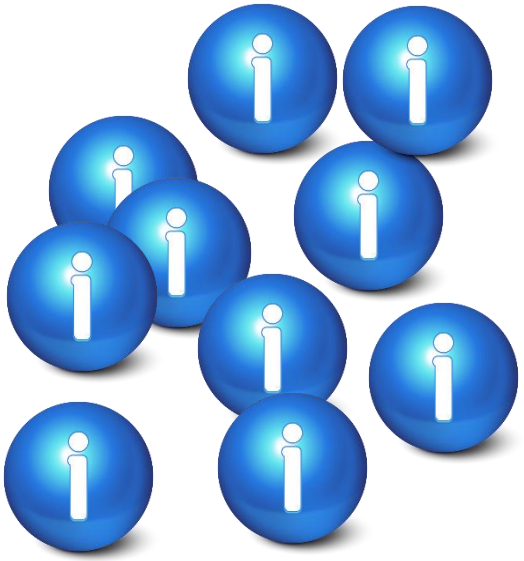
Introduction

- **Benchmark Analytics** puts focus on the **breadth** of comparison
- Data being compared is high level/KPI



Introduction

- **Comparative Collection Analytics** puts focus on the **depth** of comparison
- Group for comparison is smaller



Agenda

1. Introduction
2. **Benchmark Analytics**
3. Comparative Collection Analytics

Benchmark Analytics

- The overall goal and idea of the Benchmark analytics is for the institution to identify
  - Where in their workflows improvements can be made
  - Where processes are already at a satisfactory or above satisfactory level.

- One way for doing this is to compare KPIs (Key Performance Indicators) with other institutions

- The KPIs can be measured on a monthly or yearly basis. This enables the identification of trends.

- **Already live and in production. New KPIs are being added throughout the remainder of 2017 and 2018.**

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Benchmark Analytics

- For example, an institution may see that from the time of ordering physical items until the time the item arrives takes significantly longer than the average for other institutions.
- This institution can then drill down to investigate where in the process there may be a problem.
    - It may be that between the time the order is created until the time it is sent takes too long because the “review” process is taking too long.
    - It may be that certain vendors are taking an unusually long time to process the orders.
    - There could also be a problem with the period from when the item arrives to the institution until it arrives to the acquisitions librarian to scan it in.
- Benchmark analytics allows the institution to identify these issues

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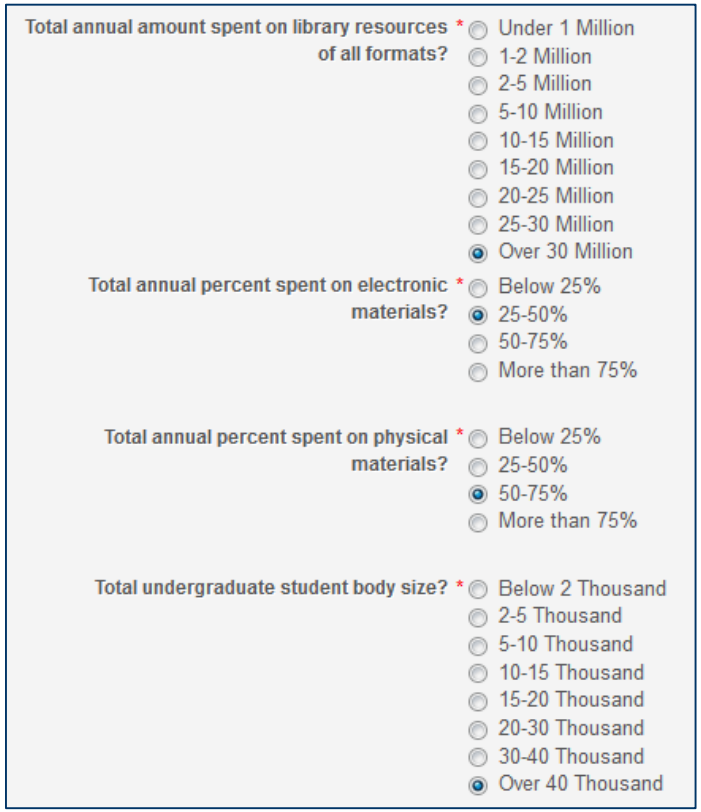
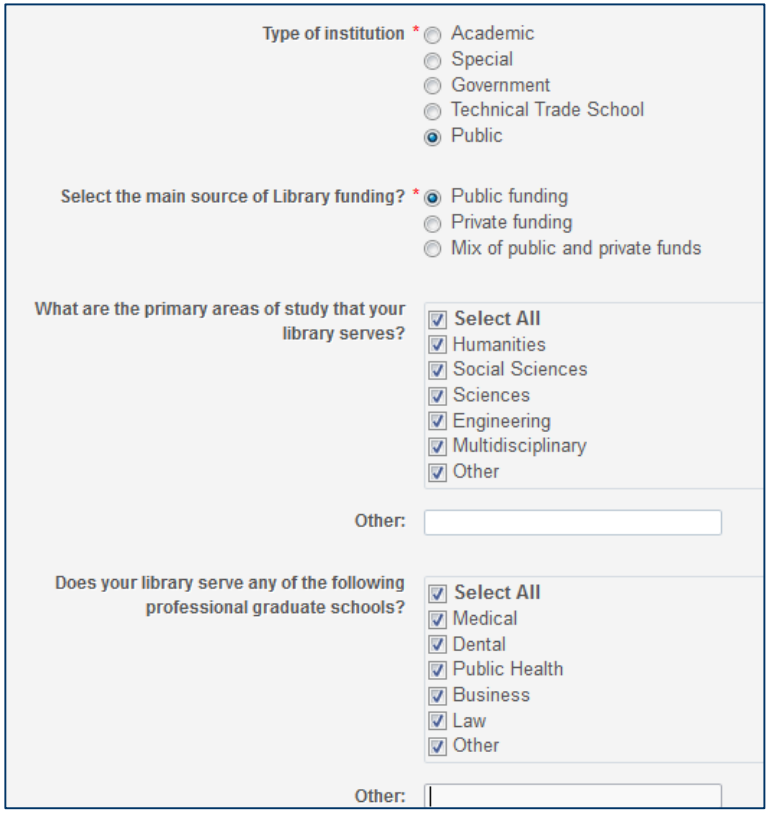
Benchmark Analytics

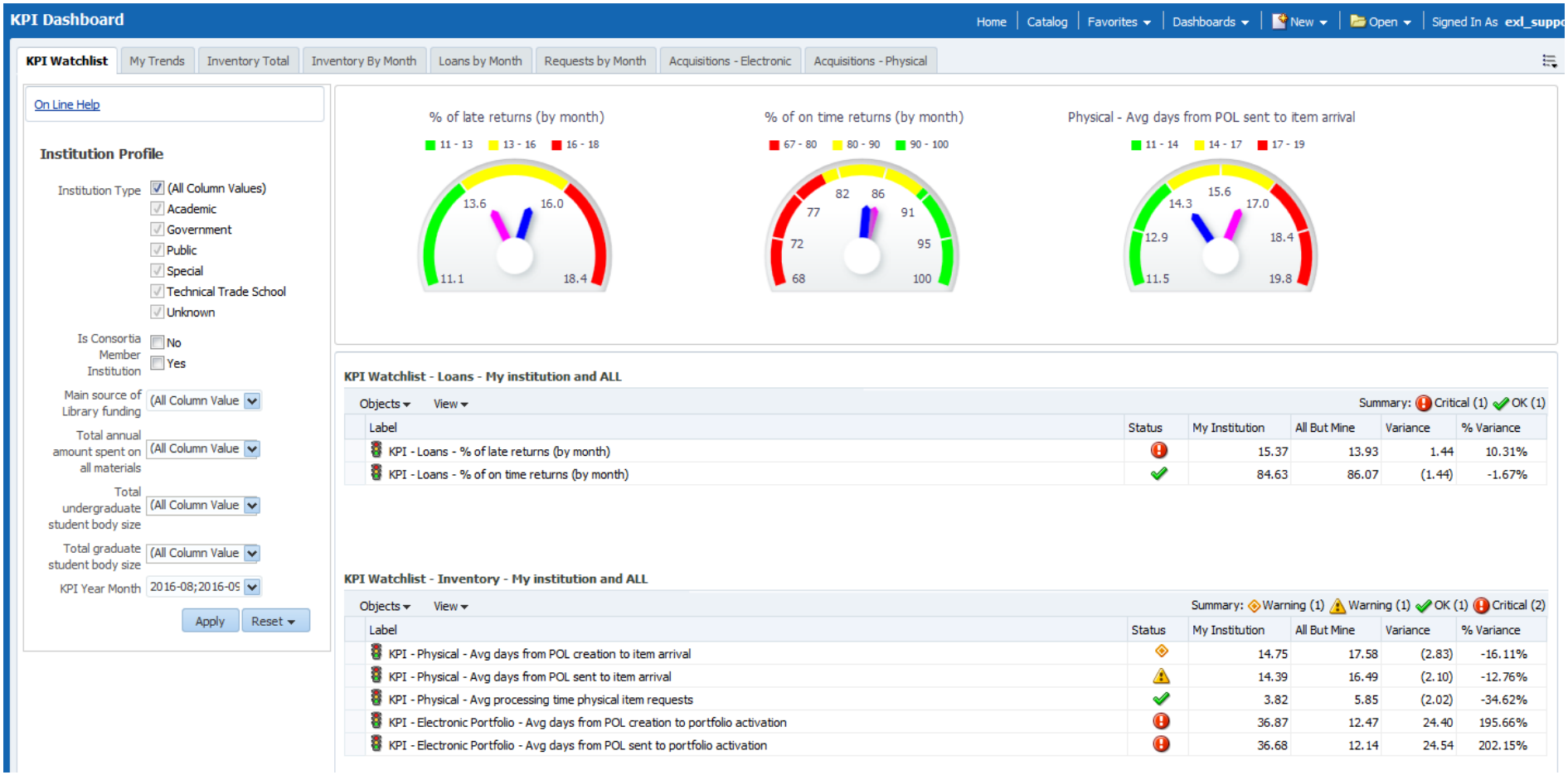
- As part of the process each institution is defined with a profile so that they can be compared appropriately with other institutions, in a **non-identifying manner**





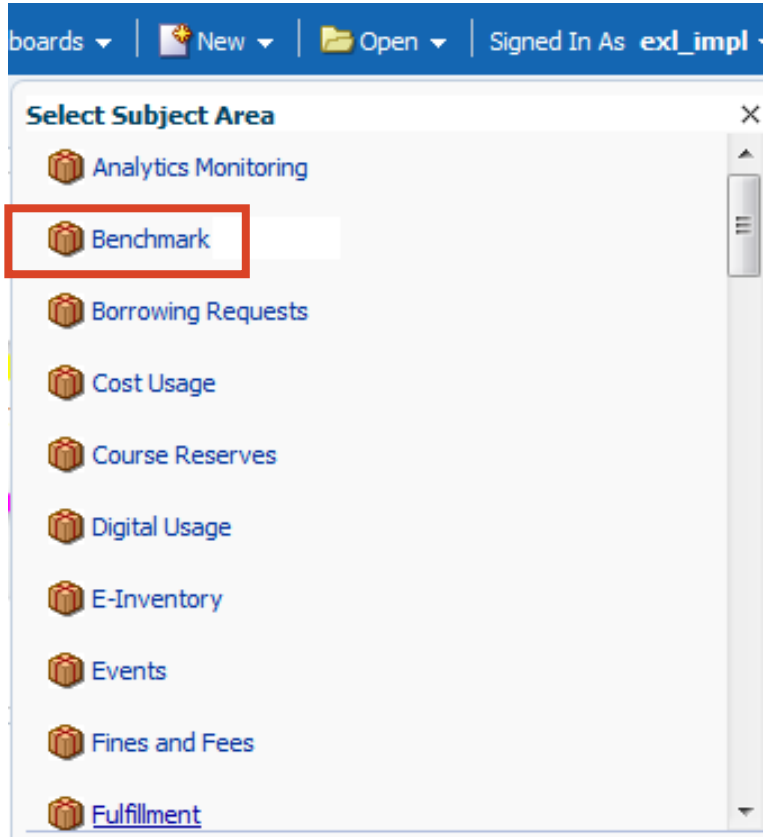
Benchmark Analytics

- The Benchmark Analytics can be easily accessed via an “out of the box” customizable and ready to use KPI dashboard.

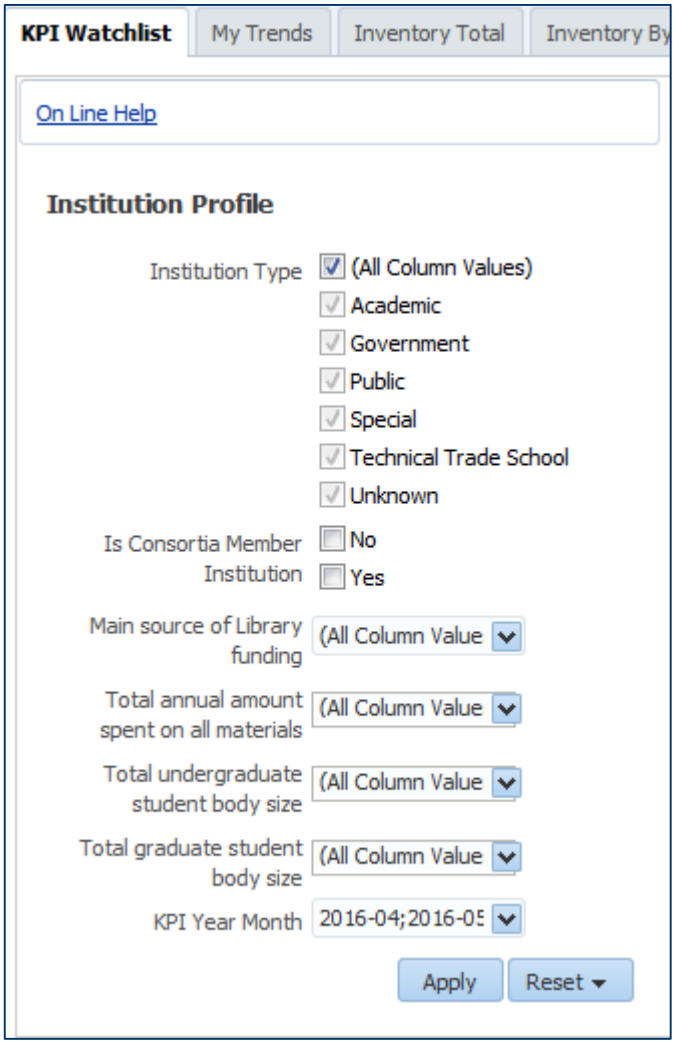


Benchmark Analytics

- The Benchmark Analytics is a subject area in Alma Analytics and, like all other subjects, customized specific reports can be created on demand by each institution.



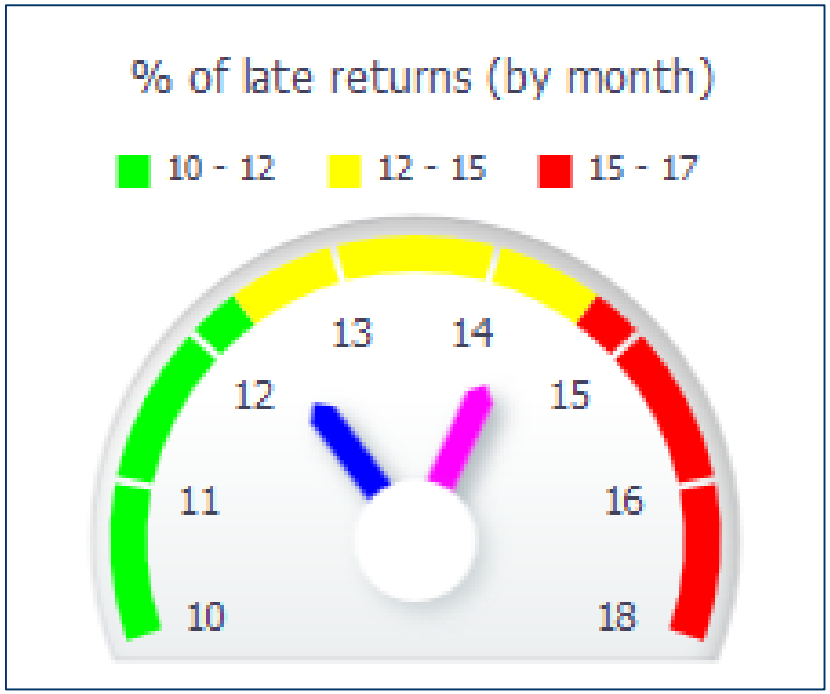
Benchmark Analytics - KPI Watchlist



- As is the case with all tabs in the KPI Dashboard the comparison to other institutions can be filtered by various criteria.

