

We have a new verb on campus...
and you can get one, too!

Maple

Wednesday, February 19, 2014

1:00 - 1:45 p.m.

Texas Association of Institutional Research

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What we all have...

- A lot of data from varying sources
- Diverse business processes
- Constant requests for our time and our data
 - Both internally and externally
- An unyielding demand for current, accurate and complete information
- AND... constantly changing questions

What we all need...

- Analysis of university data
 - Federal, state and internal reporting
- Consistent answers
 - Clean data
 - Reliable and documented definitions
- Systematic and nimble reporting processes
- Conversations with consumers of information

What most of us actually have...

- Limited staff and time
- Limited funding
- Decent computer skills
- Support for improving our processes
- A rough idea where we want to go

At UIW... IR staff of 5

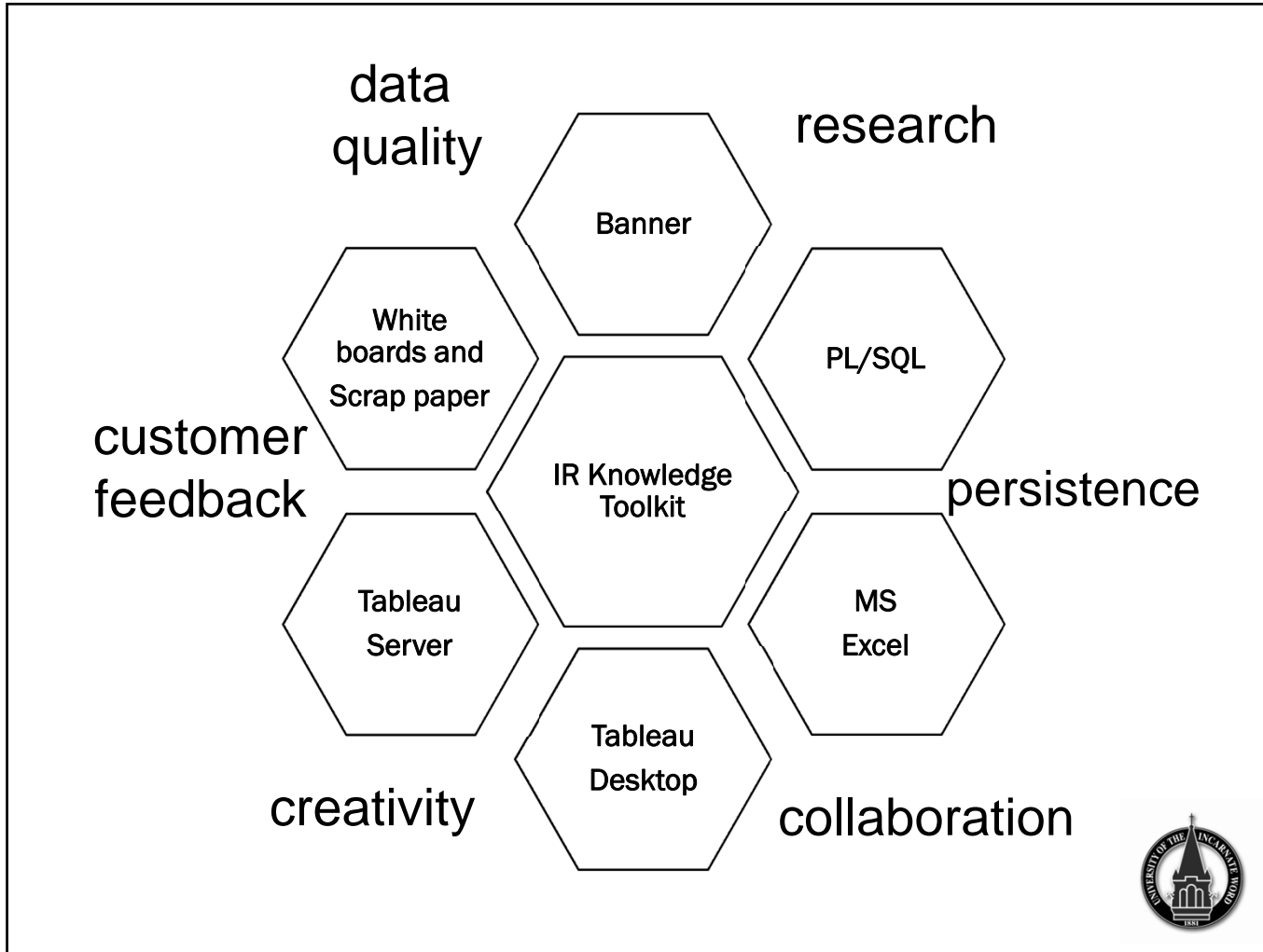
Tableau

- Desktop
- Server (aka **DASH**)
- Public

Banner

- PL/SQL
- UIW_IR schema

Lots and lots of data and ideas

