

Automating custom peer reports using IPEDS data with SQL, R and LaTeX

SHILOH BRADLEY

INSTITUTIONAL RESEARCH DATA ANALYST

OFFICE OF DECISION SUPPORT

UNIVERSITY OF NEVADA, LAS VEGAS

UNLV

Overview

- ▶ Software
- ▶ Benefits
- ▶ Limitations
- ▶ Use the Data
- ▶ Demonstration and Questions

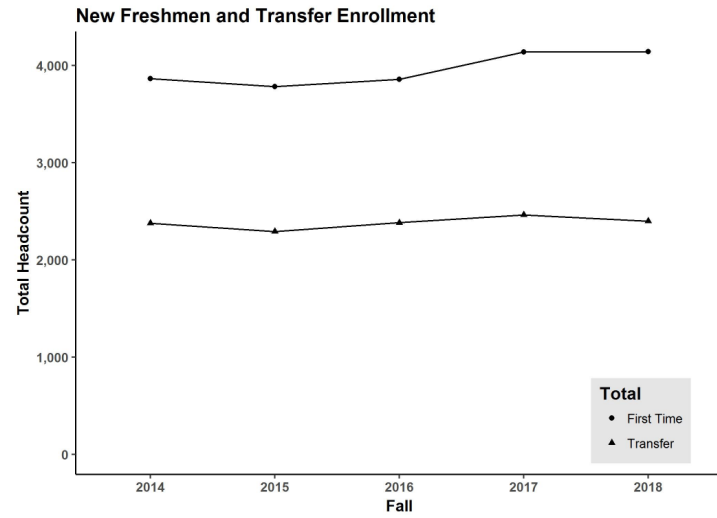
Software

- ▶ R and RStudio
- ▶ LaTeX (MiKTeX)
- ▶ ODBC

Benefits

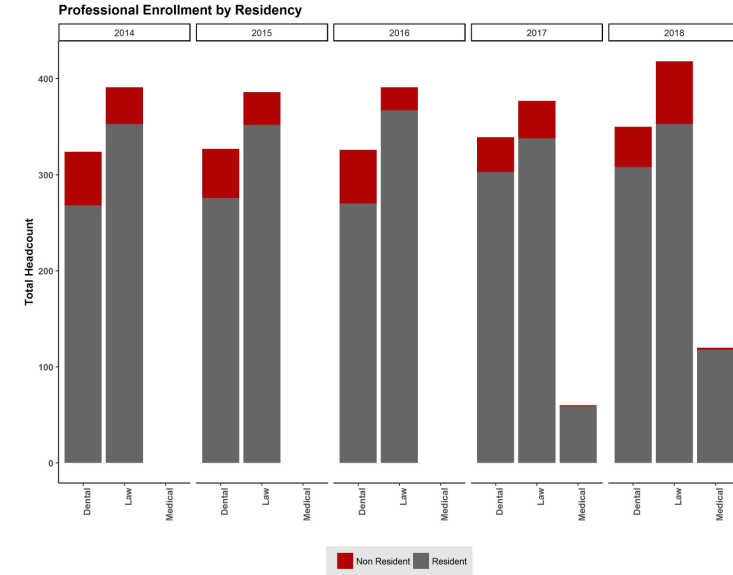
- ▶ All of the software is free
- ▶ IPEDS data is free and publicly available
- ▶ Potentially can save time and money
- ▶ Use institutional data to create quick graphics and tables
- ▶ Could be compiled together into a factbook

New Freshmen and Transfer Enrollment



FALL	NEW FRESHMEN	TRANSFER STUDENTS	TOTAL
2014	3,865	2,378	6,243
2015	3,784	2,294	6,078
2016	3,859	2,384	6,243
2017	4,140	2,465	6,605
2018	4,144	2,401	6,545

Professional Enrollment by Residency



FALL	CAREER	RESIDENT	NONRESIDENT
2014	Dental	268	56
2014	Law	353	38
2015	Dental	276	51
2015	Law	352	34
2016	Dental	270	56
2016	Law	367	24
2017	Dental	303	36
2017	Law	338	39
2017	Medical	59	*
2018	Dental	308	42
2018	Law	353	65
2018	Medical	118	*

Limitations

- ▶ Does not work on Apple computers
- ▶ Could be hard to set up if you don't have administrative rights on your computer
- ▶ Variable names can and will change
- ▶ Learning what tables and variables are needed

Use the Data

- ▶ Make different comparison groups based on reporting needs or research interests
- ▶ IPEDS Access databases can be used to benchmark:
 - ▶ State
 - ▶ Sector
 - ▶ Carnegie class
 - ▶ And so much more!

Use the Data

Tables16



Vartable16



ValueSets16

- ▶ Use the Table Documentation file to find which tables and variables to use

Tables16	A table of all the surveys and data tables in the Access database.
Vartable16	A table of all the variables in the Access database and what tables from Tables16 they belong to.
ValueSets16	A table of all possible values stored within each variable from Vartable16 they belong to.
VariableChanges1516	A table of how the data points have changed compared to last year (such as name changes or whether variables were added or removed).
ValueChanges1516	A table that shows whether a value in the data was added or removed compared to the previous year.
Metadata definitions	A table that describes the variables in Tables16, Vartable16, and ValueSets16.

Demonstration & Questions

UNLV

Thank you!

UNLV