Benchmark Analytics - KPI Watchlist

- The KPI Watchlist provides a summary of various KPIs which can be seen together.
- The gauges quickly inform the user where his institution (blue dial) stands in comparison to other institutions (pink dial)



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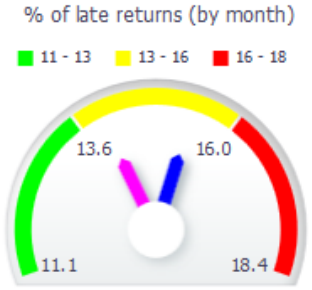
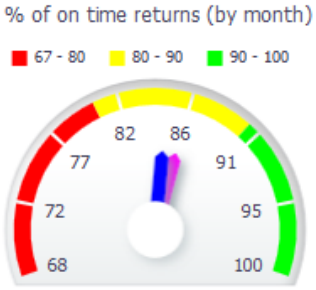
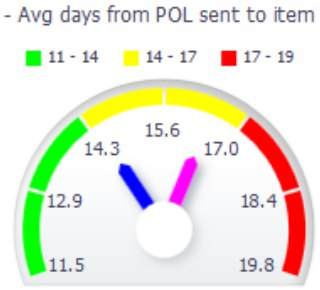
Benchmark Analytics - KPI Watchlist







KPI Watchlist - Loans - My institution and ALL

Objects ▾ View ▾ Summary: Critical (1) OK (1)

Label	Status	My Institution	All But Mine	Variance	% Variance
KPI - Loans - % of late returns (by month)	Critical	15.37	13.93	1.44	10.31%
KPI - Loans - % of on time returns (by month)	OK	84.63	86.07	(1.44)	-1.67%

KPI Watchlist - Inventory - My institution and ALL

Objects ▾ View ▾ Summary: Warning (1) Warning (1) OK (1) Critical (2)

Label	Status	My Institution	All But Mine	Variance	% Variance
KPI - Physical - Avg days from POL creation to item arrival	Warning	14.75	17.58	(2.83)	-16.11%
KPI - Physical - Avg days from POL sent to item arrival	Warning	14.39	16.49	(2.10)	-12.76%
KPI - Physical - Avg processing time physical item requests	OK	3.82	5.85	(2.02)	-34.62%
KPI - Electronic Portfolio - Avg days from POL creation to portfolio activation	Critical	36.87	12.47	24.40	195.66%
KPI - Electronic Portfolio - Avg days from POL sent to portfolio activation	Critical	36.68	12.14	24.54	202.15%

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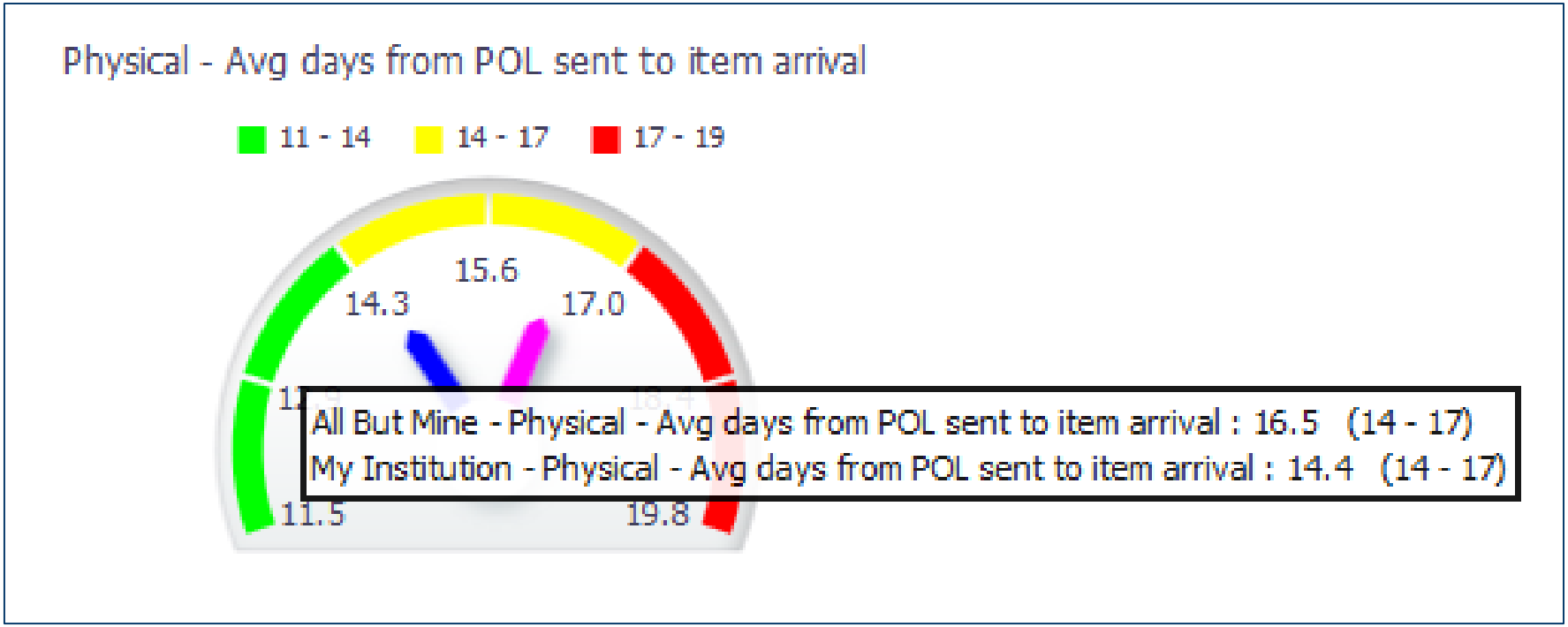
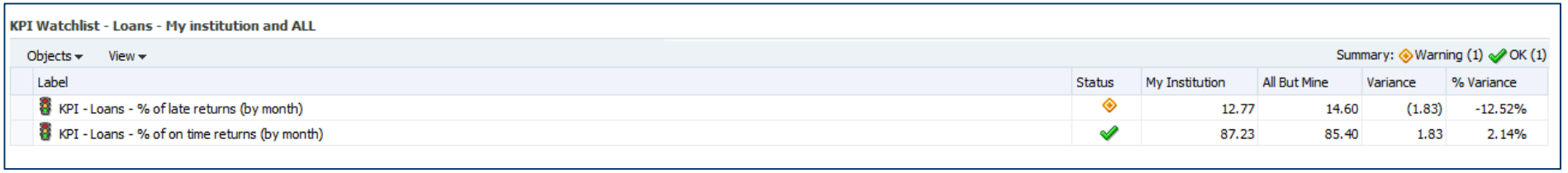
Benchmark Analytics - KPI Watchlist

- Hovering over the gauge provides further details. When the dial is near the green this is good.
- When the dial is near the red this is a warning



Benchmark Analytics - KPI Watchlist

- The KPI Watchlist also provides the information in tabular form with status indicators of warning, critical and OK



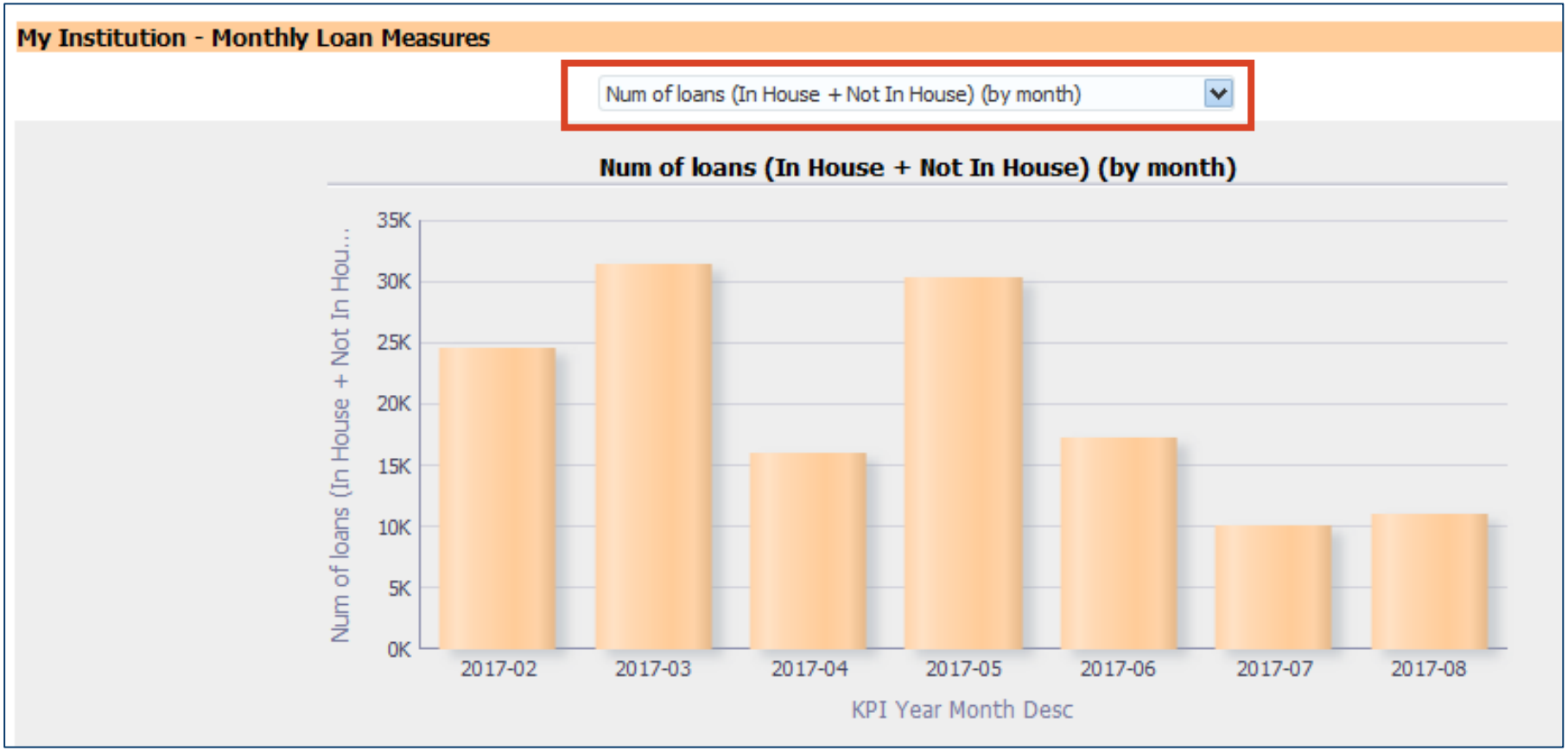
KPI Watchlist - Loans - My institution and ALL

Objects ▾ View ▾ Summary: Warning (1) OK (1)

Label	Status	My Institution	All But Mine	Variance	% Variance
KPI - Loans - % of late returns (by month)	◈	12.77	14.60	(1.83)	-12.52%
KPI - Loans - % of on time returns (by month)	✓	87.23	85.40	1.83	2.14%

Benchmark Analytics - My Trends

- The “My Trends” tab of the dashboard provides the institution with an up close look at his own institution, and may be filtered by time and specific measures.

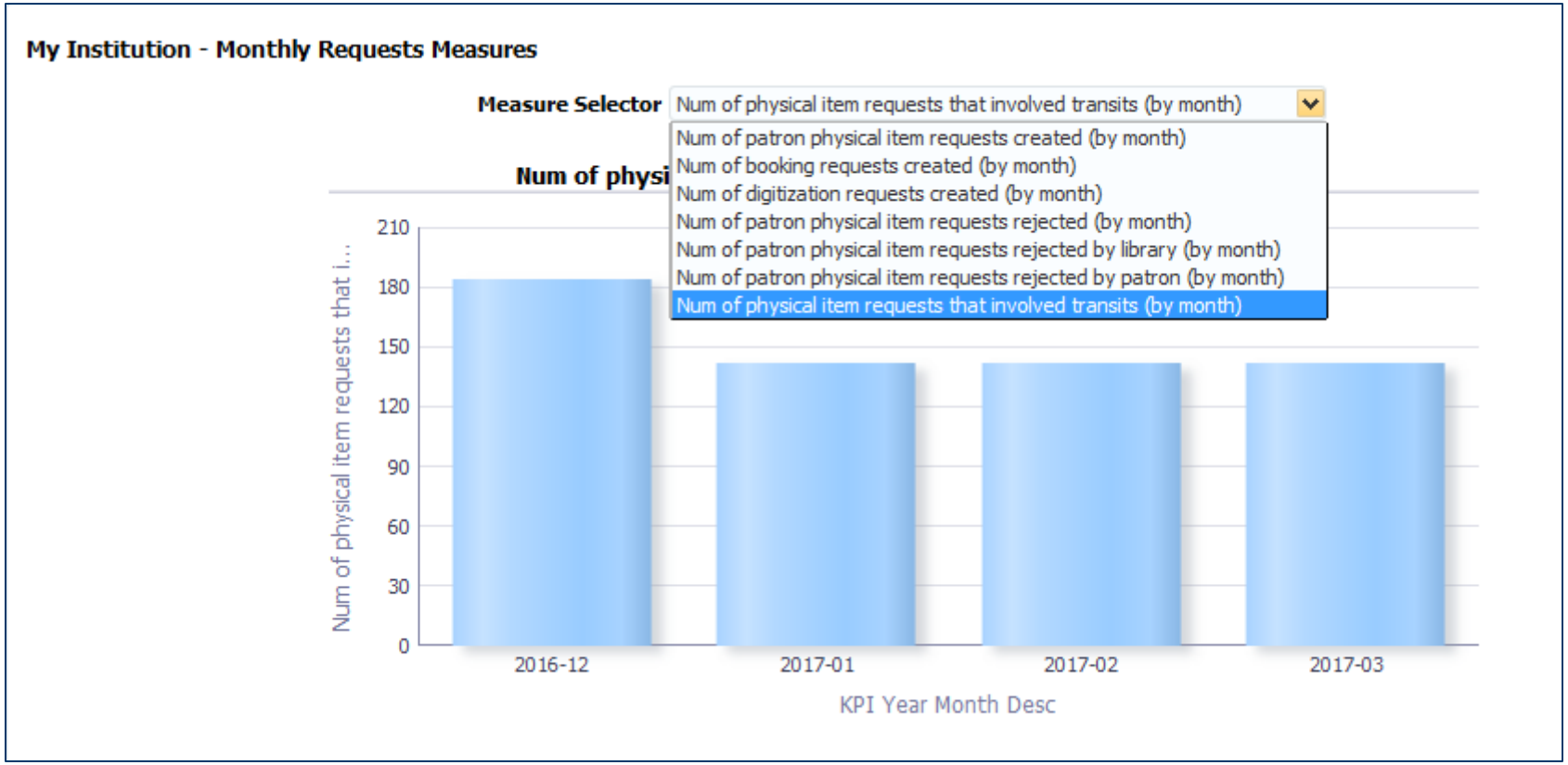


Benchmark Analytics - My Trends

- The “My Trends” currently includes five areas of measurements.
  - Monthly requests measures
  - Monthly loan measures
  - Monthly inventory measures
  - Monthly Borrowing Requests
  - Monthly Lending Requests