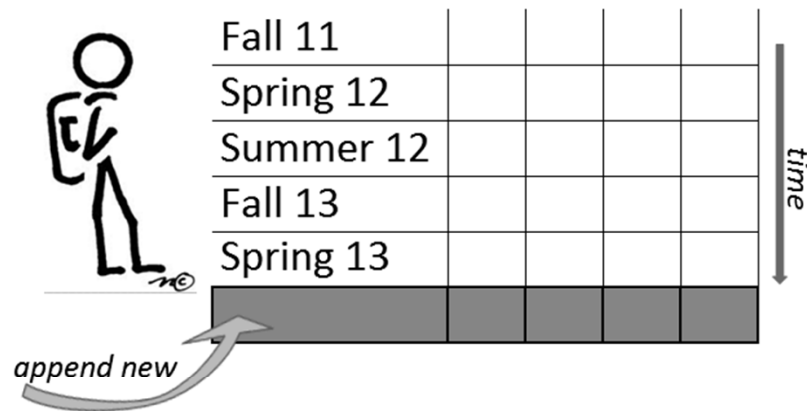


Our Historical File Structure

Census_Enroll

Census_Courses

Daily_Enroll



Think: *One row*

... per student

... per ____

... per ____

Census_Enroll

per student

per term

Census_Courses

per student

per term

per course

Daily_enroll

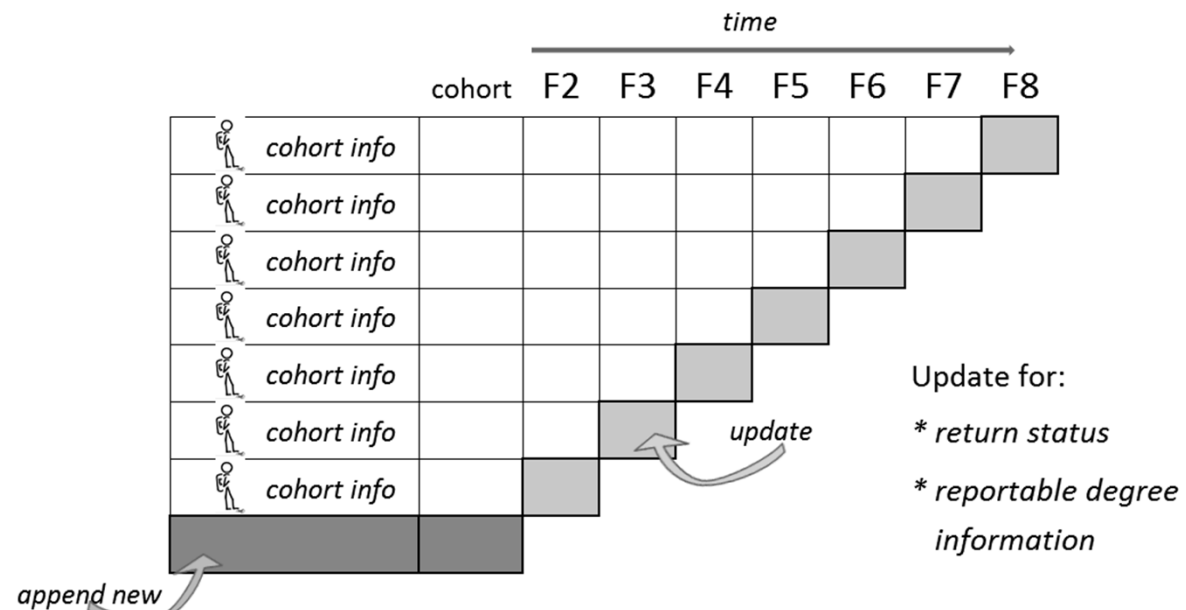
per student

per term

per day


...and then came

Retention_FTIC



Think: *One row* | ... per student | ... across time

Remember... we are trying to get here



Retention Study - Daily Enrollment of FTIC:
Fall term

Cohort Term Filter
Academic Year 2 < >

Retention: daily trend Fall
Academic Year 2

The Daily Ticker Fall

		Fall 2012	Fall 2011	Fall 2010
		September 4, 2013	September 5, 2012	September 7, 2011
		0 - Census	0 - Census	0 - Census
No Return	No Term Registration	279	216	166
	Registered in Term	65	55	35
Registered	Registered in Term	720	779	685
Grand Total		1,064	1,050	886

Retention: today to today in prior years Fall

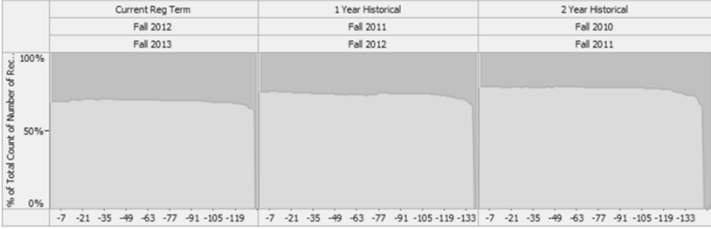
		No Return	Registered	Grand Total
Fall 2010	September 7, 2011 0 - Census	22.7%	77.3%	100.0%
Fall 2011	September 5, 2012 0 - Census	25.8%	74.2%	100.0%
