Introduction: What are the Carnegie Classifications?

- The Carnegie Classifications are a metric by which like institutions can be compared.
- Three Classifications of Doctorate-Granting Universities
- Many different classifications of Bachelor's, Associates-only institutions *In 2015, the classifcations were used on more than 4600 institutions, everything from Stanford University to the Golf Academy of America.*

Figure 1: Aggregate Index:

Montana State University: A History

- Montana State had been classified as R-1 in 2005 and 2010
- In 2015, Montana State moved to R-2

Not a Ranking!

- The system is designed for **CLASSIFICATION** of institutions, not rankings!
- Institutions near each other can be considered a "peer group" of schools Montana State's peer group:

How are the Classifications Calculated?

The classifications are calculated based on two indices of institutional output. The first is based on a weighted average of the number of PhDs awarded by the institution; the second is based on a per-capita measurement of research expenditures and research staff. **Aggregate Index:**

$$Ag.Index_i = HumanitiesPhD_i + StemPhD_i + SocialSciencePhD_i + OtherPhD_i + StemExpenditures_i + NonStemExpenditu$$

Per Capita Index:

$$PC.Index_i = \frac{ResearchStaff_i + StemExpenditures_i + NonStemExpenditures_i}{FacultySize_i}$$

Principal Components Analysis
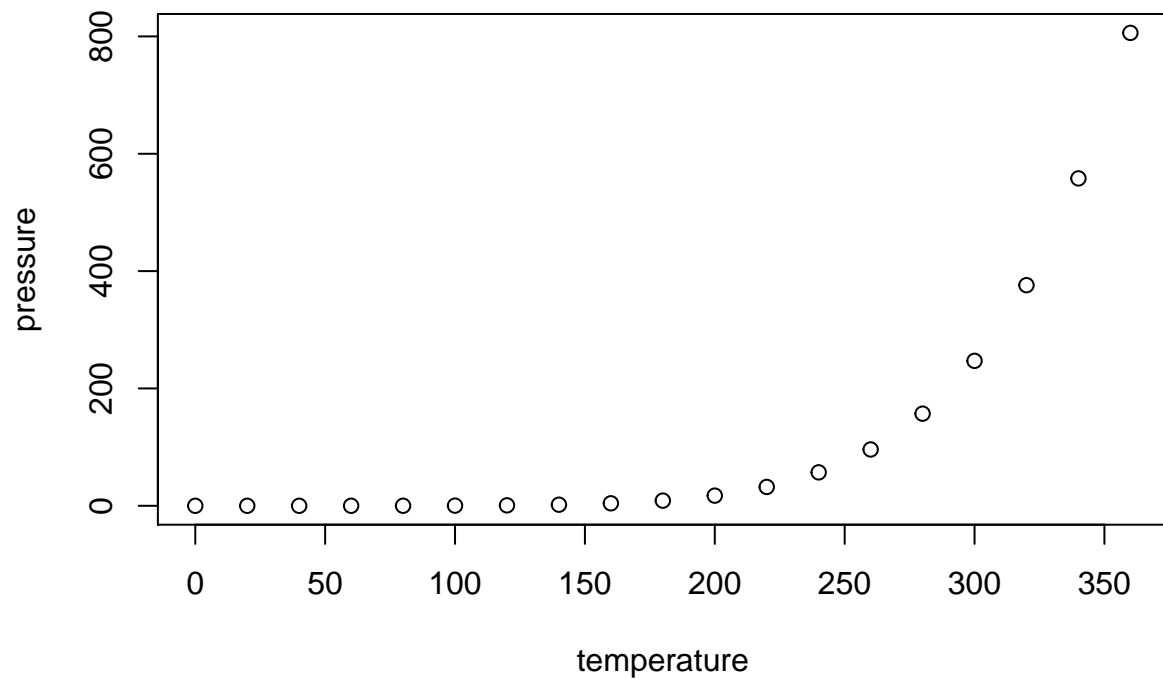
Replicating the Classifications

To replicate the classifications

Methods for Ties

Two Indices

Questions

Slide with Plot

Text goes here I think

References