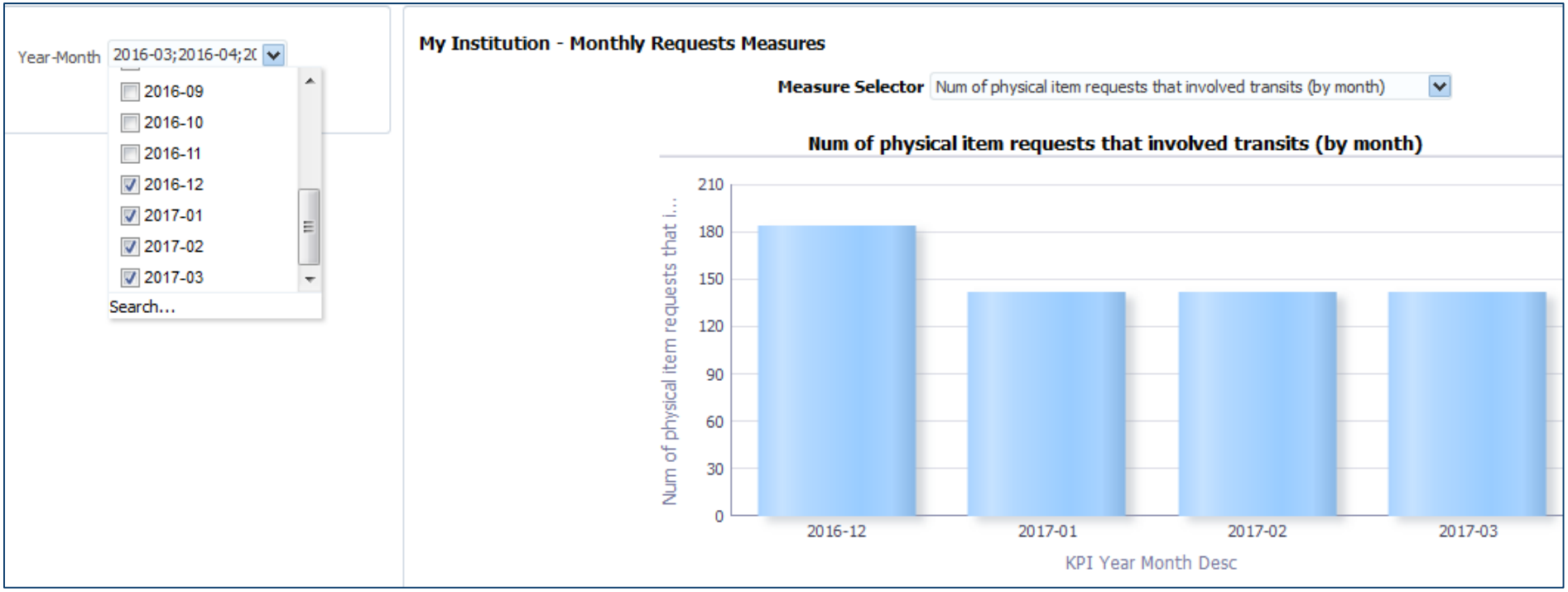
- Each area includes several measures

Benchmark Analytics - My Trends



Benchmark Analytics - My Trends

- And, of course, each institution can choose the dates for which he wants to see the trends



Benchmark Analytics - Inventory Total

- The Inventory Total tab allows the institution to compare its inventory to other institutions
- At the current time this includes:
  - Number of bibliographic records in repository (total)
  - Number of electronic collections in repository (total)
  - Number of electronic portfolios in repository (total)
  - Number of physical items in repository (total)

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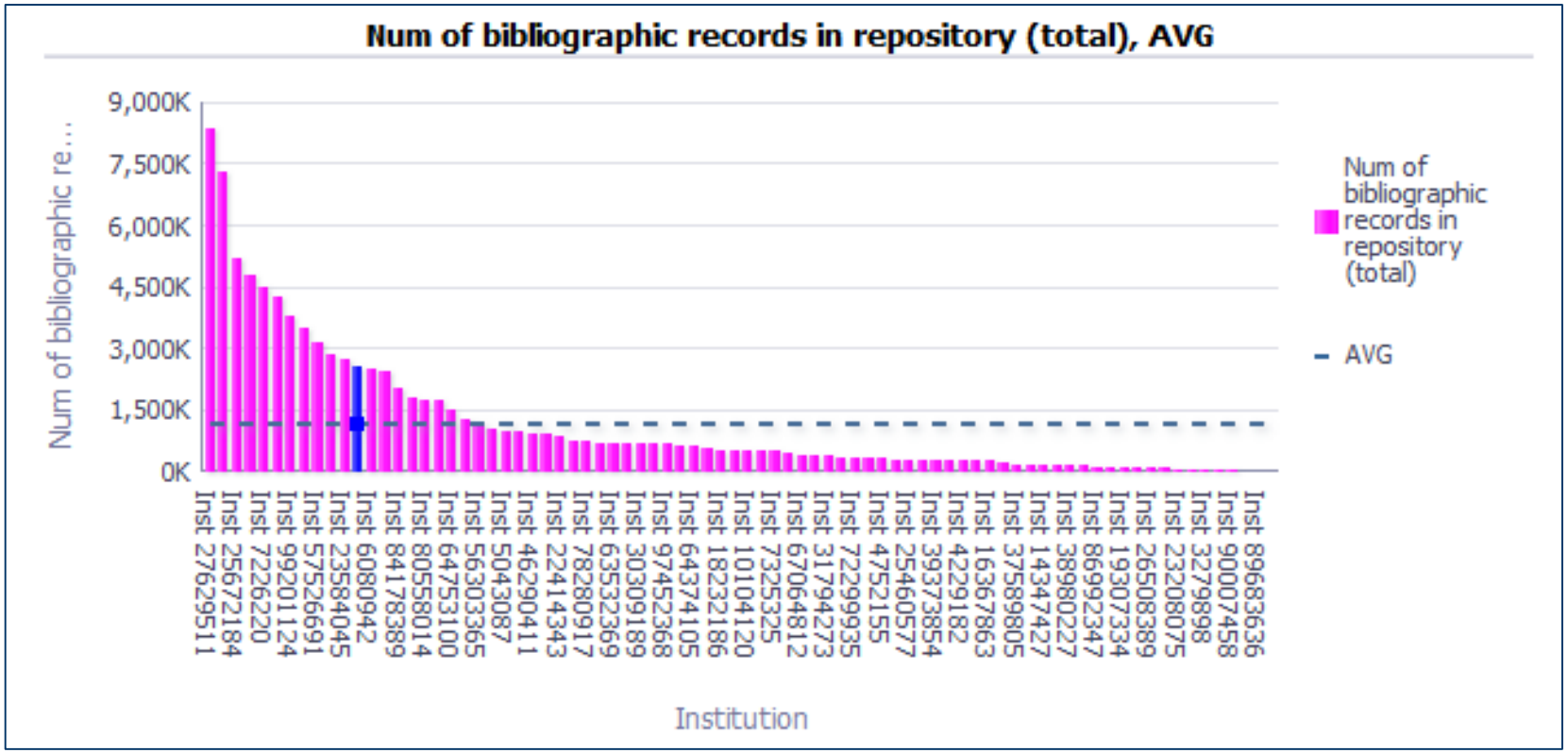
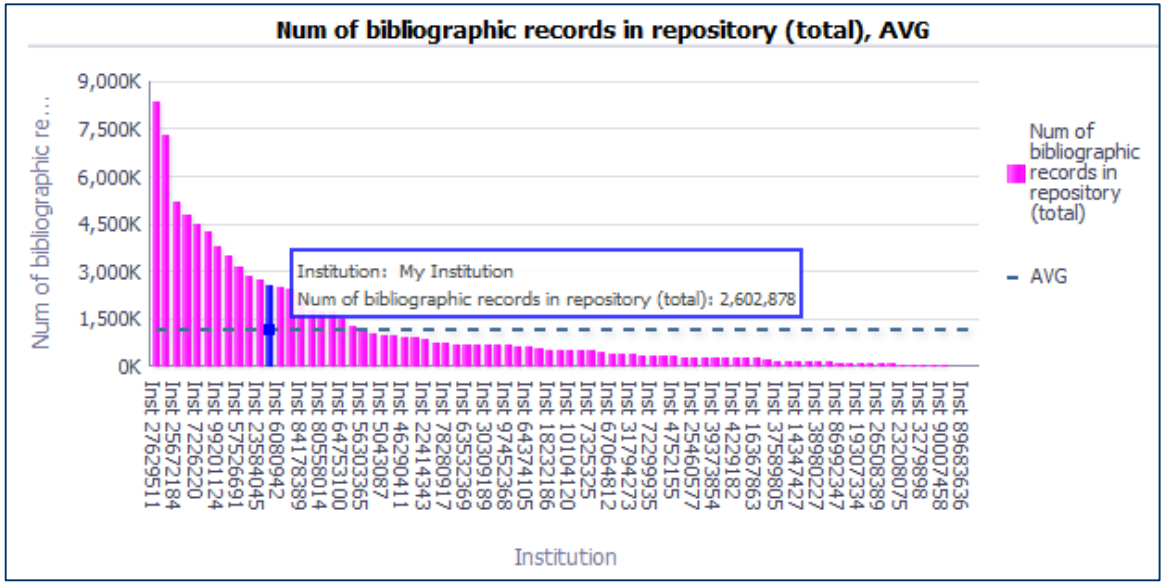
Benchmark Analytics - Inventory Total

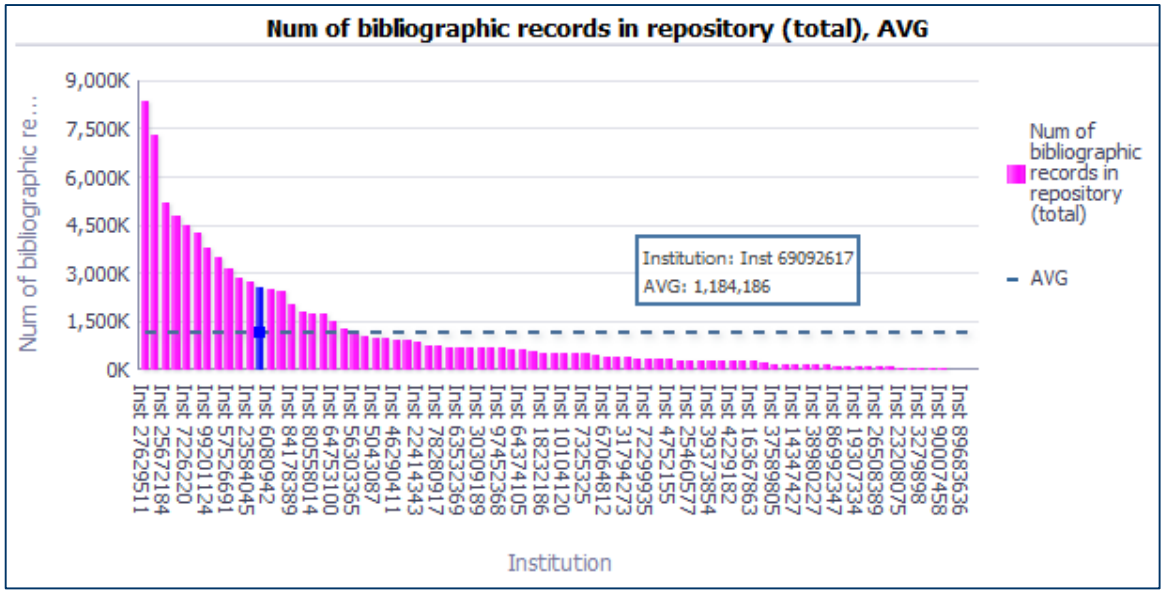
- The dotted line is the average
- The blue bar is “my institution”
- The pink bars are all other institutions.



Benchmark Analytics - Inventory Total

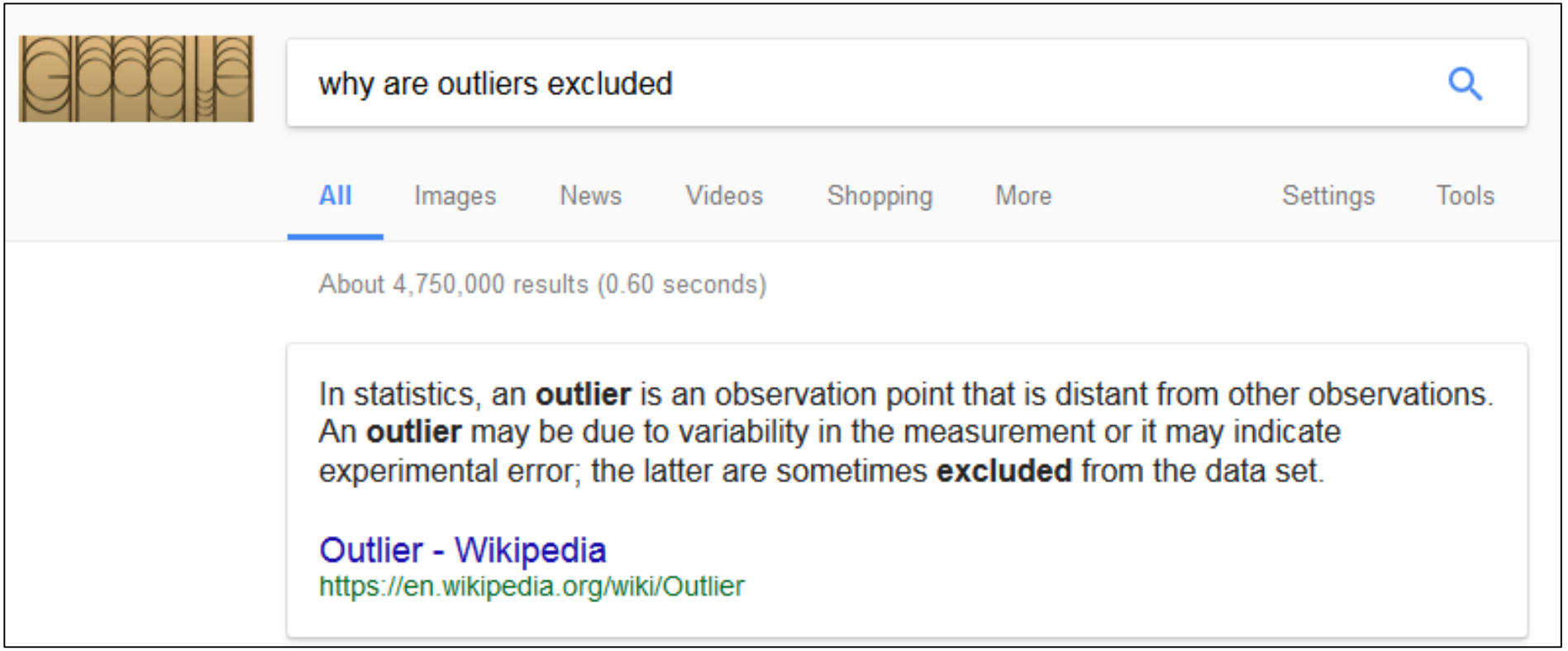
Hovering over the data provides additional information.





