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## A Less Sheet-y Methodology: An Application-based Approach to Leveraging ILL Transaction Data

Matt Hartman

Tim Kohn

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# A Less *Sheet-y* Methodology: An Application-based Approach to Leveraging ILL Transaction Data

Matt Hartman, Tim Kohn

# Who We Are

- Matt Hartman - Head of Resource Sharing
- Tim Kohn - Resource Sharing Coordinator





Stony Brook University

# Background



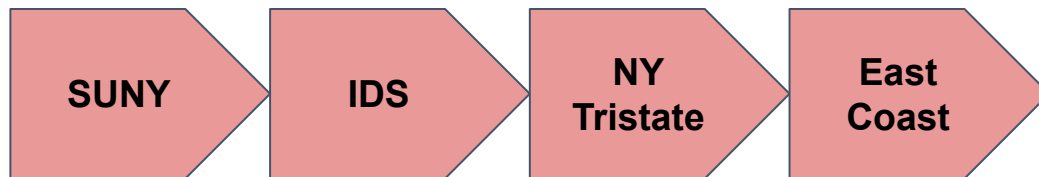
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**FAR  
BEYOND**



# How do we decrease turnaround times AND spend less money?

# Decision Making, ILL Loans



NAM	4	⋮	[ ]
	4		

## NAM - SUNY AT ALBANY LIBRS

Copies: 4 days to respond  
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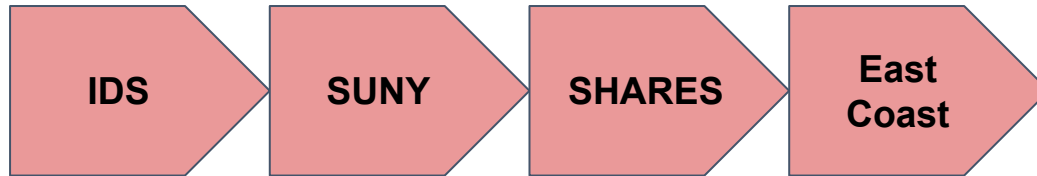
Loans: 4 days to respond  
Loan Fees: 0.00 - 15.00 USD

## Loan TaT

- 1 New Jersey
- 2 Connecticut
- 3 Massachusetts
- 4 Pennsylvania
- 5 Virginia
  
- 15 New York
  
- 32 Idaho
- 33 Florida



# Decision Making, ILL Articles



## Article TaT

- 1 Texas
- 2 Tennessee
- 3 Pennsylvania
- 4 Nevada
- 5 New York

4 FREELocal

XQM	4/4	ZOW	4/4	CTX	4/4	ZHM	4/20	WLU	4/4	ctl	4/4	ZIH	4/4	UCW	4/4
ZCU	8/8	STH	4/4	VYE	4/4	VVX	4/4	ZNC	4/8	YSM	4/4	ZHC	16/16	DXU	4/4
YDD	4/4	VVR	4/4	NYP	16/16	VYA	4/8	VJA	4/8	VDB	4/4	NJT	4/4	VSI	4/20
WCC	16/16	YFM	4/4												

4 FREEAST

vdh	4/4	YPM	4/4	YKU	4/4	YJA	4/4	VOC	2/2	VXT	4/4	VDN	4/4	zam	4/2
yom	2/4	zvm	4/4	VZJ	2/2	ZDG	2/4	yjl	4/4	ZBM	4/4	YAH	4/4	YLC	4/4
BUF	8/8	zlm	4/4	VXV	4/4	XBM	4/4	xjm	4/4	ZQM	4/4	VND	2/4	XMM	2/2
ZZY	4/4	YGM	4/4	YCM	4/4	YBM	4/4	XNC	4/4	yjm	4/4	YKJ	4/4	VZS	4/4
mbb	4/8	VQT	2/2												

4 FREEREST

IQU	4/4	AAA	2/4	CSJ	4/4	CS1	4/4	TXJ	4/4	CSA	4/4	NRC	4/4	WVU	4/4
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4 SHARESNE

DLM	4/4	COO	4/4	BXM	4/4	NJR	4/4	BMC	8/8	BOS	4/4	PSC	8/8	UMC	4/8
HVC	2/4	NED	4/20	PUL	4/4	UPM	4/4	ZYU	8/8	TEU	4/4	EYM	4/4		

4 SHARESE

WTU	4/8	kfs	4/4	EMU	4/4	CGU	4/4	OSU	4/4	FQG	4/4
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4 SHARESWEST

CLU	4/4	mzf	4/2	UBY	4/4	AZU	4/4	MNU	4/4	NNY	2/2	UNL	4/4
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FirstSearch

WorldCat Discovery

WorldCat.org

OCLC WorldShare Interlibrary  
Loan

Cataloging

COUNTER

Digital Collections

Link Resolver

WebDewey

Assessment Tools

Period:

Months:

▼ Institution: YSM

- ↓  [ILL Fee Management Program Borrower Report](#)
- ↓  [ILL Fee Management Program Lender Report](#)
- ↓  [WorldShare ILL Purchase Request](#)
- ↓  [Resource Sharing Borrower Reasons For No Report](#)
- ↓  [Resource Sharing Lender Reasons For No Report](#)
- ↓  [Borrower Resource Sharing Stats Report](#)
- ↓  [Lender Resource Sharing Stats Report](#)
- ↓  [Strategic Union List Report](#)
- ↓  [Borrower Activity Overview Report](#)
- ↓  [Lender Activity Overview Report](#)

