



Diversity, Belonging, and Introductory Statistics

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Intro Stats Course Structure

- Mainly groupwork supported by some mini-lectures
- Group work starts on day 1
- Students worked with same group throughout entire semester
- Frequent, short tests (5/14-week semester)
- Textbook - *Introduction to Statistical Investigations* by Tintle et al., Wiley, 2016
- Online Homework (associated with textbook)
- Weekly Routine – new topic each week – students work in groups while instructor and LAs troubleshoot student difficulties, pose questions, check student understanding, and encourage group discussions.
 - Monday – intro activity designed by me
 - Wednesday – reading guide from textbook example discussed & additional practice
 - Friday – Exploration from textbook completed



Intro Activity – Diversity in Professional Sports

- ▶ Data from The Institute for Diversity and Ethics in Sport (TIDES – tidesport.org)
- ▶ “The Institute researches and publishes a variety of studies, including...the internationally recognized Racial and Gender Report Card, an assessment of racial and gender hiring practices in amateur, collegiate, and professional sports and the media.” (tidesport.org)
- ▶ Three main goals of activity:
 1. Introduce students to descriptive statistics for two proportions
 2. Bring awareness to the lack of diversity, especially in leadership roles, in professional sports (and other professions)
 3. Increase students’ sense of belonging in the classroom



Diversity in Professional Sports – Descriptive Stats for Two Proportions

- ▶ Segmented bar graphs, two-way tables, conditional proportions, associations
- ▶ Students compared conditional proportions through differences and relative risk and interpreted these in context
- ▶ Students used their data to support statements about associations



Diversity in Professional Sports – Awareness to Lack of Diversity

- Students chose which proportions they found interesting
- Comparisons made on a single year of data from the MLB and NFL
- Comparisons made based on longitudinal data to analyze “success” of diversity initiatives
- Students used their data to support statements about diversity in sports



Diversity in Professional Sports – Belonging in the Classroom

- ▶ This activity supports student belonging in the following ways:
 - ▶ Relevance – athleticism/fitness as an important value (Values Activity)
 - ▶ Include people like them – -athletes, persons of color
 - ▶ Involve their input in the topics – important value, student-athletes
 - ▶ Give students choices – choose the comparisons they are most interested in
 - ▶ Talk about Diversity, Equity, Inclusion, Justice, Belonging

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Student Responses

- Every group chose to compare at least one leadership position with another organizational position
- Groups pointed out the issues with leadership being one-sided and not representative of the players
- The relative risk for some of the comparisons was a huge eye-opener for some students
- Some student-athletes talked about how the lack of diversity in leadership could be both a deterrent and a catalyst



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