# FROM NUMBERS TO POLICY: HOW TO USE ALL YOUR DATA 

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## WHAT WILL BE COVERED

What data we collect.
How we get it.
What it all means.


## TYPES OF STATISTICS

System (Voyager) generated
Circulation statistics
$\times$ Renewals
$\times$ Reserves
$\times$ By patron type
$\times$ By item type
Courtesy Cards Issued OPAC searches
Human collected
Gate counts
Floor counts
Desk questions


## WHERE DO WE START?

Problem/Question?
Is our collection actually being used? What is a normal/average level of use?
Go looking for data.
We look at our peers
We look for standards


Define our data and how we collect it.

## STANDARDS

## NISO (National Information Standards Organization)

## What is a circulation?

"The total annual circulation of all library materials of all types, including renewals. Note: Count all materials in all formats that are charged out for use outside the library. Interlibrary loan transactions included are only items borrowed for users."

ANSI/NISO z39.7-2004: Information Services and Use: Metrics \& statistics for libraries and information providers - Data Dictionary. Baltimore: NISO, 2004.
http://www.niso.org/dictionary/toc/appendices/appendixa/ (accessed June 4, 2010).

## WHY ARE STANDARDS IMPORTANT

Comparing Data outside your library/branch
Directors have annual surveys
ACRL/IPEDs surveys
$\times$ ACRL http://www.ala.org/ala/mgrps/divs/acrl/publications/trends/i ndex.cfm
$\times$ IPED - http://nces.ed.gov/surveys/libraries/
Again what is circulation?
Do you count at...
$\times$ Check out
$\times$ Check in

## VOYAGER CIRCULATION MODEL

| Transaction Check-out | Check-in |  |
| ---: | ---: | ---: |
| 1 | $4 / 3 / 2011$ | $4 / 10 / 2011$ |
| 2 | $4 / 5 / 2011$ | $5 / 10 / 2011$ |
| 3 | $5 / 10 / 2011$ | $6 / 1 / 2011$ |

Assume you run your stat

| Scenario 2 | Look at Circ_Archive_Trans Table |  |
| :--- | :--- | :---: |
| April Stats | Trans 1 | 1 |
| May Stats | None | 0 |
| Total |  | 11 of 3 |

Look at
Circ_Transacti
Scenario 1
ons Table
April Stats
May Stats
Trans 21

Total 22 out of 3 reports on the first day of the month and limit by check-out date.

| Scenar |  |  |
| :---: | :---: | :---: |
| - 3 | Look at bo | th tables |
|  | Circ_Trans actions | Circ_Archive Trans |
| April |  |  |
| Stats | Trans 2 | Trans 1 |
| May |  |  |
| Stats | Trans 3 | None |
| Total |  |  |

## DATA MANAGER / GATEKEEPER

## Someone who...

understands the data and where it comes from controls the data (data integrity) tracks the changing definitions of the data


## WHAT DOES THIS ALL MEAN?

## Circulation

Any time our overall stats drop we discuss ways to improve circulation in our monthly staff meetings. Set a level at which you should be concerned and ready to take more immediate action (10\% drop)
$\times$ Collect more detailed stats
Courtesy Cards
Increasing service to outside constituents is part of our strategic plan and fits with the University's strategic goals

## WHAT DOES THIS ALL MEAN?

## OPAC Searches

Use for decisions regarding the design of your website and OPAC interface

Helpful with information literacy research http://documents.el-una.org/459/1/ELUNA2010Liu.pdf
\% Failed Searches



## METHODS OF COLLECTION - HUMANS

## Floor Count

Students (or staff) walk the floors of the library every hour counting the number of people on each floor

Gate Count
Staff and students collect the numbers off the gate counters 4 times a day

Desk Questions
Staff and students tally the questions they receive at the desk by hour and question type

## HUMAN COLLECTED - FLOOR COUNT

Floor Count Statistics

| Date | First Floor | Computer Lab | 2nd Floor | 3rd Floor | 4th Floor | 5th Floor |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| $8: 00: 00 \mathrm{AM}$ |  |  |  |  |  |
| ---: | :--- | :--- | :--- | :--- | :--- |
| $9: 00: 00 \mathrm{AM}$ |  |  |  |  |  |
| $10: 00: 00 \mathrm{AM}$ |  |  |  |  |  |
| $11: 00: 00 \mathrm{AM}$ |  |  |  |  |  |
| $12: 00: 00 \mathrm{FM}$ |  |  |  |  |  |
| $1: 00: 00 \mathrm{FM}$ |  |  |  |  |  |
| $2: 00: 00 \mathrm{FM}$ |  |  |  |  |  |
| $3: 00: 00 \mathrm{FM}$ |  |  |  |  |  |
| $4: 00: 00 \mathrm{FM}$ |  |  |  |  |  |
| $5: 00: 00 \mathrm{FM}$ |  |  |  |  |  |
| $6: 00: 00 \mathrm{FM}$ |  |  |  |  |  |
| $7: 00: 00 \mathrm{FM}$ |  |  |  |  |  |
| $8: 00: 00 \mathrm{FM}$ |  |  |  |  |  |
| $9: 00: 00 \mathrm{FM}$ |  |  |  |  |  |
| $10: 00: 00 \mathrm{FM}$ |  |  |  |  |  |
| $11: 00: 00 \mathrm{FM}$ |  |  |  |  |  |
| Closing walk thru |  |  |  |  |  |