Table with columns: Row ID, Name, Title, Location, Date, Status, and various numerical/alphabetic codes. The table contains approximately 100 rows of data, with some rows having multiple entries in the same column.

```

1 function onOpen()
2 {
3   var ui = SpreadsheetApp.getUi();
4   ui.createMenu('Report')
5     .addItem('Lender', 'Lender')
6     .addItem('Borrowing', 'Borrowing')
7     .addItem('No', 'No')
8
9     .addToUi();
10 }
11
12 function Lender()
13 {
14 var ss = SpreadsheetApp.getActiveSpreadsheet();
15 var first = ss.getSheetByName("Import");
16 var appendSheet = ss.getSheetByName("LendData");
17 var source_sheet = ss.getSheetByName("CleanLend");
18 var values = source_sheet .getRange("CleanLend!2:" + source_sheet .getLastRow()).getValues();

```

Articles ▾ Loans ▾ CleanBorr ▾ CleanLend ▾ LendData ▾ BorrData ▾ Import ▾ MATH ▾ RESULTS ▾ Sorted ▾

```

21 SpreadsheetApp.flush()
22 first.clearContents()
23 }
24
25 function Borrowing()
26 {
27 var ss = SpreadsheetApp.getActiveSpreadsheet();
28 var first = ss.getSheetByName("Import");
29 var appendSheet = ss.getSheetByName("BorrData");
30 var source_sheet = ss.getSheetByName("CleanBorr");
31 var values = source_sheet .getRange("CleanBorr!2:" + source_sheet .getLastRow()).getValues();
32 | appendSheet .getRange(appendSheet .getLastRow()+1, 1, values .length, values[0] .length) .setValues(values);
33 SpreadsheetApp.flush()
34 first.clearContents()
35 }
36
37