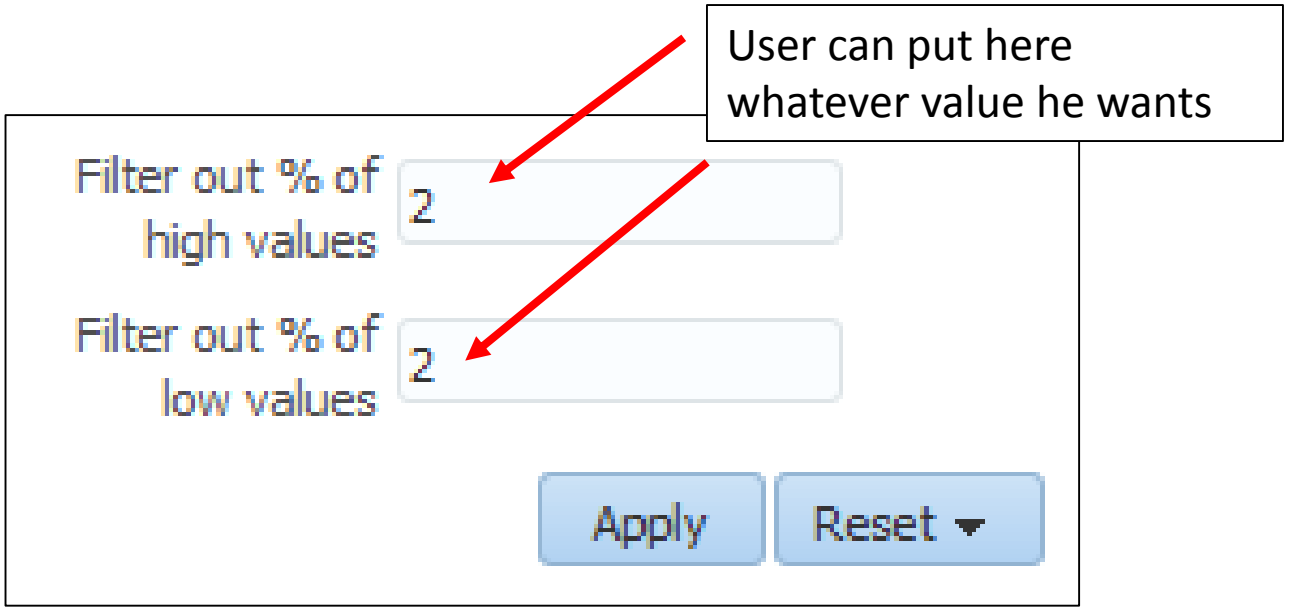
Inventory Total

- The outliers can also be removed from the graphs



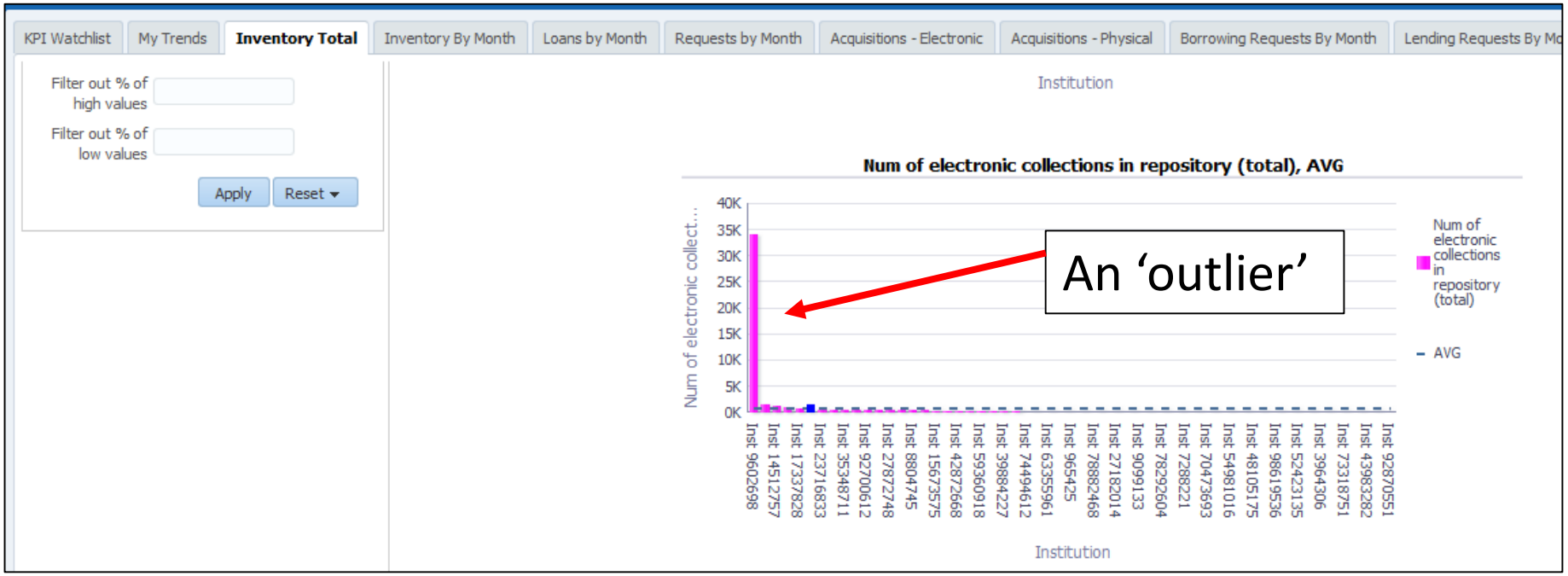
Inventory Total

- It is possible to filter out the extreme high and low values (outliers) in benchmark analytics graphs.
- This gives **a more accurate picture** of the situation.



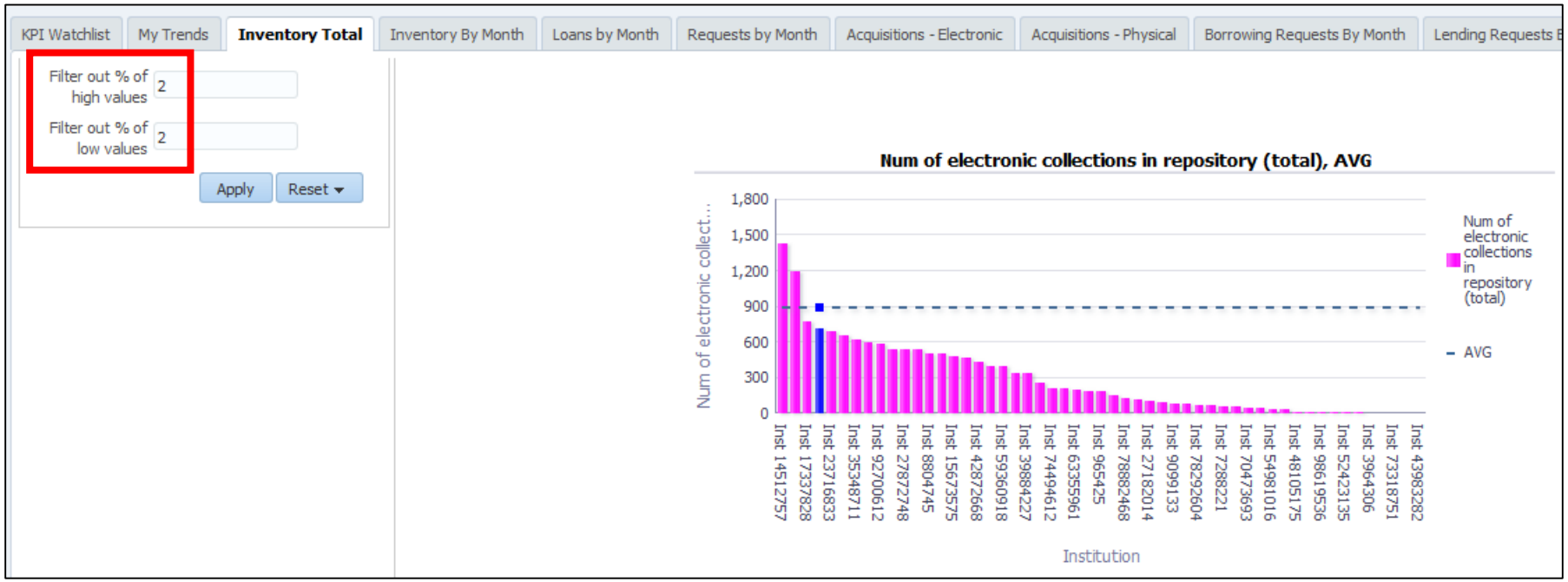
Inventory Total

- This is the graph ‘Num of electronic collections in repository (total), AVG’ in the ‘Inventory Total’ tab.



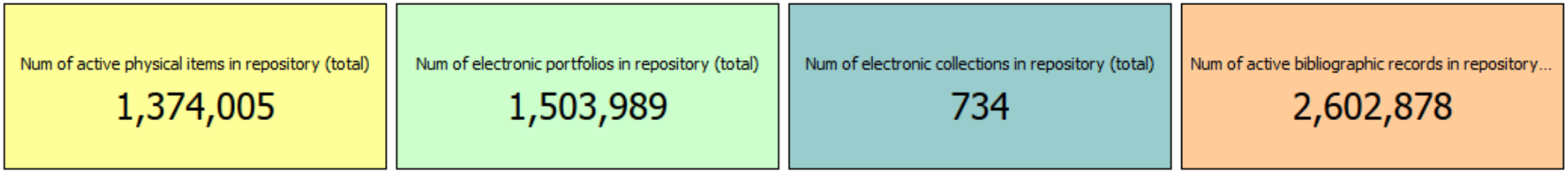
Inventory Total

- After removing the top and bottom 2% we have a more accurate picture



Inventory Total

- The data also appears at the top of the dashboard in performance tiles



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Benchmark Analytics - Inventory Total by month

- The Inventory Total by month tab allows the institution to compare what was added to his inventory with other institutions
- At the current time this includes:
  - Number of bibliographic records in repository (by month)
  - Number of electronic collections in repository (by month)
  - Number of electronic portfolios in repository (by month)
  - Number of physical items in repository (by month)

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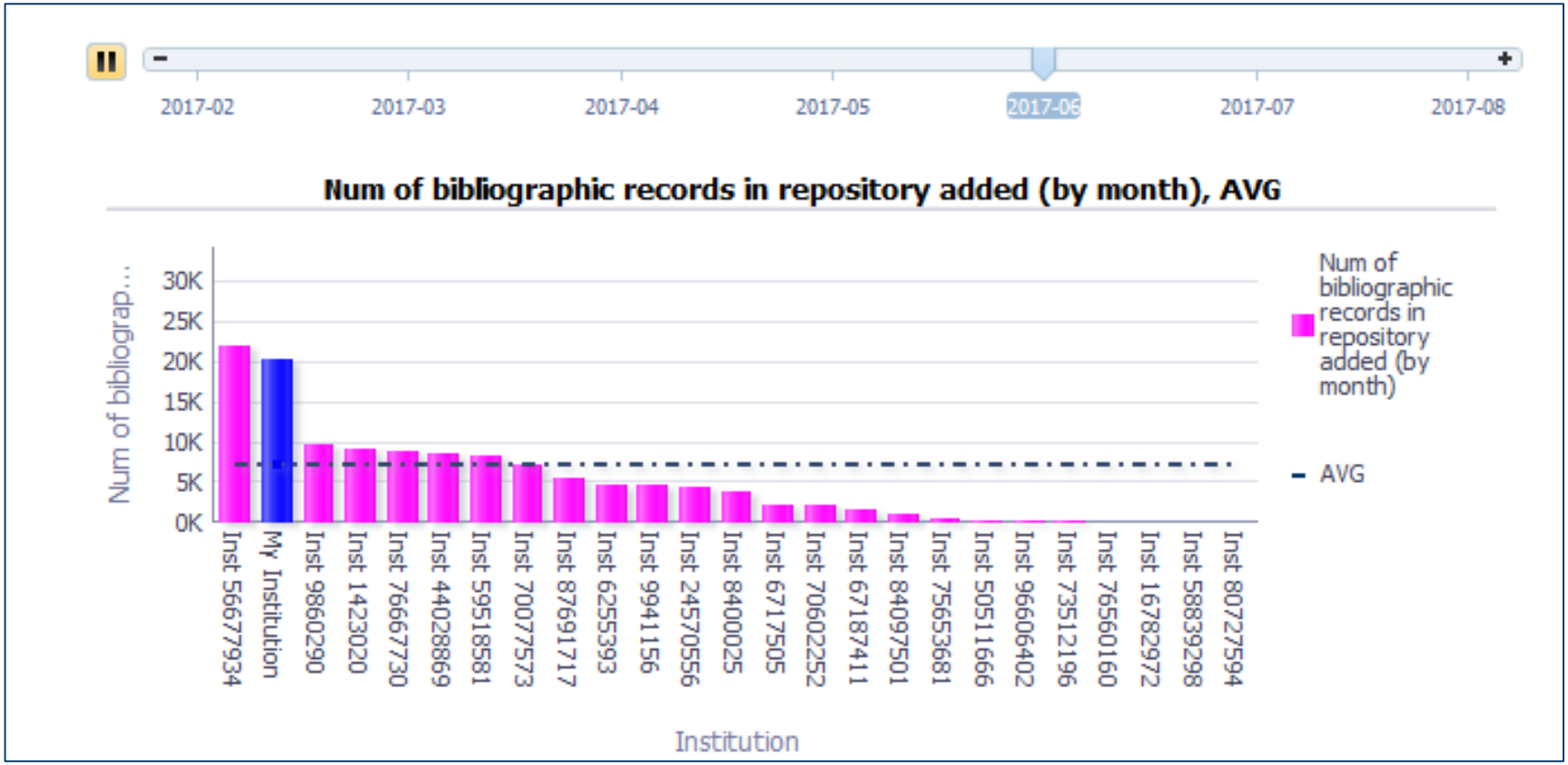
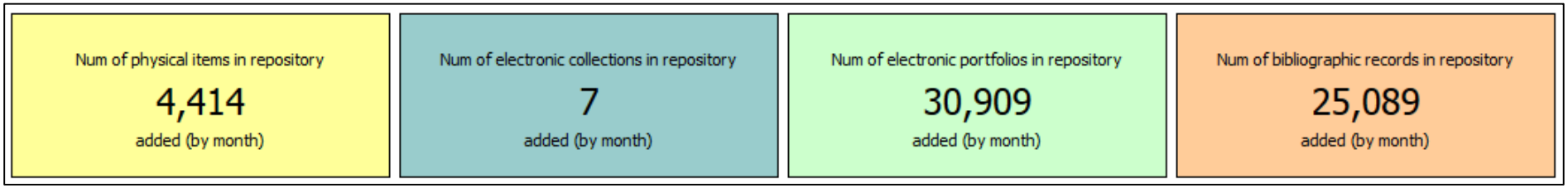
Benchmark Analytics - Inventory Total by month

- The chosen times appearing can be “played” on the slide bar on top showing the changes over the time period



Benchmark Analytics - Inventory Total by month

- The data also appears at the top of the dashboard in performance tiles.
- Here we have the average amounts added per month for the specified time period



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Benchmark Analytics - Loans by Month

- The Loans by Month tab allows the institution to compare its fulfillment loans with other institutions
- At the current time this includes:
  - Number of loans (by month)
  - Number of late returns (by month)