Fall 2012	September 4, 2013 0 - Census	25.4%	74.6%	100.0%

Retention: as of Census Fall

		Census - No Return	Census - Return	Grand Total
Fall 2010	September 7, 2011	22.7%	77.3%	100.0%
Fall 2011	September 5, 2012	25.8%	74.2%	100.0%
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Retention: number of days from census Fall
Academic Year 2

	Fall 2013			Fall 2012			Fall 2011		
	No Return	Registered	Total	No Return	Registered	Total	No Return	Registered	Total
0	344	720	1,064	279	720	1,000	216	779	995
-1	339	725	1,064	266	784	1,050	588	886	1,474
-2	339	725	1,064	266	784	1,050	198	688	886



Is it today? - combined with --Status Today

Student List Fall
September 4, 2013, 0 day(s) from Census for Fall 2013

Student Name	PIDM	Confidential	Deceased	Cohort Term	Enrollment St.	Gender	Academic Tier	Ethnicity (g)	State
<i>Demographics of students for the current registration term</i>									

Reporting the daily retention rate during the registration period

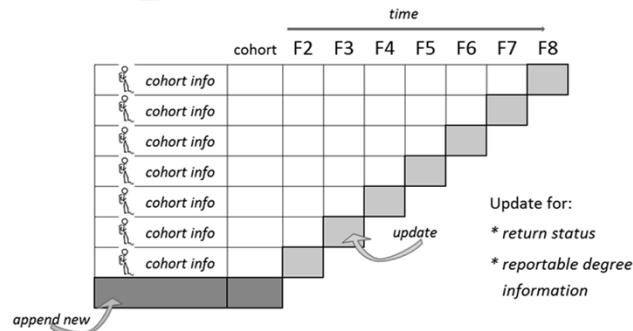
**We have a decision to
make about the data
structure for Tableau
development.**

We know that we ...