```

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
1	Symbol	Type	\$ Loan	\$ Article	Lender Receive	Lender Ship	Borrower Receive	Days to Respond	Ship time	Symbol	Loan %	Article %	# of loan	# of article		Loan Count	Ship Time	Art Count	Response	Loans	Articles	Total Requests	
2	CGL	Loan	0.00		8/11/2023	8/16/2023	9/14/2023		34	OSU	27.78	74.93	3	221	CGL		34	BXM	1	1809	1279	3178	A2A
3	CS1	Loan	0.00		8/15/2023	8/16/2023	9/1/2023		47	IXA	43.05	56.99	63	89	CS1		17	BXM	0				A7U
4	YUS	Loan	10.00		8/21/2023	8/22/2023	9/1/2023		11	SYB	48.12	27.27	106	3	YUS		11	MMV	1				AAA
5	SYB	Loan	0.00		8/22/2023	8/22/2023	9/7/2023		16	TFW	52.63	70.65	41	50	SYB		16	ZYU	8				AAL
6	RRR	Loan	0.00		8/23/2023	8/24/2023	9/1/2023		9	VJN	29.41	86.44	8	84	RRR		9	TFW	0				ABB
7	SYB	Loan	0.00		8/23/2023	8/24/2023	9/1/2023		9	PAU	45.6	40.74	83	5	SYB		9	EAU	7				ABC
8	FBR	Loan	0.00		8/23/2023	8/25/2023	9/6/2023		16	TEU	21.43	59.12	11	76	FBR		14	TKN	0				ACM
9	BNG	Loan	0.00		8/23/2023	8/24/2023	9/7/2023		16	NNY	0	71.54	0	84	BNG		15	BXM	5				ACN
10	FBR	Loan	0.00		8/23/2023	8/25/2023	9/6/2023		16	IWA	42.22	36.84	58	7	FBR		14	IXA	1				ACNLC
11	SYB	Loan	0.00		8/23/2023	8/24/2023	9/1/2023		9	ZYU	24.64	59.09	20	39	SYB		9	NNY	1				AD#
12	BNG	Loan	0.00		8/23/2023	8/24/2023	9/7/2023		16	ZQP	44.04	0	57	0	BNG		15	BXM	0				ADA
13	BBH	Loan	0.00		8/23/2023	8/25/2023	9/6/2023		16	DRB	58.14	69.23	50	5	BBH		14	BXM	0				AEP
14	IWA	Loan	0.00		8/23/2023	8/28/2023	9/6/2023		16	AUM	51.43	38.1	48	3	IWA		14	IXA	1				AFU
15	UPM	Loan	10.00		8/24/2023	8/29/2023	9/1/2023		8	RRR	45.61	70.59	37	12	UPM		8	VVB	0				AGM
16	BUF	Loan	0.00		8/23/2023	8/25/2023	9/7/2023		16	IND	32.63	54.55	39	10	BUF		15	TEU	0				AHH
17	BXM	Article		10.00	8/24/2023	8/25/2023	9/1/2023	1		BNG	25	31.03	38	9	HUL		14	NYG	5				AHM
18	HUL	Loan	25.00		8/25/2023	8/29/2023	9/8/2023		16	BXM	18.37	64.29	11	33	LTM		19	COF	0				AHS
19	LTM	Loan	12.00		8/25/2023	8/30/2023	9/13/2023		16	TXF	53.85	70.69	8	36	GZN		12	YJK	5				AKC
20	GZN	Loan	15.00		8/25/2023	8/28/2023	9/6/2023		12	NJG	68.25	37.5	41	2	PBR		13	NNY	0				AKP
21	FBR	Loan	15.00		8/24/2023	8/30/2023	9/6/2023		13	NAM	30.23	74.29	17	24	BUF		14	NNY	0				AKU
22	BUF	Loan	0.00		8/24/2023	8/28/2023	9/7/2023		16	COF	0	67.16	0	41	CKM		14	ZRS	0				ALL
23	CKM	Loan	0.00		8/25/2023	8/28/2023	9/6/2023		16	MDY	65.31	50	39	1	WVU		12	ZFM	1				AMH
24	WVU	Loan	0.00		8/25/2023	8/30/2023	9/6/2023		12	BTS	60.87	45.45	34	3	SYB		13	NYP	2				AMN
25	SYB	Loan	0.00		8/25/2023	8/25/2023	9/7/2023		13	EAU	33.33	57.89	32	5	UPM		12	OSU	0				ANJ
26	UPM	Loan	10.00		8/25/2023	8/30/2023	9/6/2023		12	WEL	43.59	57.14	21	14	VRU		7	DRB	1				ANM
27	VRU	Loan	0.00		8/25/2023	8/28/2023	9/1/2023		7	TKN	45.31	52.94	24	10	YHM		13	BNG	1				ANTCH
28	YHM	Loan	0.00		8/25/2023	8/25/2023	9/7/2023		13	ZEM	86.36	57.14	28	5	COO		7	IXA	1				AP8
29	COO	Loan	10.00		8/25/2023	8/29/2023	9/1/2023		7	NYP	35	60	29	2	TXF		7	TFW	0				APB
30	TXF	Loan	0.00		8/25/2023	8/25/2023	9/1/2023		7	FBR	40.38	0	30	0	IXA		7	ZFM	1				ASB
31	IXA	Loan	0.00		8/25/2023	8/29/2023	9/1/2023		7	BUF	27.03	53.85	15	14	CC8		10	IXA	0				ASK
32	CC8	Loan	0.00		8/29/2023	8/30/2023	9/8/2023		10	BBH	35	50	27	1	NDD		11	NNY	0				ASU
33	NDD	Loan	15.00		8/31/2023	9/8/2023	9/11/2023		11	COD	23.53	37.5	22	4	YHM		10	TSC	1				ASZ
34	YHM	Loan	0.00		8/28/2023	8/29/2023	9/7/2023		10	IQU	25	72.41	4	21	ZFM		14	BNG	1				AUM
35	ZFM	Loan	0.00		8/28/2023	8/29/2023	9/11/2023		16	COO	37.5	27.78	19	5	SYB		14	TEU	0				AUT
36	SYB	Loan	0.00		8/28/2023	8/28/2023	9/11/2023		16	PUL	30.12	25	23	1	YUS		11	CGU	5				AUU
37	YUS	Loan	10.00		8/28/2023	8/29/2023	9/8/2023		11	EYM	51.85	40.74	14	10	IND		4	CGU	3				AVD
38	IND	Loan	0.00		8/28/2023	8/29/2023	9/1/2023		4	CBY	63.64	37.5	21	2	NAM		10	OSU	0				AW3
39	NAM	Loan	0.00		8/28/2023	8/28/2023	9/7/2023		10	PZS	36.36	78.26	20	3	SYB		14	COF	2				AXJ
40	SYB	Loan	0.00		8/28/2023	8/28/2023	9/11/2023		16	ZRS	60	86.36	9	14	VDB		4	TEU	0				AYP
41	VDB	Loan	0.00		8/28/2023	8/29/2023	9/1/2023		4	NYG	57.14	48.57	6	17	IXA		4	VJN	0				AZK
42	IXA	Loan	0.00		8/28/2023	8/29/2023	9/1/2023		4	UPM	21.43	44.07	11	11	SYB		14	IXA	1				AZM
43	SYB	Loan	0.00		8/28/2023	8/29/2023	9/11/2023		16	XFM	60	0	22	0	NYP		9	YUS	1				AZS
44	NYP	Loan	0.00		8/28/2023	8/28/2023	9/6/2023		9	TSC	40.48	33.33	20	1	WTU		9	IXA	0				AZU
45	WTU	Loan	10.00		8/28/2023	8/30/2023	9/6/2023		9	YUS	37.04	34.78	9	11	IWA		9	OSU	0				BAL
46	IWA	Loan	0.00		8/28/2023	8/29/2023	9/6/2023		9	ZCU	26.39	14.29	19	1	ONB		9	OSU	0				BAY
47	ONB	Loan	0.00		8/28/2023	8/29/2023	9/6/2023		9	KSU	34.38	80	15	5	FQG		9	NNY	0				BBH