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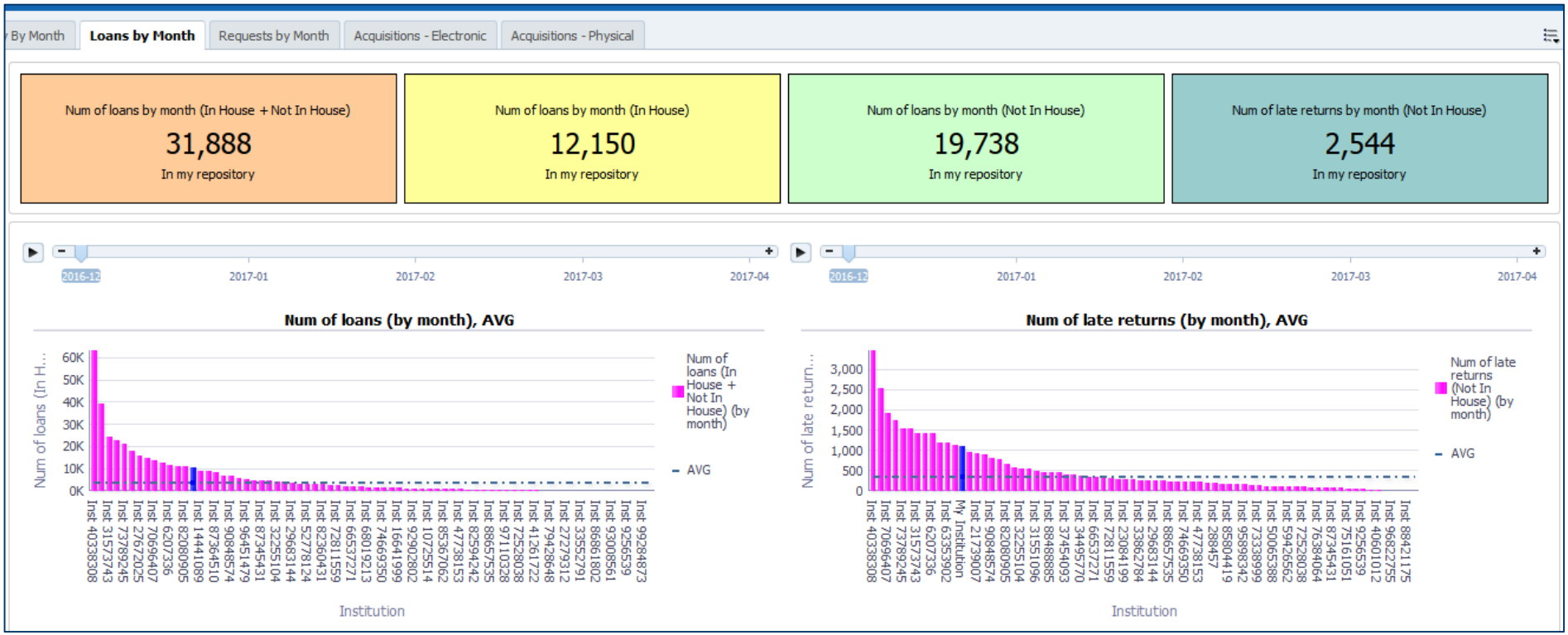
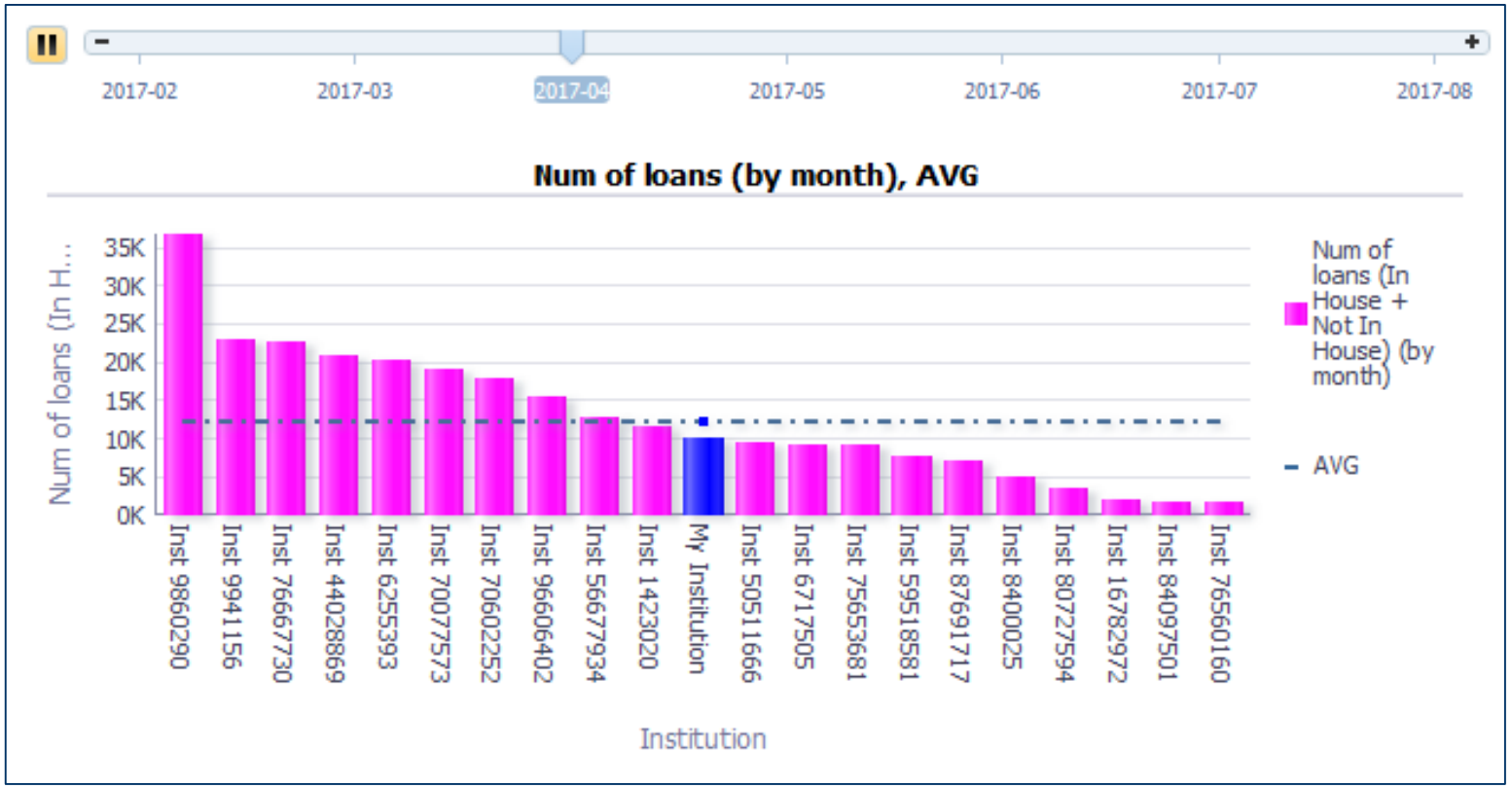
Benchmark Analytics - Loans by Month



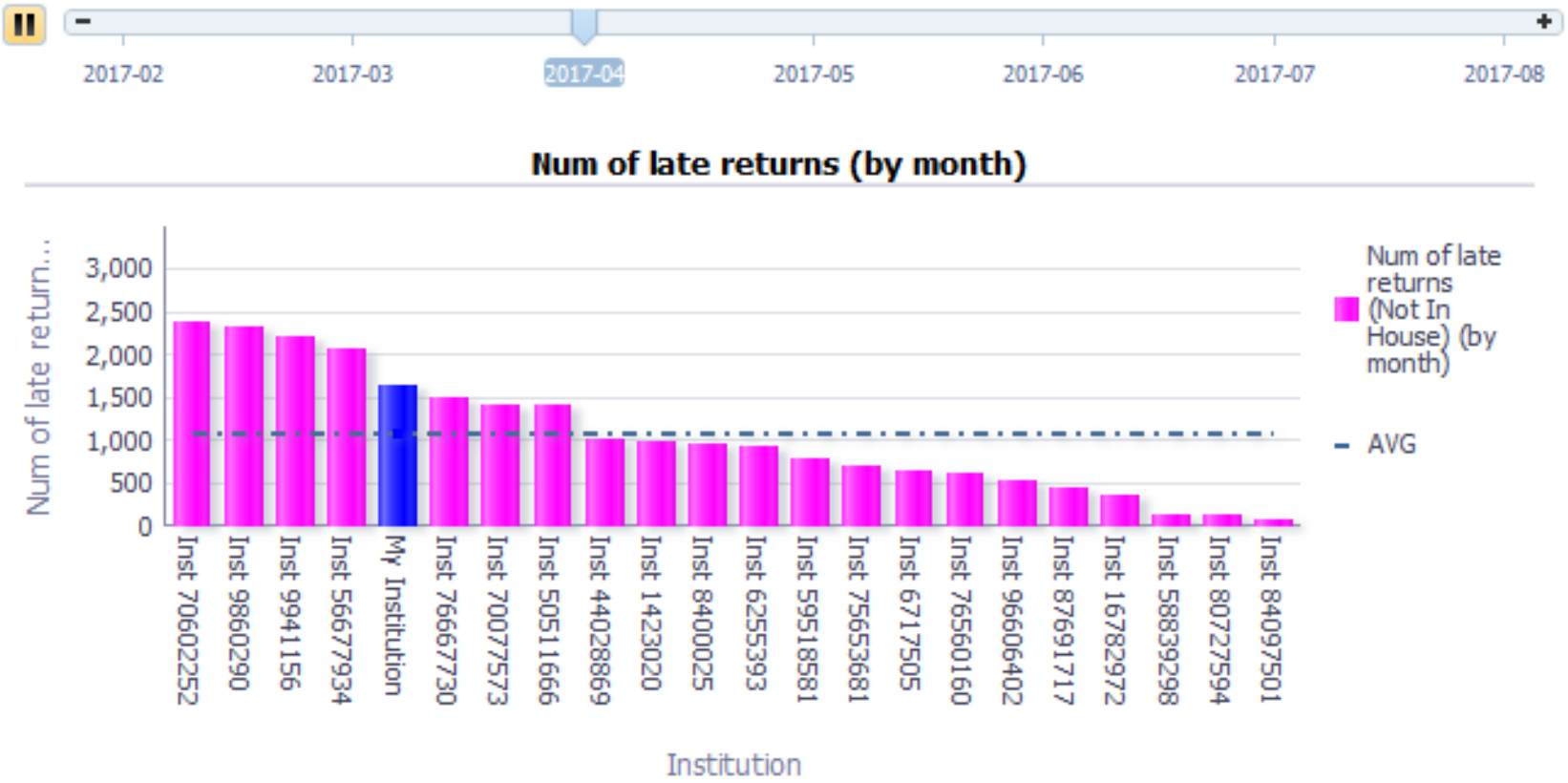
Benchmark Analytics - Loans by Month

- The chosen times appearing can be “played” on the slide bar on top showing the changes over the time period
- Here is the number of loans per month per institution



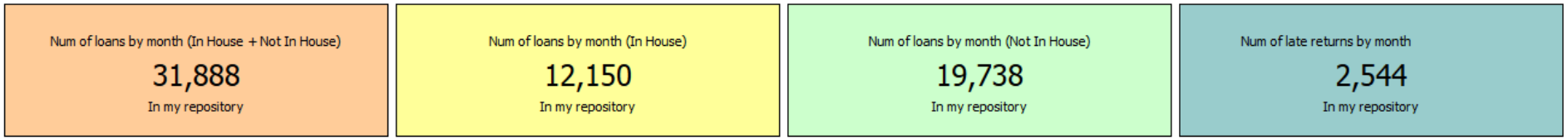
Benchmark Analytics - Loans by Month

- Here is the number of late returns per month per institution



Benchmark Analytics - Loans by Month

- The data also appears at the top of the dashboard in performance tiles



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Benchmark Analytics - Requests by Month

- The Requests by Month tab allows the institution to compare its fulfillment requests with other institutions

- At the current time this includes:
  - Number of patron physical item requests created (by month)
  - A detailed table including
    - Number of patron physical item requests created (by month)
    - Number of patron physical item requests rejected (by month)
    - Number of patron physical item requests rejected by patron (by month)
    - Number of patron physical item requests rejected by library (by month)

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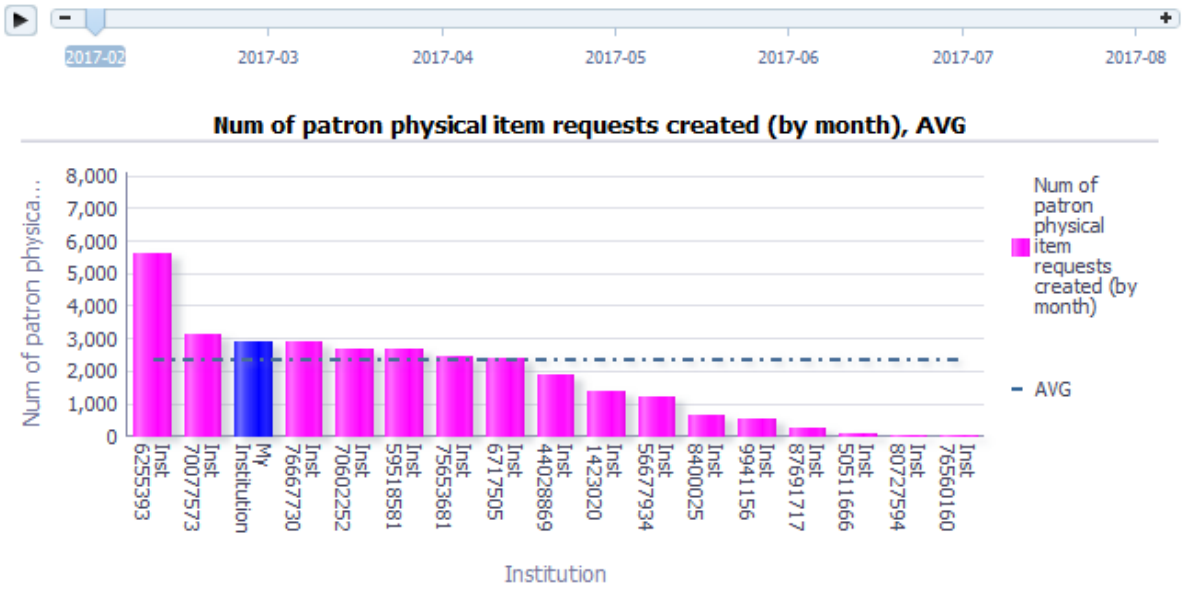
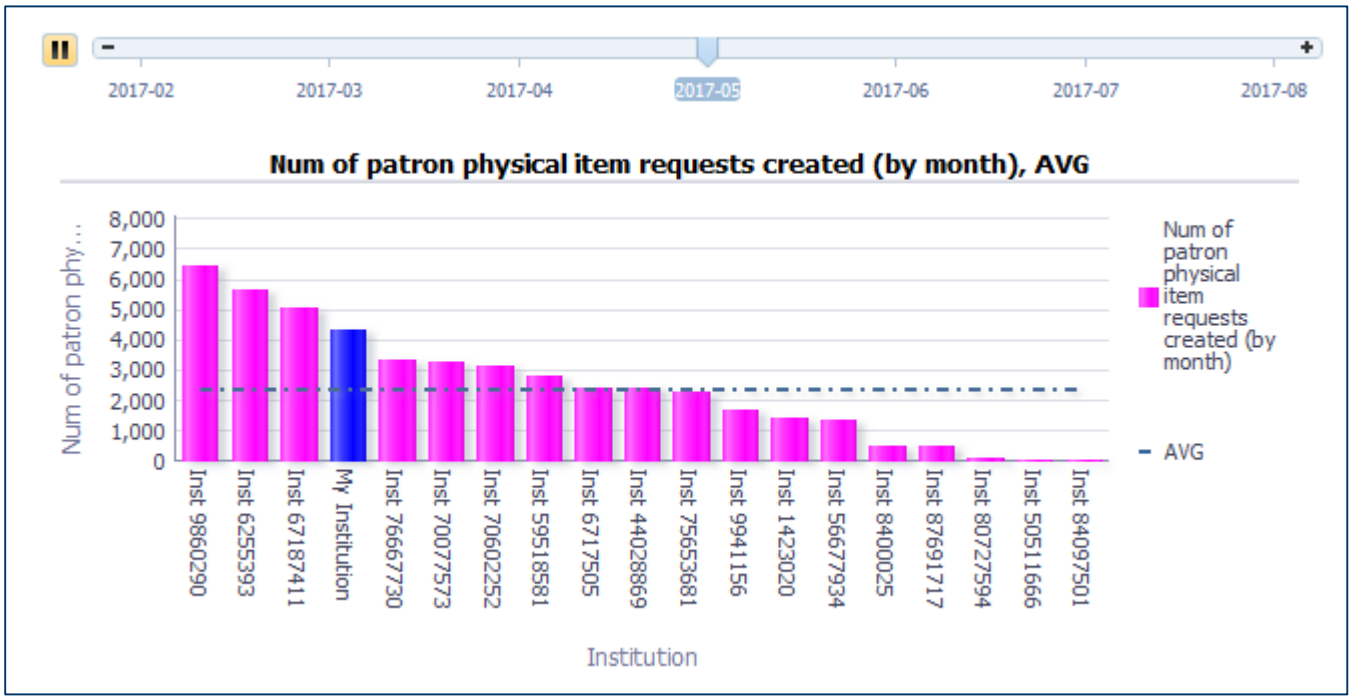
Benchmark Analytics - Requests by Month

Num of patron physical item requests (by month)	Num of patron physical item requests (by month)	Num of patron physical item requests (by month)
2,422	660	64
rejected	rejected by library	rejected by patron



Benchmark Analytics - Requests by Month

- The chosen times appearing can be “played” on the slide bar on top showing the changes over the time period
- Here is the patron physical item requests created per month per institution



Benchmark Analytics - Requests by Month

- Here is table showing the data with additional measures

Institution	Num of patron physical item requests created (by month)	Num of patron physical item requests rejected (by month)	Num of patron physical item requests rejected by patron (by month)	Num of patron physical item requests rejected by library (by month)
Inst 96614676	10,126	710	101	149
Inst 66131130	7,809	818	10	11
Inst 25290108	5,523	1,220	7	75
Inst 56773351	4,958	826	21	134
Inst 53859913	4,311	931	19	63
My Institution	**2,982**	**287**	**9**	**59**
Inst 59507251	2,945	262	11	42
Inst 37394907	2,441	214	9	105
Inst 5584154	2,439	807	9	81
Inst 81375611	2,295	217	1	58
Inst 34286026	1,406	267	4	29
Inst 52033242	1,365	189	2	34
Inst 97407214	1,327	39	5	13
Inst 81159948	989	219	7	15
Inst 31722692	790	108	5	27