Flease count the number of people on each floor.
Do not count:
Feople in offices, the Archives Reading Room, or the 2nd Floor Conference Room/Classroom

## Data Collection Sheet

Information<br>Collected:

-Date
-Hourly counts for each floor plus the computer lab

## HUMAN COLLECTED - GATE COUNT

Printed Spreadsheet
Includes numbers for both Gates
Data recordings at:
Opening
$1 / 2$ hour after opening
1 hour before closing
15 minutes before closing
Closing


## HUMAN COLLECTED - DESK QUESTIONS

Desk Questions


## HUMAN COLLECTED - PROBLEMS

x Inconsistent Collection

+ Data doesn't get entered for every collection point

Forget
Not enough students/staff at that time

Handwriting can be hard to read

## HUMAN COLLECTED - PROBLEMS

## Data entry

Every piece of data has to be entered into a spreadsheet by hand


## HUMAN COLLECTION - SOLUTIONS

## Inconsistent collection

Use estimates and averages
Excel's average function does not count null data
$x=$ AVG(cell1, cell2, cell3...)
$\times$ Leave cells empty when no data was collected
$\times$ Enter a zero when there were no people

## HUMAN COLLECTION - SOLUTIONS

Data entry
Set aside time monthly to enter figures
Assign a student or staff member to help
Do the data manipulation and analysis yourself

## HUMAN COLLECTED - USES

Reducing hours due to staff shortage Jan 2011
Looked at October and November data
Floor Count - heaviest use dropped by 10pm
Desk Questions - after 10pm made up less than $4 \%$ of daily questions for October as well as
November

## FLOOR COUNT TREND - OCTOBER

October Averages by Day of the Week


Floor Count Data

Heaviest usage

Fri-Sat<br>Ends by 6pm

Sun - Thurs
Ends by 10 pm

## FLOOR COUNT TRENDS - NOVEMBER

November Averages by Day of the Week


Floor Count Data

## Heaviest usage

Fri-Sat
Ends by 6pm

Sun - Thurs
Ends by 10 pm

Averages by Day of the Week Sundays Mondays Tuesdays Wed Thurs Friday Saturday

| Fall 2010 |  |  |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: | :--- |
| 7:30AM-9AM |  | 4.1 | 2.8 | 3.2 | 2.4 | 2.6 |
| 9AM-10AM |  | 4.0 | 2.6 | 3.5 | 2.9 | 2.1 |
| 10AM-11AM |  | 3.1 | 2.6 | 3.7 | 3.4 | 3.1 |
| 11AM-12PM |  | 2.8 | 3.3 | 2.6 | 4.2 | 3.2 |
| 12PM-1PM | 2.8 | 3.9 | 3.9 | 2.9 | 4.0 | 1.9 |
| 1PM-2PM | 1.8 | 3.0 | 4.2 | 2.9 | 3.5 | 2.7 |
| 2PM-3PM | 2.0 | 3.0 | 3.3 | 3.3 | 4.5 | 2.6 |
| 3PM-4PM | 2.7 | 2.4 | 4.2 | 3.0 | 4.7 | 3.4 |
| 4PM-5PM | 2.0 | 3.1 | 4.3 | 4.2 | 3.0 | 2.6 |
| 5PM-6PM | 3.4 | 2.6 | 3.5 | 2.4 | 2.8 | 2.5 |
| 6PM-7PM | 2.3 | 3.4 | 3.2 | 1.7 | 2.3 | 2.9 |
| 7PM-8PM | 2.7 | 2.5 | 2.3 | 3.7 | 2.4 | 3.5 |
| 8PM-9PM | 2.7 | 2.3 | 3.1 | 3.0 | 3.2 | 5.0 |
| 9PM-10PM | 2.4 | 1.8 | 2.3 | 1.5 | 2.8 |  |
| 10PM-11PM | 2.2 | 2.6 | 2.5 | 1.5 | 1.7 |  |
| 11PM-12AM | 2.7 | 1.6 | 1.6 | 1.0 | 1.0 |  |

## Desk Question Data

Heaviest usage Mon-Thurs<br>Ends by 10 pm

Some additional usage 10-11pm Mon and Tues

## STAFF SHORTAGE HOURS

Regular Hours - Total 134.5 hrs
$\times$ Sunday

+ Noon to midnight (12 hours)
* Monday - Thursday
+ 7:30 am - midnight (16.5 hours)
* Friday
+ 7:30 am - 7 pm (11.5 hours)
* Saturday
+ $10 \mathrm{am}-7 \mathrm{pm}$ (9 hours)

January Hours - Total 108.5 hrs

* Sunday
+ 2pm - 10pm (8 hours - single staff member with paid lunch)
* Monday - Thursday
+ 7:30 am - 10 pm (14.5 hours)
* Friday
$+7: 30 \mathrm{am}-6 \mathrm{pm}$ (10.5 hours)
* Saturday
+ $10 \mathrm{am}-6 \mathrm{pm}$ (8 hours single staff member with paid lunch)


## HUMAN COLLECTED - USES

Constant requests for 2am daily closing time Floor Count data will give us a better picture of whether it will be sufficiently used
Currently only opening until 2 am during finals Still have to deal with the challenge of staffing that time period


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