	A	C	E	F	G	H	I	J	K	L	M	N	O	P
1	TOP Article	TOP Loan	Loan State		Symbol	Loan IFM	Article IFM	Avg Response	Avg Ship Time	Percent Filled (article)	Percent filled (loan)	Total (article)	Total (loan)	
2	NNM	NJG	NJ							0.00	0.00	0.00	0.00	
3	TXF	YLS	NY		A2A	0.00		3.50	10.00	0.00	13.64	-35.00	-22.72	
4	COF	PZS	VA		A7U	10.00		1.00	14.00	0.00	50.00	-10.00	-40.00	
5	RNM	DXU	PA		AAA	0.00	0.00	0.44	7.67	59.19	14.29	113.93		
6	VJN	WLU	CT		ABC			1.00		9.09	0.00	8.18	0.00	
7	YFM	VYA	NY		ACM	15.00		1.00	4.00	0.00	50.00	-10.00	-25.00	
8	VND	WEN	MA		AFSAM		0.00	0.00		100.00	0.00	200.00	0.00	
9	VQT	TSC	MD		AIC	0.00		3.00	10.00	0.00	33.33	-30.00	16.66	
10	IAILL	PLL	PA		ASU	0.00		0.00	7.00	0.00	33.33	0.00	31.66	
11	YCM	TFW	MA		AUM	0.00	0.00	1.25	5.60	27.03	30.86	41.56	33.72	
12	VZJ	VRU	VA		AVD	0.00		0.00	6.00	0.00	16.67	0.00	3.34	
13	VYQ	TKN	TN		AVMAR			2.00		50.00	0.00	80.00	0.00	
14	CS1	ZGM	NY		AW3	0.00		0.00	7.00	0.00	25.00	0.00	15.00	
15	SYB	NJT	NJ		AYP	0.00		0.00	2.00	0.00	3.57	0.00	-2.86	
16	IQU	YDD	NY		AZN	20.00		3.00	9.50	0.00	100.00	-30.00	12.50	
17	VYT	MFS	MD		AZO	0.00		0.00	9.00	0.00	11.11	0.00	-22.78	
18	AAA	DRB	NH		AZU	10.00	10.00	0.67	6.50	35.00	9.52	-6.67	-83.46	
19	NAM	ZHC	NY		BBH	0.00	0.00	1.02	6.04	47.83	29.58	85.44	28.95	
20	ZLM	AUM	MA		BCO	0.00		0.00	15.00	0.00	33.33	0.00	-8.34	
21	CSA	CBY	ME		BER	0.00		1.00	6.00	0.00	10.00	-10.00	-10.00	
22	ZRS	CTW	CT		BGU	20.00		2.00	7.00	0.00	100.00	-20.00	25.00	
23	MDY	COD	CO		BKL	0.00		3.90	8.80	0.00	16.67	-39.00	-10.66	
24	VGA	BBH	ME		BMC	10.00		0.00	3.00	0.00	8.33	0.00	-68.34	
25	YTM	VVR	NY		BMU	15.00		1.00	4.00	0.00	25.00	-10.00	-75.00	

# Configure Custom Holdings Paths

Required fields are marked with an asterisk \*

Custom Holdings Path

BOOKS



## Custom Holdings Path

\* Custom Holdings Path Name

BOOKS

[Create New Custom Hold](#)

Description:

Add and remove groups between these lists to configure your custom holdings path. Drag and drop to order your custom holdings path.

Choose from available Custom Holdings Groups (13)

BOOSTA  
ECHEAP  
ELVIS  
EPAID  
IDS  
IDSDOWNSTATE  
IDSNEW  
IDSNONNY  
IDSUPSTATE  
RFQIP

Add

Groups chosen for this path (10)

+ BOOSTB  
+ FREELOCAL  
+ FREEEAST  
+ FREEREST  
+ SHARESNE  
+ SHARESSE  
+ SHARESWEST  
+ SHARESINTER  
+ LVISNE  
+ LVISREST

To modify or delete available groups visit the [Custom Holdings Groups](#) page.

# Configure Custom Holdings Groups

Required fields are marked with an asterisk \*

Display groups: [by group name](#) | [by symbol](#)

Custom Holdings Groups

BOOSTA

## Custom Holdings Groups

\* Custom Holdings Groups Name:

Description:

OCLC Symbol(s)

Symbols currently in the group: 65

[Create New Custom Holdings Group](#)

### Add/Edit OCLC symbols

Enter the OCLC institution codes of the libraries you want in this group below. Use spaces to separate the symbols. You can highlight and delete codes as well. [Click here](#) to open the policies directory in a separate window.

AAA AUM BBH BNG BUF CBY CLART COD COF CS1 CSA DLC DRB EAU HUH IAILL IQU IWA JHE  
MDY NAM NGA NNM NRC NYP OSU RNM RRR RVE SYB TEU TFW TKN TXF TYC UCW VGA VJN  
VND VQT VRU VVB VVW VXW VYQ VYT VZJ WEL WLU XBM XFM XLM YBM YCM YFM YTM ZCU  
ZCZ ZEM ZIH ZLM ZNC ZOW ZRS ZYU

Update Symbols

Cancel

BOWDOIN COL

BNG

SUNY AT BINGHAMTON

BUF

SUNY AT BUFFALO

CBY

Clear selected symbols

Add/Edit symbol(s)

BOOSTB

TFW	4/4	CBY	4/4	ONB	4/4	AUM	4/4	NJG	2/2	ZCU	8/8	PLL	8/8	DRB	4/4
IND	4/8	PAU	4/8	VSI	4/20	COD	4/4	BTS	4/4	MFS	4/4	MDY	4/4		

FREELOCAL

XQM	4/4	CTX	4/4	CTL	4/4	TYC	4/4	WX	4/4	ydd	4/4	YLS	4/4	VVJ	8/8
VVP	4/4	VJA	4/8	VDB	4/4	ZXC	4/4								

FREEEAST

YPM	4/4	VVC	8/16	RVE	4/4	VVV	4/4	WLU	4/4	VDN	20/20	ZAM	4/2	YOM	2/2
CKM	8/8	BUF	8/8	VXV	4/4	jhe	4/4	ZQM	4/4						

FREEWEST

IQU	4/4	CHU	4/4	HDC	8/12	AAA	4/4	CSJ	4/4	CS1	4/4	WVU	4/4
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SHARESNE