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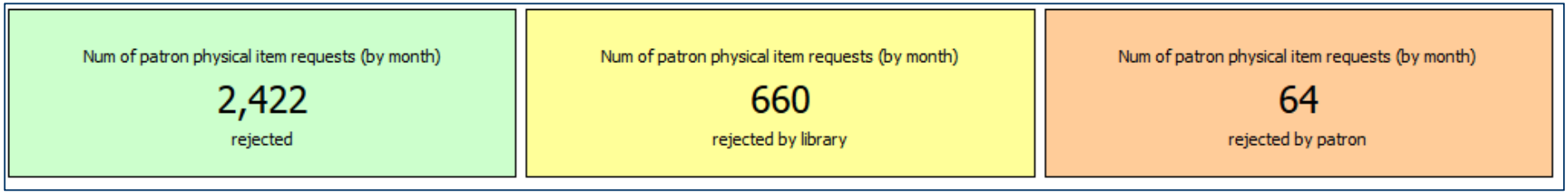
Benchmark Analytics - Requests by Month

- The data also appears at the top of the dashboard in performance tiles



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Benchmark Analytics - Acquisitions - Electronic

- The Acquisitions – Electronic tab allows the institution to compare its acquisitions measures regarding electronic collection and portfolios with other institutions
- At the current time this includes:
  - Electronic Portfolio - Avg days from POL creation to portfolio activation

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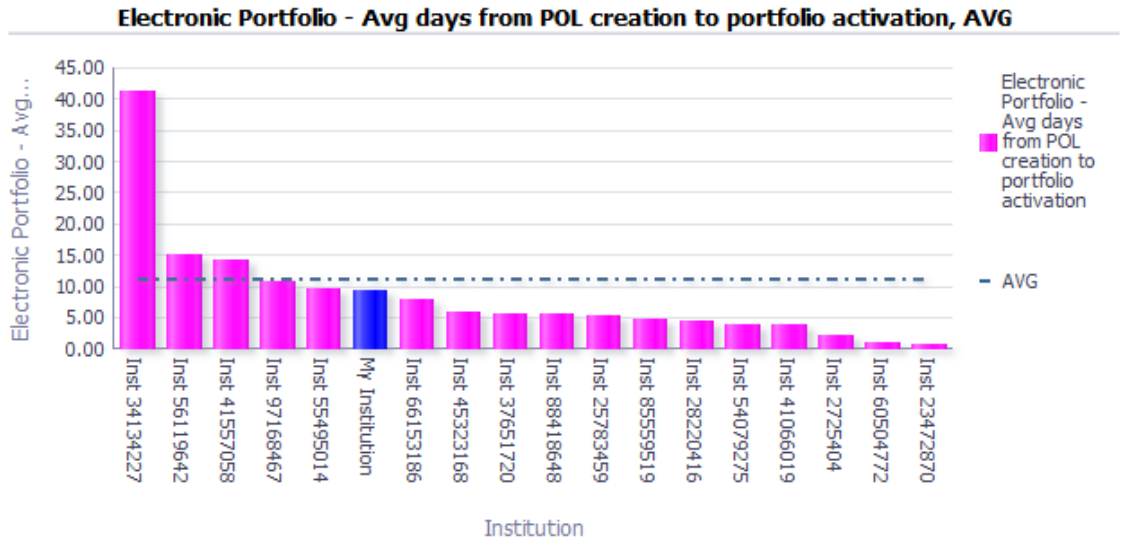
Benchmark Analytics - Acquisitions - Electronic

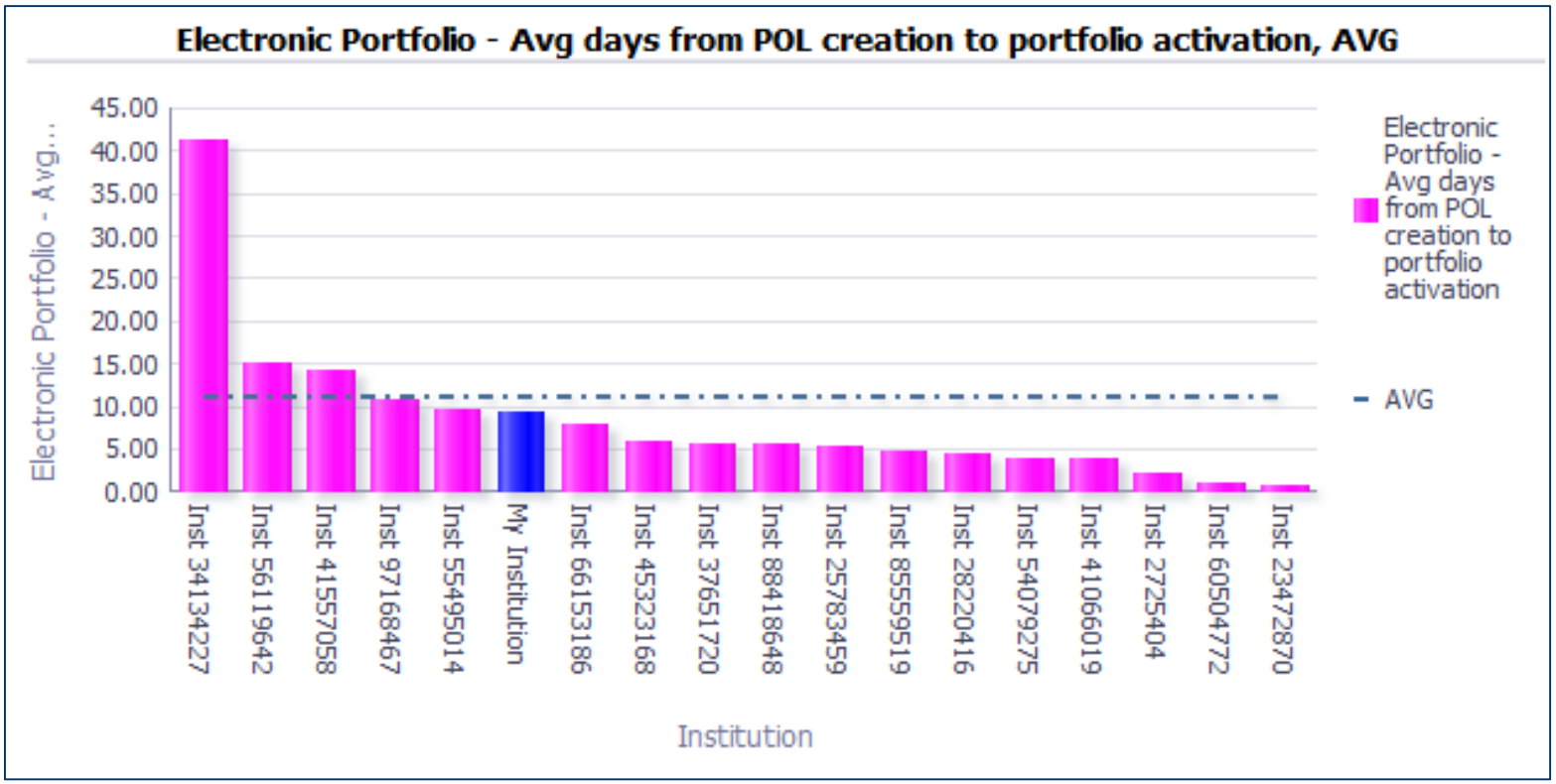
ventory By Month | Loans by Month | Requests by Month | **Acquisitions - Electronic** | Acquisitions - Physical | Borrowing Requests By Month | Lending Requests By Month | Usage By COL »

Electronic Portfolio - Avg days -	Electronic Portfolio - Avg days -	Electronic Portfolio - Avg days -
9.45	0.95	8.50
from POL creation to portfolio activation	from POL creation to sent	from POL sent to portfolio activation



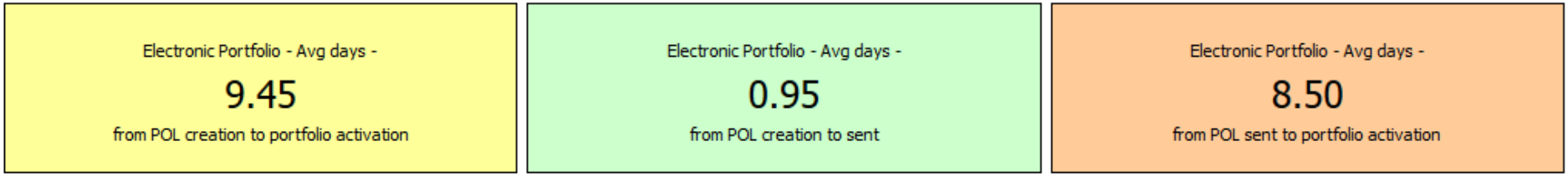
Benchmark Analytics - Acquisitions - Electronic

- Here the institution can see that regarding the time it takes from ordering electronic inventory to getting it activated he is a little under (faster than) the average.



Benchmark Analytics - Acquisitions - Electronic

- The data also appears at the top of the dashboard in performance tiles



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Benchmark Analytics - Acquisitions - Physical

- The Acquisitions – Physical tab allows the institution to compare its acquisitions measures regarding the ordering of physical one-time inventory with other institutions
- At the current time this includes:
  - Physical - Avg days from POL creation to item arrival

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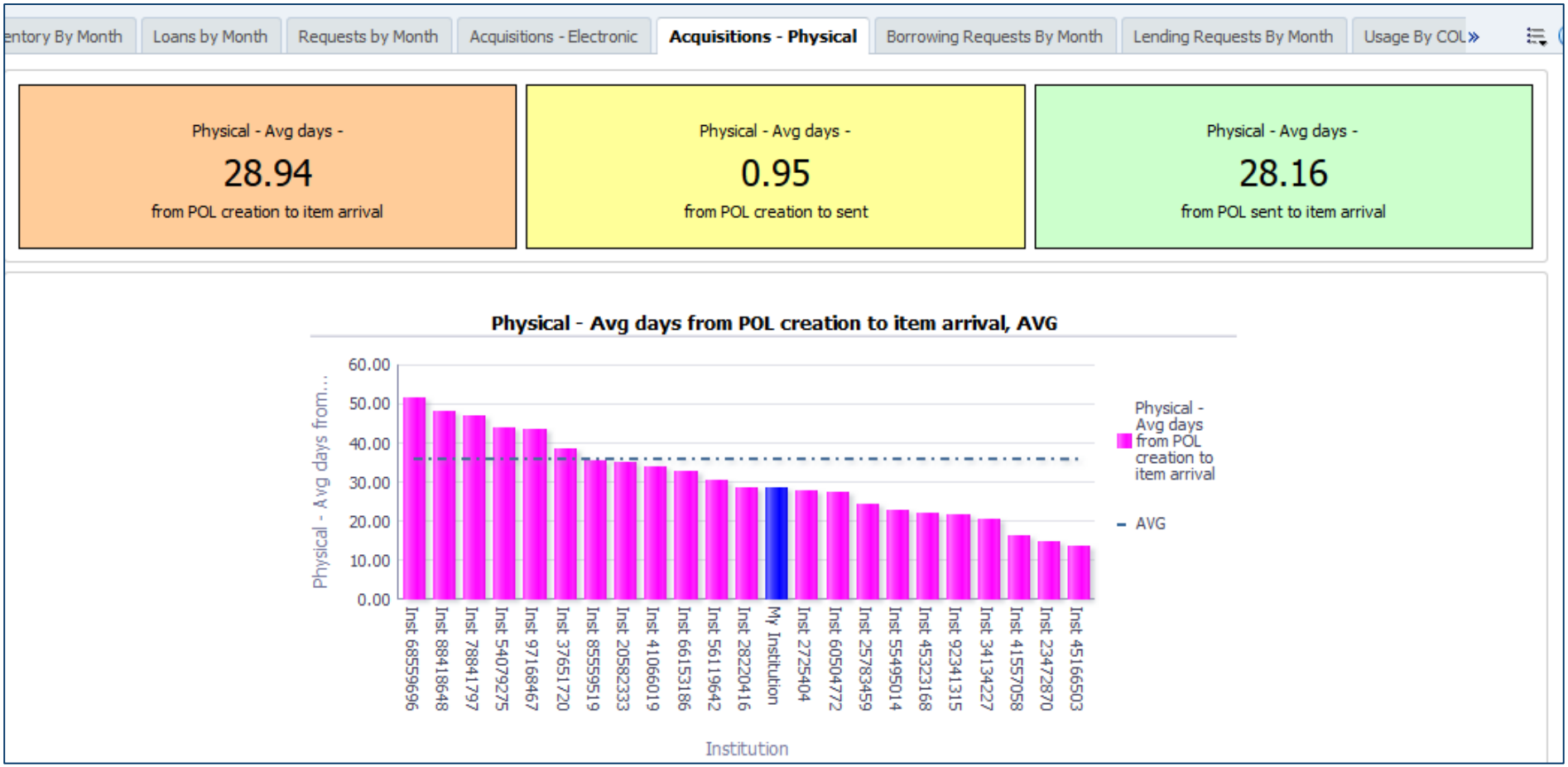
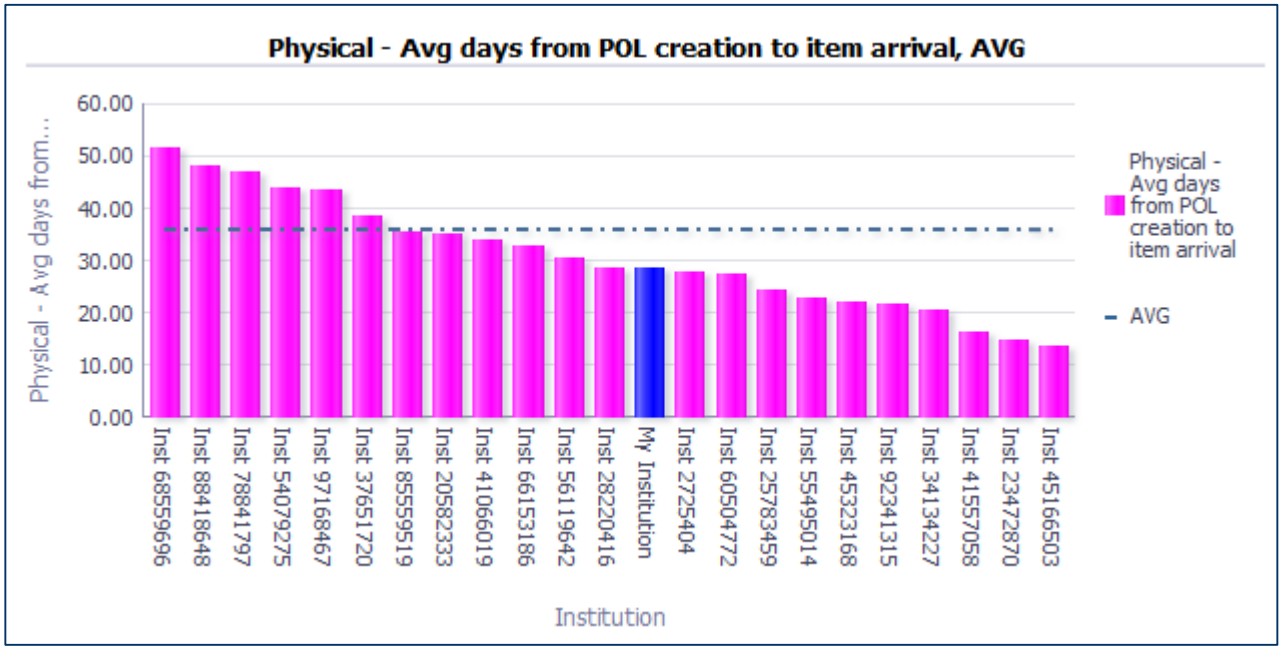
Benchmark Analytics - Acquisitions - Physical



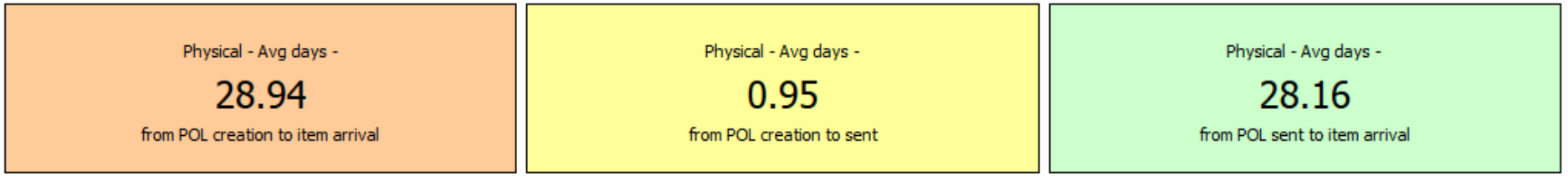
Benchmark Analytics - Acquisitions - Physical

- Here the institution can see that regarding the time it takes from ordering physical inventory to having it arrive it is faster than (it takes less days) the average.