- 1. do not want to create another table.**
- 2. need an efficient query behind the report.**
- 3. do not need multiple dashboards – so, we need a filter.**

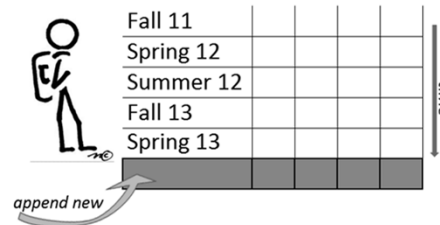
Address TIME first

Retention_FTIC



Think: *One row* | ... per student | ... across time

- Census_Enroll
- Census_Courses
- Daily_Enroll



Think: *One row* | ... per student | ... per ____ | ... per ____

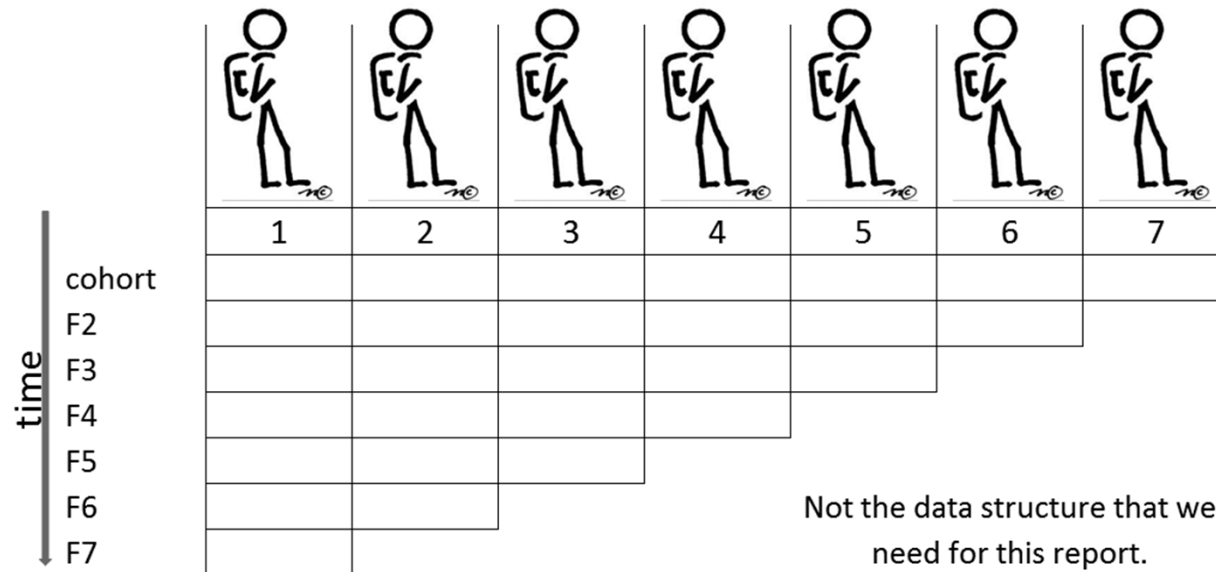
Census_Enroll	per student	per term	
Census_Courses	per student	per term	per course
Daily_enroll	per student	per term	per day

**We have a decision
about conditioning the
data.**

**Do we transpose
- or -
do we reshape?**



Time is correct, but...