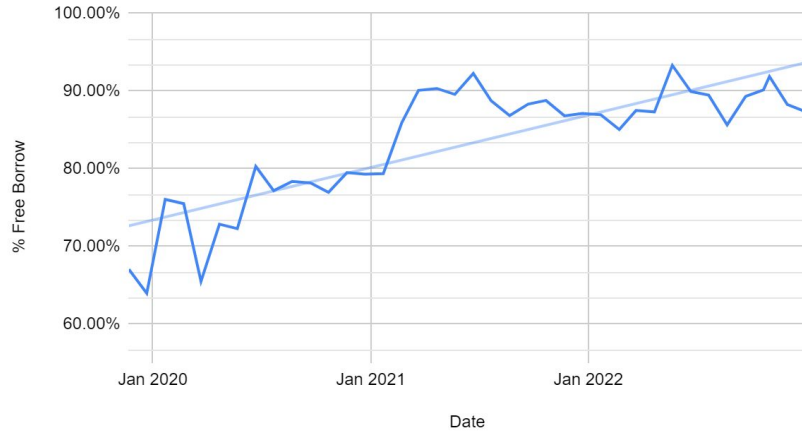
DLM	4/4	COO	4/4	NJR	4/4	EMI	4/4	UMC	4/8	RBN	4/4	PUL	8/8	VYF	4/4
UPM	4/4	ZYU	8/8	TEU	4/4	EYM	4/4								

SHARESSE

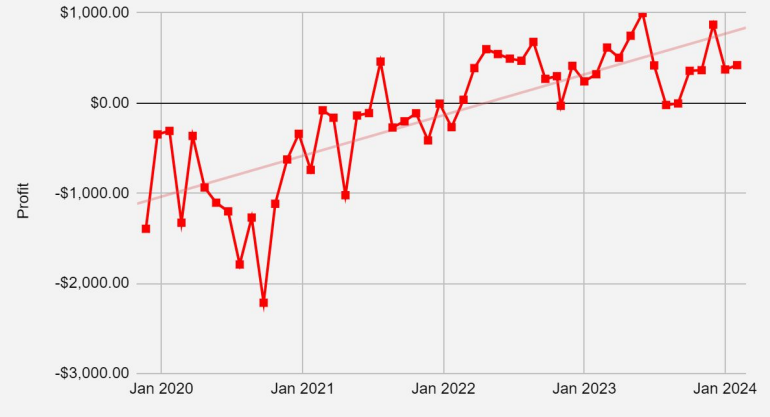




Percentage of Borrowing Acquired for Free



YSM OCLC Lending Profits minus Borrow Expenses





# Excel Math

Fruit	Count	Cost (Each)	Tax (Each)	Shipping Cost
Apple	8	\$1.00	\$0.09	\$0.55
Banana	21	\$0.78	\$0.07	\$0.22
Coconut	4	\$2.50	\$0.22	\$1.30



# Excel Math

Fruit	Count	Price (Each)	Tax (Each)	Shipping Cost	Total Price	Total Tax	Total Cost
Apple	8	\$1.00	\$0.09	\$0.55			
Banana	21	\$0.78	\$0.07	\$0.22	\$16.38	\$1.47	\$17.85
Coconut	4	\$2.50	\$0.23	\$1.30			



# Excel Math

Fruit	Count	Price (Each)	Tax (Each)	Shipping Cost	Total Price	Total Tax	Total Cost
Apple	8	\$1.00	\$0.09	\$0.55	\$8.00	\$0.72	\$8.72
Banana	21	\$0.78	\$0.07	\$0.22	\$16.38	\$1.47	\$17.85
Coconut	4	\$2.50	\$0.23	\$1.30	\$10.00	\$0.90	\$10.90