Benchmark Analytics - Acquisitions - Physical

- The data also appears at the top of the dashboard in performance tiles



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Benchmark Analytics – Usage by COUNTER reports

- It is also possible to compare the usage of electronic resources as reported via COUNTER reports
- At the current time this includes:
  - Journal Usage (in previous year)
  - Book Searches (in previous year)
  - Database Views (in previous year)
  - Database Searches (in previous year)
  - Number of Unique Platforms (in previous year)
  - Number of CPOUNTER reports (in previous year)

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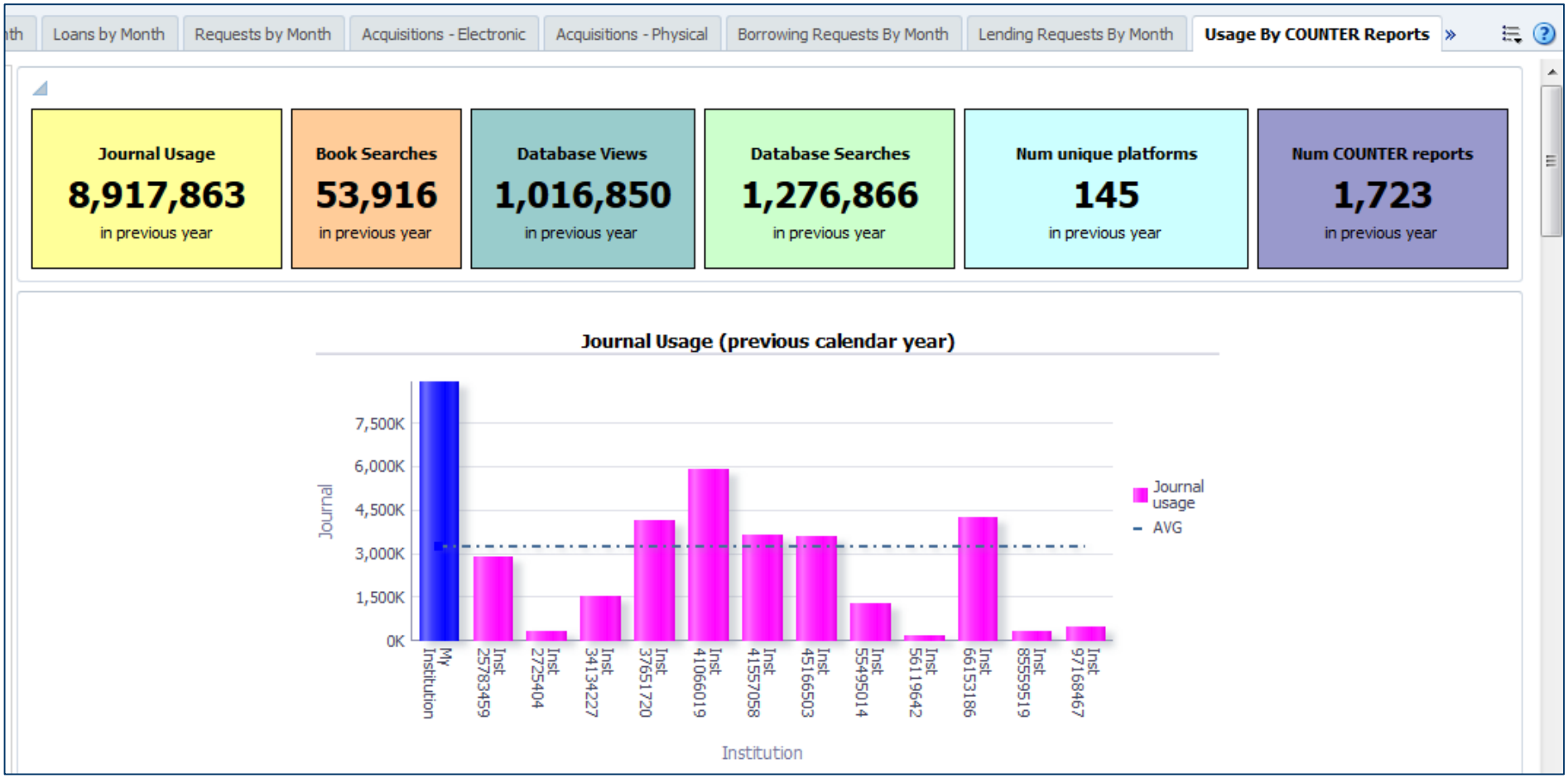
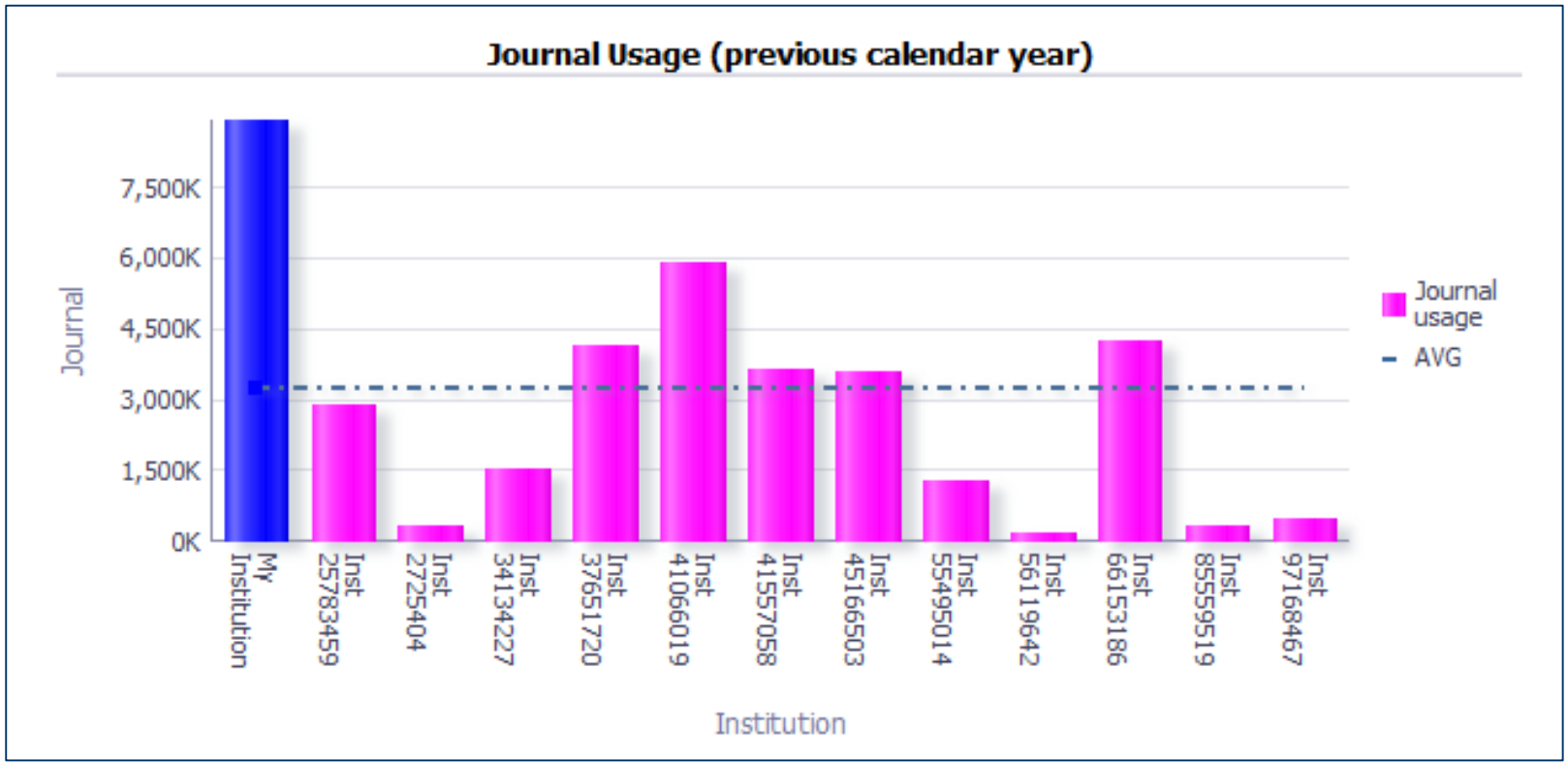
Benchmark Analytics – Usage by COUNTER reports



Benchmark Analytics – Usage by COUNTER reports

- Here the institution can see that they have higher than average Journal Usage (JR1)



Benchmark Analytics – Additional planned KPIs

- In addition to the KPIs shown here, there are plans to roll out several additional KPIs.
- These include the following:

Area	KPI
Alma Staff	Number of staff logins - in the last year
Claiming	Percentage of orders that have to be claimed - orders sent in the last year
Cost Per Use	Average Cost Per Use - in the last year (from COUNTER reports is Cost Usage subject area)
Course Reserves	Number of items in Course Reserves location - added - in last year
Digital Inventory	Number of digital objects - added- in the last year
Digital Inventory	Number of digital objects - total
Discovery	Number of Journal/DB views - in the last week
Discovery	Number of searches - in last week
Discovery	Number of ServicePage/Uresolver sessions - in the last week
Discovery	Number of sessions - in last week

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Benchmark Analytics – Additional planned KPIs

Area	KPI
Fees	Money collected from patrons - total - in the last year
Fees	Money owed by Patrons - total
Fees	Money waived by staff - total - in the last year
Fees	Percentage of patrons that have blocks
Fees	Percentage of patrons that owe money
Invoicing	Average handling time for invoices - From creation until closure - invoices created in the last year
Invoicing	Average handling time for invoices - From creation until payment - invoices created in the last year
Invoicing	Average handling time for invoices - From creation until sent for payment - invoices created in the last year
Resource Sharing Borrowing Requests	Average supply time for borrowing (outgoing ILL) requests - in the last year
Resource Sharing Borrowing Requests	Number of borrowing (outgoing ILL) requests placed - in the last year
Resource Sharing Lending Requests	Number of lending (incoming ILL) requests - in the last year
Resource Sharing Lending Requests	Percentage of lending (incoming ILL) requests that could not be filled - in the last year
Transit	Average time in transit - in the last year

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Agenda

1. Introduction
2. Benchmark Analytics
3. **Comparative Collection Analytics**

Comparative Collection Analytics - Overview

- The overall goal and idea of the Comparative Collection Analytics is for the institution to be able to understand the collection relative to a set of peer institutions
- Peer institutions have agreed (mutually) to work together in a known and identified manner

- This will enable the institution to, for example
  - Create weeding (withdrawal) plans
  - Effectively create a collection development policy by knowing what subjects are held by other institutions which are my peers and thus accessible to my patrons.

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Comparative Collection Analytics

- Bibliographic and inventory data is compared with that of other predefined peer institutions.

- Example ‘queries’:
  - How much overall overlap is there between your collection and those of your peers?
  - How many of your items are unique among your set of predefined peers?
  - How old is your collection compared to those of your peers?

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Comparative Collection Analytics - Peer Institutions

- Typically the “peer institutions” are institutions which
  - Are located in the same geographical area
  - Have resource sharing or other cooperative fulfillment policy agreements
  - May also have e-resource licensing and other acquisition cooperative programs
  - May engage in common digitization projects

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Comparative Collection Analytics - Peer Institutions

- In the example here the “Sarah Khan Technical College” has five peers:
  - John Smith University
  - City College
  - Yilis Institute
  - State Technical College
  - Central Park College

- These peers all form a group of six institutions which collaborate with each other on various levels.
- For example patrons in each of the six institutions and can loan items from the other five institutions.

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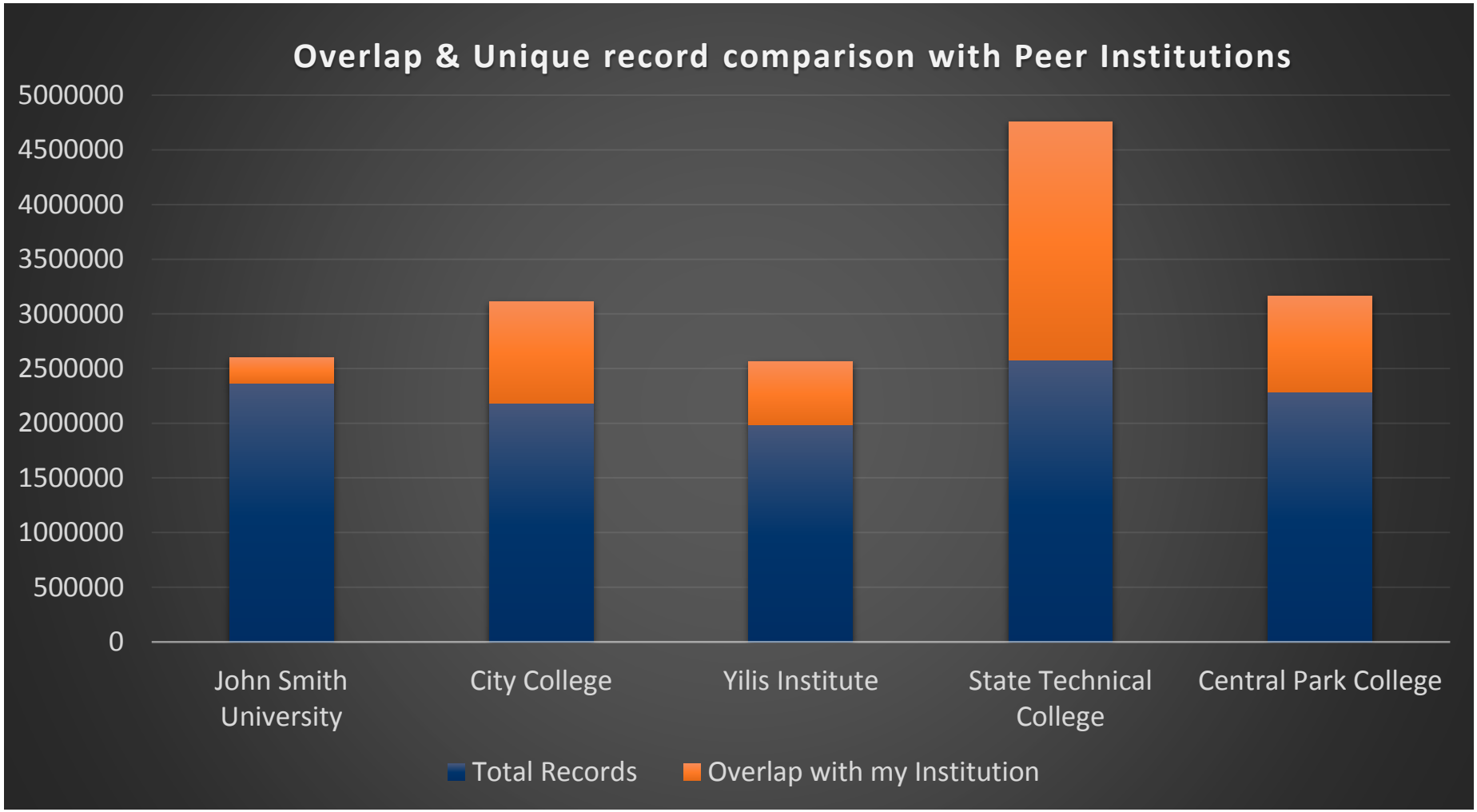
Comparative Collection Analytics – General Overlap



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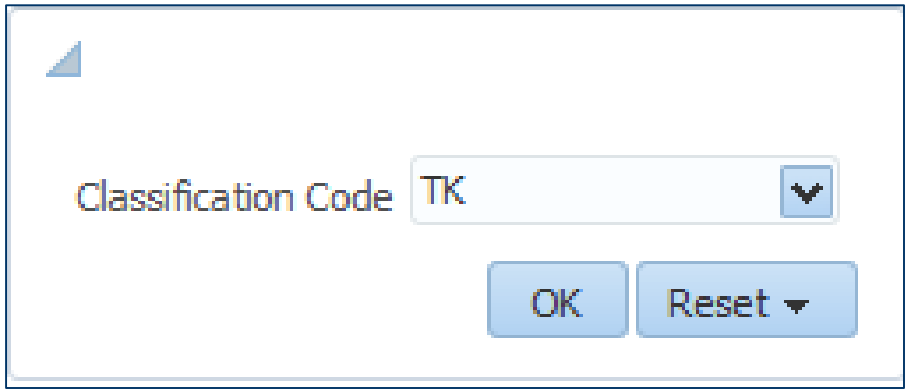
Comparative Collection Analytics – LC Classification Overlap

- It will also be possible to query which institutions have “how many” bibliographic records with particular call numbers or subjects.