Transposed FTIC



Reshaped FTIC

Multiple rows per student

	1	cohort	F2
	1	cohort	F3
	1	cohort	F4
	1	cohort	F5
	1	cohort	F6
	1	cohort	F7
	1	cohort	F8
		2	cohort
2		cohort	F3
2		cohort	F4
2		cohort	F5
2		cohort	F6
2		cohort	F7
2		cohort	F8





time ↓

**Time &
people
are
correct,
but...**

Time, people AND multiple elements in later terms

Twisted FTIC

Multiple rows per student

			Term	Reg Date	Reg Status
	1	cohort	F2	11/15/2013	No Return
	1	cohort	F2	11/16/2013	Return
	1	cohort	F2	11/17/2013	Return
	1	cohort	F2	11/18/2013	Return
	2	cohort	F2	11/15/2013	Return
	2	cohort	F2	11/16/2013	No Return
	2	cohort	F2	11/17/2013	No Return
	2	cohort	F2	11/18/2013	No Return
	3	cohort	F3	11/15/2013	No Return
	3	cohort	F3	11/16/2013	No Return
	3	cohort	F3	11/17/2013	Return
	3	cohort	F3	11/18/2013	Return
	4	cohort	F3	11/15/2013	Return
	4	cohort	F3	11/16/2013	Return
	4	cohort	F3	11/17/2013	Return
	4	cohort	F3	11/18/2013	Return

time

Let's try it out in Excel

Tableau Add-on for Excel

<http://kb.tableausoftware.com/articles/knowledgebase/addin-reshaping-data-excel>


Preparing excel files for Tableau

<http://kb.tableausoftware.com/articles/knowledgebase/preparing-excel-files-analysis>

Tableau with the data

< show tableau in action >

And now we are here...



**Retention Study - Daily Enrollment of FTIC:
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Cohort Term Filter
Academic Year 2 < >

The Daily Ticker Fall

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Fall 2012	September 4, 2013 0 - Census	32.3%	67.7%	100.0%

Retention: as of Census Fall

		Census - No Return	Census - Return	Grand Total
Fall 2010	September 7, 2011	22.7%	77.3%	100.0%
		201	685	886
Fall 2011	September 5, 2012	25.8%	74.2%	100.0%
		271	779	1,050
Fall 2012	September 4, 2013	32.3%	67.7%	100.0%
		344	720	1,064

Retention: number of days from census Fall
Academic Year 2

	Fall 2013			Fall 2012			Fall 2011		
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Retention: daily trend Fall
Academic Year 2



Is it today? - combined with - Status Today

False, No Return
 False, Registered
 True, No Return
 True, Registered

Status Today (g) Status in Term Campus Group Gender Ethnicity (g)

No Return No Term Registration MAIN F Hispanic

Student List Fall
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Student Name	PIDM	Confidential	Deceased	Cohort Term	Enrollment St.	Gender	Academic Tier	Ethnicity (g)	Stat
<i>Detailed list of students for the current registration term</i>									

So, what is our verb?

DASHIFY

**People bring us data
sets or ideas and ask...**

*“Hey, Dru,
Can we DASHify this?”*

**Suuurrrre,
we can do that.
<smile>**

**So, what else have we
DASHified?**

**See additional
handouts**

Daily Enrollment
Application Funnels
Degree Paths
Survey Results
EMR data
IPEDS data
...and still going



Things to remember: Where's the Data?

Variety of connection options available when developing reports, so consider:

- Size and source of data
- Scope
- Speed of connection to data
- Scripting
- Sustainability
- Security (protection of contents)
- Use



Other things to remember: Where's the Report Going?

- Change in approach to data
- Initial users, both to develop and to consume
- Delivery of information
 - Purpose of report
 - Need for interactivity
 - Home location of raw data
 - Security (who gets permission to use report)
- Storage of reports / access locations

**We will share our celebrity
encouragement with you!**

Develop more dashboards!
Garrison Keillor

Garrison Keillor of *The Prairie Home Companion*

Contact Us

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Materials for the presentation have been posted to <http://sites.uiw.edu/ir/presentations/>