# Excel Math

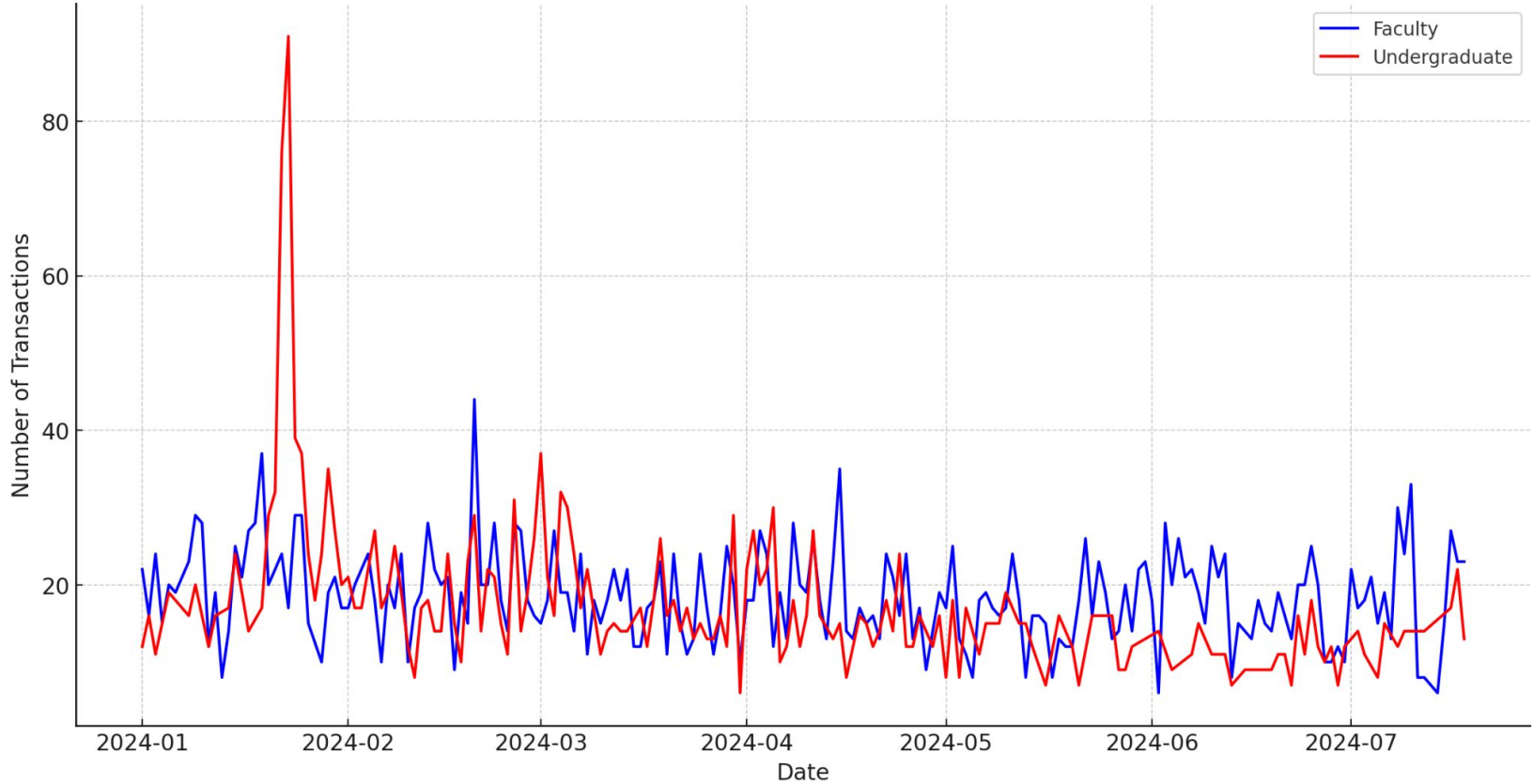
Fruit	Count	Price (Each)	Tax (Each)	Shipping Cost	Total Price	Total Tax	Total Cost
Apple	8	\$1.00	\$0.09	\$0.55	\$8.00		\$8.72
Banana	21	\$0.78	\$0.07	\$0.22	\$16.38		\$17.85
Coconut	4	\$2.50	\$0.23	\$1.30	\$10.90	\$0.90	\$10.90
Date	5	\$2.93	\$0.26	\$1.30	\$15.95	\$1.32	\$15.95
Elderberry	6	\$3.68	\$0.33	\$2.06	\$24.06	\$1.99	\$24.05
Fig	3	\$4.43	\$0.45	\$2.40	\$13.28	\$1.20	\$14.48
Grape	65	\$0.08	\$0.01	\$3.00	\$5.20	\$0.47	\$5.67
Honeydew	2	\$5.92	\$0.53	\$5.00	\$11.85	\$1.07	\$12.92
Ice	27	\$0.33	\$0.33	\$5.00	\$9.99	\$0.90	\$10.89
Jackfruit	4	\$6.67	\$0.67	\$5.45	\$29.71	\$2.67	\$32.38
Kiwi	7	\$4.03	\$0.21	\$4.07	\$28.08	\$2.53	\$30.61
Lemon	17	\$1.12	\$0.10	\$0.24	\$19.04	\$1.71	\$20.75
Mango	11	\$9.68	\$0.87	\$4.82	\$9.68	\$0.87	\$10.55
Nectarine	0	\$10.43	\$0.94	\$0.90	\$0.00	\$0.00	\$0.00

=IFERROR(vlookup(G2, MATH!W:Y, 3, false), 0)

Fruit	Count	Cost (Each)	Tax (Each)	Shipping Cost
Apple	8	\$1.00	\$0.09	\$0.55
Banana	21	\$0.78	\$0.07	\$0.22
Coconut	4	\$2.50	\$0.22	\$1.30

```
df = pd.read_csv('C:\\Desktop\\fruitdata.csv')
df['Total Cost (After Tax)'] = (df['Cost (Each)'] + df['Tax (Each)']) * df['Count']
banana_cost = df[df['Fruit'] == 'Banana']['Total Cost (After Tax)']
print(banana_cost)
```

```
Output = '$17.85'
```





```
data = pd.read_excel('/data/ILLiaddf.xlsx')
data_2024 = data[data['Creation Date'].dt.year == 2024]

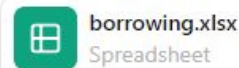
faculty_data = data_2024[data_2024['Status'] == 'Faculty']
undergraduate_data = data_2024[data_2024['Status'] == 'Undergraduate']

transaction_volume_faculty = faculty_data.groupby(faculty_data['Creation Date'].dt.date).size()
transaction_volume_undergraduate = undergraduate_data.groupby(undergraduate_data['Creation Date'].dt.date).size()

# Plotting for graph
plot.plot(transaction_volume_faculty.index, transaction_volume_faculty.values, label='Faculty')
plot.plot(transaction_volume_undergraduate.index, transaction_volume_undergraduate.values, label='Undergraduate')
plot.xlabel('Date')
plot.ylabel('Number of Transactions')
plot.show()
```



A short aside to talk about  
Generative AI  
or  
(how we fake being good at  
computers by asking ChatGPT to  
be good at computers for us)



Use the attached xlsx file as a dataframe, then filter the data to create a dataframe where 'Creation Date' is 2024. Each row is a transaction. Plot a graph using transaction data across the year 2024.