- Example: TK is the LC Classification code for Electrical Engineering



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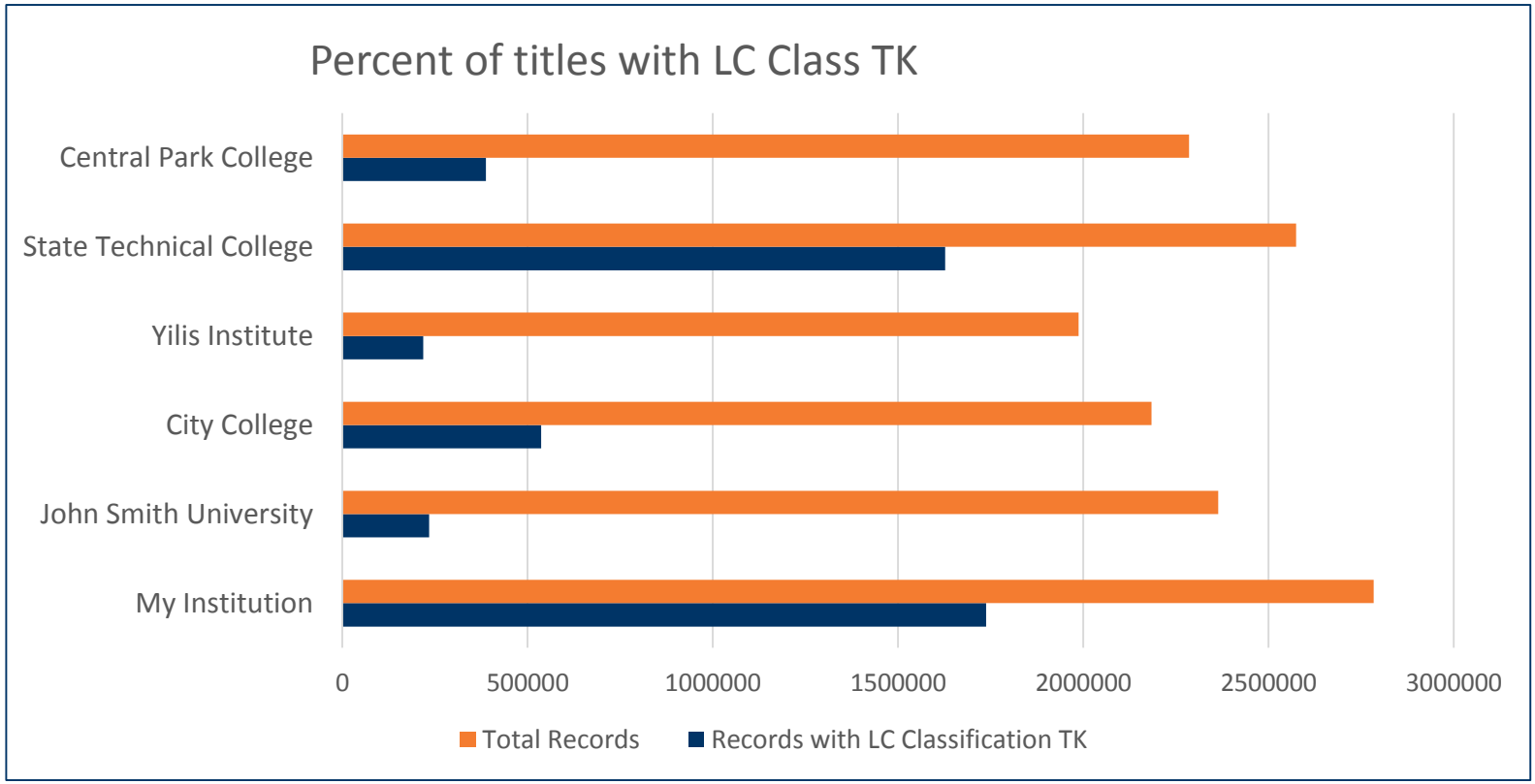
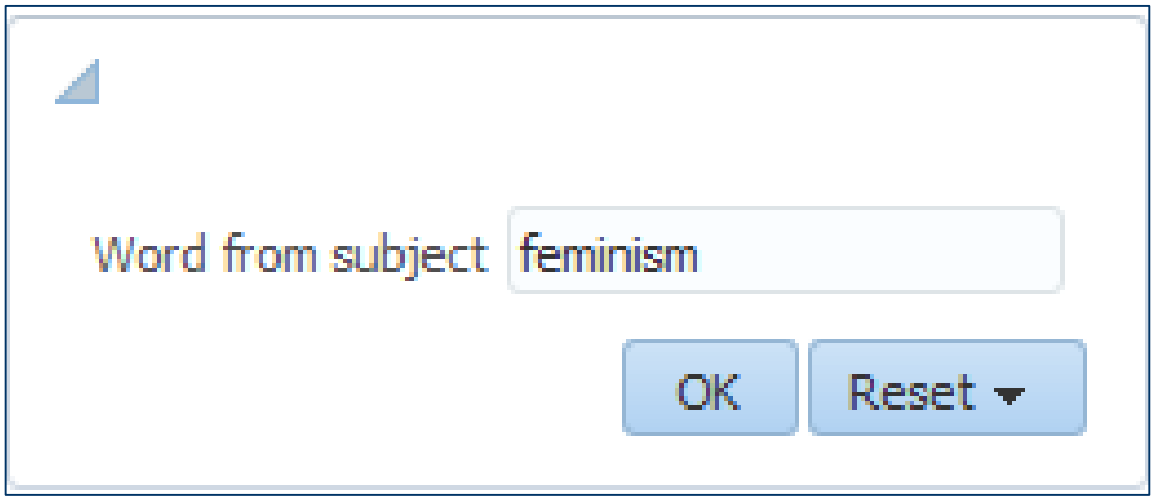
Comparative Collection Analytics – LC Classification Overlap

- Here we clearly see that "My Institution" and "State Technical College" both have many records (more than half of total) which are for “Electrical Engineering”

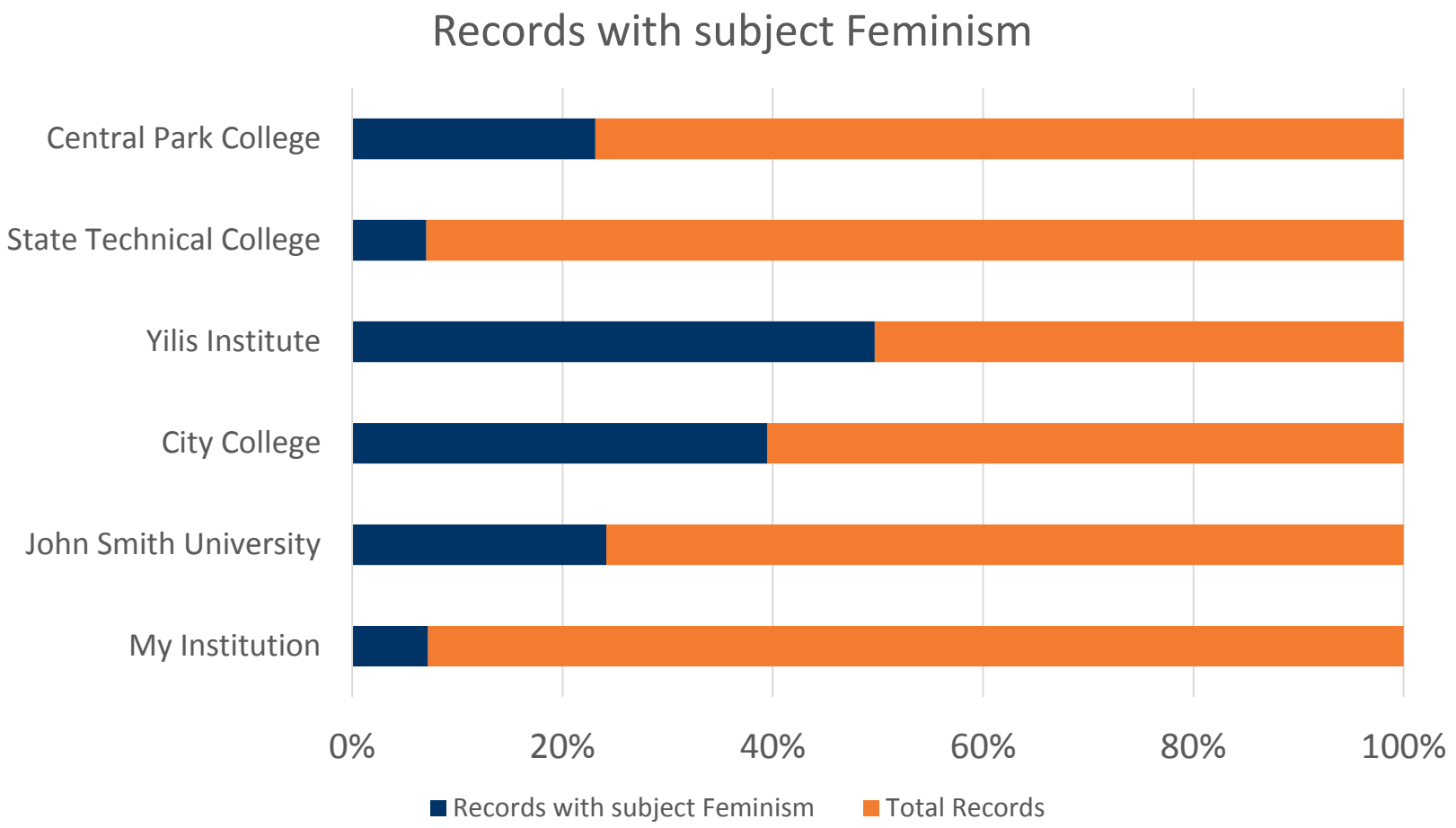


Comparative Collection Analytics – Subject Overlap

- On the other hand … if we compare the institutions on “word from subject = feminism” …

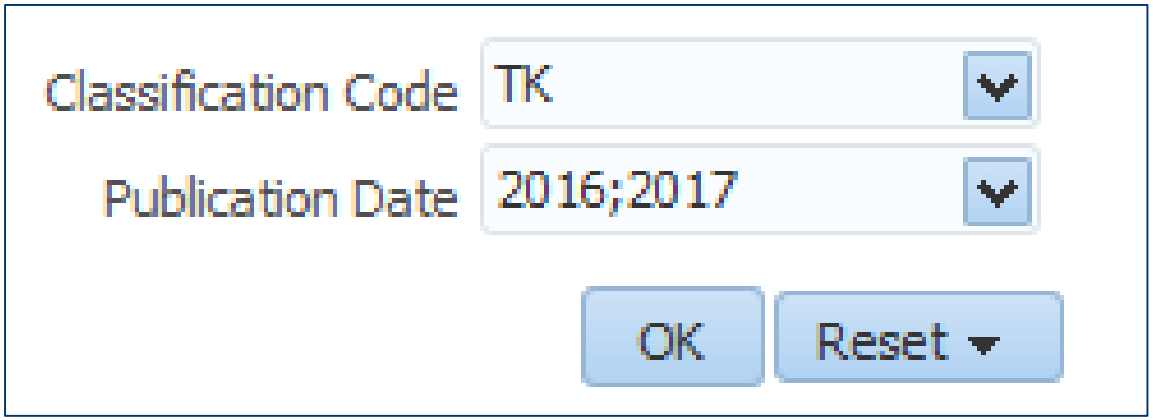


Comparative Collection Analytics – Subject Overlap



Comparative Collection Analytics – LC and Year Overlap

- There are some cases where it is important to also be able to filter by year.
- For example we previously saw that both "My Institution" and the "State Technical College" have a lot of material with LC Category “TK” which is “Electrical Engineering”.
- We may further want to know how much of that material is from the last two years.



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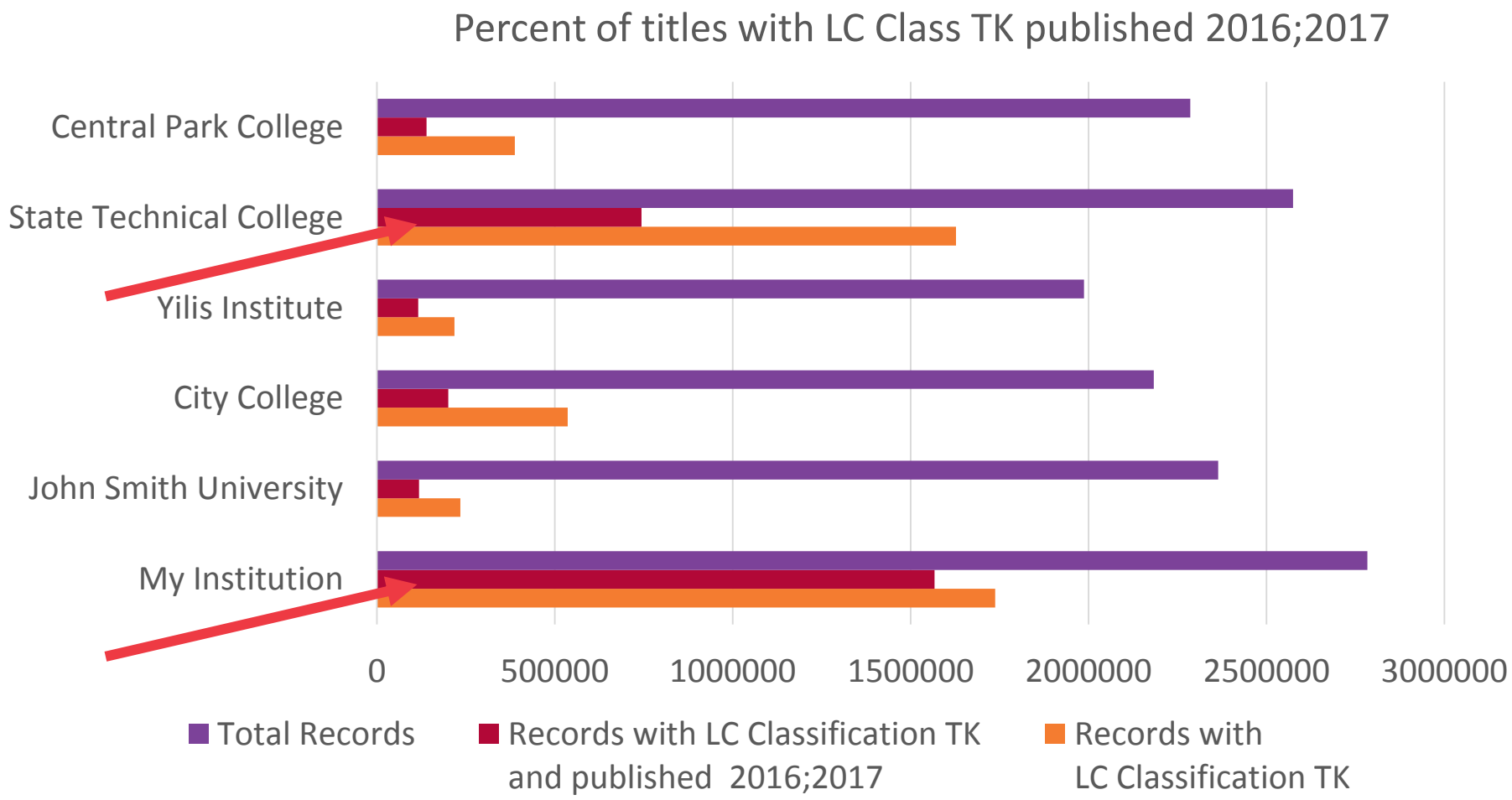
Comparative Collection Analytics – LC and Year Overlap

- Here are the results in graph format



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