# ChatGPT

The data contains many columns. To focus on the 'Creation Date', I'll first check if this column exists in the dataset and inspect its format. Let's check this now. [-]

The dataset includes a 'Creation Date' column with datetime data type, which is exactly what we need for filtering and plotting the transactions. I'll filter the transactions where the 'Creation Date' is within the year 2024 and then plot a graph to show the number of transactions across different months of the year. Let's proceed with this. [-]

Here's Python code that you can use to create a chart displaying the number of transactions across the year 2024:

```
python
import pandas as pd
import matplotlib.pyplot as plt
```

Copy code

# Address Book, States call back

## Loan TaT

- 1 New Jersey
- 2 Connecticut
- 3 Massachusetts
- 4 Pennsylvania
- 5 Virginia

## Article TaT

- 1 Texas
- 2 Tennessee
- 3 Pennsylvania
- 4 Nevada
- 5 New York

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Shipping Information	
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	ILL 4355 Lakeshore Dr.
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	HEALTH SCIENCES LIBRARY - ILL
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	41501

A <sup>B</sup> C	Lending Library Address
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	USDA APHIS LIBRARY 4700 River Rd. Unit 6 Riverdale, MD 20737
	ERS Reference Center U.S. Dept. of Agriculture 1800 M Street N.W. R...
	National Agricultural Library ILL USDA/Collections Services Branch 103...
	USDA, ARS, NAL, Interlibrary Loan, Room 10301 Baltimore Ave Beltsvil...
	National Agricultural Library ILL USDA Room 303 Beltsville, MD 20705-...
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	USDA Forest Service Knowledge Connection 1323 Club Dr. Vallejo, CA ...
	Library, ILL USDA Southern Regional Research Center 1100 Robert E Le...
	Lyon College Library Mabee-Simpson Library/ILL 2300 Highland, Ba...
	Library, ILL Ashland University 401 College Ave. Ashland, OH 44805
	Thomas Byrne Memorial Library Spring Hill College- Interlibrary Loan 4...

## Custom Column

Add a column that is computed from the other columns.

New column name

Custom column formula ⓘ

```
= OpenAI("Context: address = "&[Lending Library Address]&".  
You are an assistant helping normalize address data.  
Output the two letter US state code associated with this  
address. If the address is not in the United States, print  
the string INTL")
```

[Learn about Power Query formulas](#)




A <sup>B</sup> C Lending Library Address	ABC 123 StateAL
Library, ILL U.S. Forest Products Laboratory One Gifford Pinchot Drive Madison, WI 53705-2398	WI
USDA APHIS LIBRARY 4700 River Rd. Unit 6 Riverdale, MD 20737	MD
ERS Reference Center U.S. Dept. of Agriculture 1800 M Street N.W. Rm. 3050 Washington, D.C. 20036-5831	DC
National Agricultural Library ILL USDA/Collections Services Branch 10301 Baltimore Avenue, Room 303 Beltsville, MD 207...	MD
USDA, ARS, NAL, Interlibrary Loan, Room 10301 Baltimore Ave Beltsville US-MD 20705-2351 US	MD
National Agricultural Library ILL USDA Room 303 Beltsville, MD 20705-2351	MD
Rapides Parish Library 411 Washington St Alexandria Louisiana 71301	LA
Iberville Parish Library 24605 J. Gerald Berret Blvd. Plaquemine Louisiana 70764	LA
Interlibrary Loan/RMRS Library 240 W. Prospect Rd. Fort Collins, CO 80526	CO
Library Natl. Ctr. for Agricul. Utilization Res. 1815 N. University St. Peoria, IL 61604	IL
USDA Forest Service Knowledge Connection 1323 Club Dr. Vallejo, CA 94592	CA
Library, ILL USDA Southern Regional Research Center 1100 Robert E Lee New Orleans, LA 70124	LA
Lyon College Library Mabee-Simpson Library/ILL 2300 Highland, Batesville, AR 72501	AR
Library, ILL Ashland University 401 College Ave. Ashland, OH 44805	OH
Thomas Byrne Memorial Library Spring Hill College- Interlibrary Loan 4000 Dauphin Street Mobile, AL 36608-1780	AL



Call Number:  
ML1402 .R85 2009

Shelf Number: 30

You will find your book where the  is located.

You will find this item towards the center of shelf number 30.

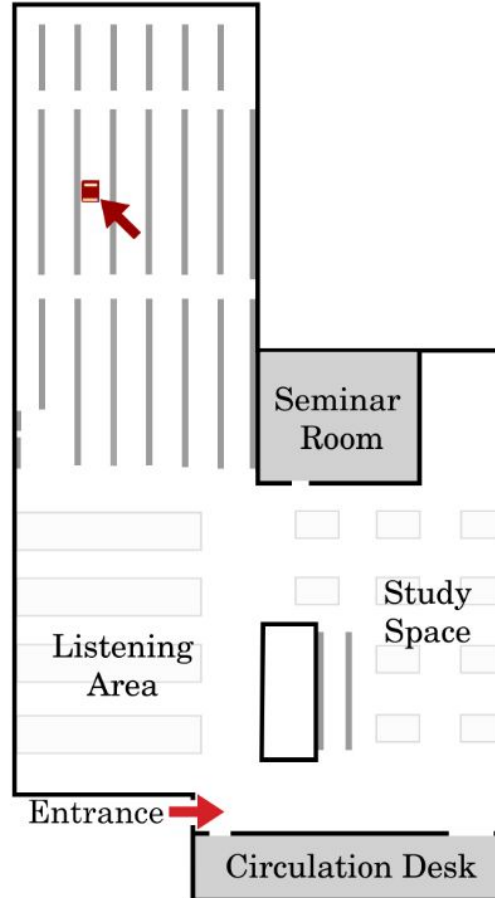


Need help? Here are some resources:

- [Call Number Guide](#)
- [Directions to Library](#)

For further assistance, please contact us at [circulation@stonybrook.edu](mailto:circulation@stonybrook.edu).

# Stony Brook University Primo Maps



FAR  
BEYOND



# It all starts with an idea...

- What do we want?
  - Faster results
  - More flexibility
  - Better interface
  - Shareability
  - Less... *“sheet”*





# It all starts with an idea...

- What do we need?
  - Data
  - Math (Pandas)
  - Interface



```
77 fastest_symbols = meaned.sort_values(by='DaystoRes', ascending=True)
78 chopchop = fastest_symbols[fastest_symbols['DaystoRes'] < turnaround_time]
79 fastandcheap = chopchop[chopchop['Clean Charge'] < max_price]
80 test = " ".join(fastandcheap.index.tolist())
81
82 print(test)
83
```

PROBLEMS

OUTPUT

DEBUG CONSOLE

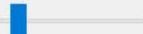
TERMINAL

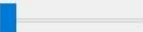
PORTS

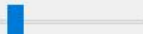
```
TKN ZEM TXF NNY EYW OSU VYE VJN NGA COA AUM TEU YOM HUH RVE VYA ZRS PAU VV XQM ZIH
JT IND CLART IXA IWA COF NYG WTU BNG KSU IQU BUF TFW RRR VYT COD EAU ZYU
```

# SBU Boosted Group Builder

August 2023  
September 2023  
October 2023  
November 2023

Transactions: 10.0 

Price: 0.0 

Turnaround Time: 2.0 

Type:  Loan  Article

Go

Clear

List Detail

TKN TXF NNY  
OSU VYE VJN  
TEU RVE VYA  
ZRS VVV NAM  
CKM UPM PZS  
WEL NJT IND IXA  
COF NYG IQU  
BUF TFW RRR  
VYT EAU ZYU

# SBU Boosted Group Builder

Settings:

Light

Apply

## Data

August 2023  
September 2023  
October 2023  
November 2023

## Parameters

Transactions:

Price:

Turnaround Time:

Type:  Loan  Article

Go

Clear

## Output

List Detail

NJG MDY AUM BNG  
BTS SYB ZEM TKN IWA  
DRB IXA COD EAU TFW  
BBH IND ZQP PAU RRR

\*\*\*work in progress, as of 05/10/2024



# SBU Lender String Builder

## Upload Files

No file chosen

## File Viewer

August 2023  
September 2023  
October 2023  
November 2023

## Parameters

Min Transactions:

5

Max Price:

1

Max Turnaround Time (days):

0.1

Type:  Article  Loan

## Results

### Custom Holdings String







TKN, ZEM, TXF, NNY

### Detail

Symbol	Transactions	Price	Turnaround Time
TKN	10	0.00	0.0
ZEM	8	0.00	0.0

[FirstSearch](#)[WorldCat Discovery](#)[WorldCat.org](#)[OCLC WorldShare Interlibrary Loan](#)[Cataloging](#)[COUNTER](#)[Digital Collections](#)[Link Resolver](#)[WebDewey](#)[Assessment Tools](#)Period:   Months:  

▼ Institution: YSM

-   [ILL Fee Management Program Borrower Report](#)
-   [ILL Fee Management Program Lender Report](#)
-   [WorldShare ILL Purchase Request](#)
-   [Resource Sharing Borrower Reasons For No Report](#)
-   [Resource Sharing Lender Reasons For No Report](#)
-   [Borrower Resource Sharing Stats Report](#)
-   [Lender Resource Sharing Stats Report](#)
-   [Strategic Union List Report](#)
-   [Borrower Activity Overview Report](#)
-   [Lender Activity Overview Report](#)



# SBU Lender String Builder

## Upload Files

No file chosen

## File Viewer

August 2023  
September 2023  
October 2023  
November 2023

## Parameters

Min Transactions:

5

Max Price:

1

Max Turnaround Time (days):

0.1

Type:  Article  Loan

## Results

### Custom Holdings String

TKN, ZEM, TXF, NNY

### Detail

Symbol	Transactions	Price	Turnaround Time
TKN	10	0.00	0.0
ZEM	8	0.00	0.0



## Parameters

Min Transactions: [i](#)

Max Price: [i](#)

Max Turnaround Time: [i](#)

Type:  Article  Loan

Go

Clear



# Results

## Custom Holdings String

TXF NNY OSU VJN TEU VVV NAM UPM IND IXA COF

## Detail

Symbol	Transactions	Price	Turnaround Time
TXF	40	0.00	0.1
NNY	85	0.00	0.1
OSU	241	0.00	0.2
VJN	93	0.00	0.2
TEU	77	0.00	0.2
VVV	22	0.00	0.4
NAM	25	0.00	0.4

Table with columns: Row ID, Name, Title, Location, Date, Status, and various numerical/alphabetic codes. The table contains approximately 100 rows of data, each representing a record with multiple fields.

# Results

## Custom Holdings String

TXF NNY OSU VJN TEU VVV NAM UPM IND IXA COF

## Detail

Symbol	Transactions	Price	Turnaround Time
TXF	40	0.00	0.1
NNY	85	0.00	0.1
OSU	241	0.00	0.2
VJN	93	0.00	0.2
TEU	77	0.00	0.2
VVV	22	0.00	0.4



Stony Brook University



**GitHub**



[github.com/SBULibraries](https://github.com/SBULibraries)

**FAR  
BEYOND**

[illwebapp.onrender.com](https://illwebapp.onrender.com)

*\*Images from <https://github.com/logos>*



Stony Brook University

# Questions?

[timothy.kohn@stonybrook.edu](mailto:timothy.kohn@stonybrook.edu)

[matthew.hartman@stonybrook.edu](mailto:matthew.hartman@stonybrook.edu)

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**FAR  
BEYOND**