# Using The Shippensburg Corn Festival In The Introductory Statistics Classroom

## Grant L. Innerst

The Setting:

      Shippensburg University

      Shippensburg Corn Festival

Motivation

Data Collection

Activities

Takeaways

Shippensburg University

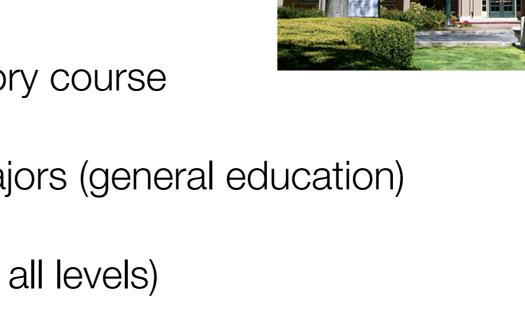Public university in South Central PA

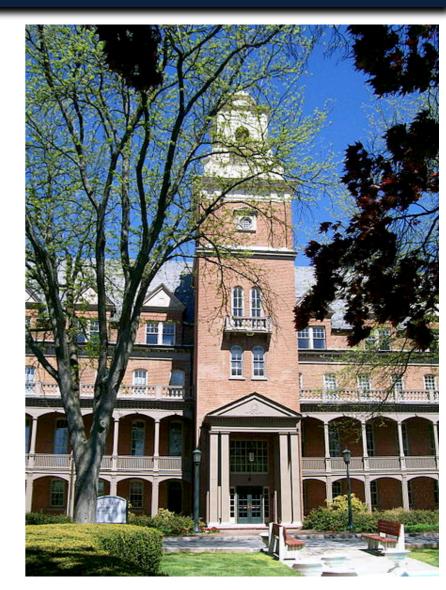~4000 undergraduates

The course:

MAT 117 - Applied Statistics

Non-calculus based introductory course

Primarily serves non-STEM majors (general education)

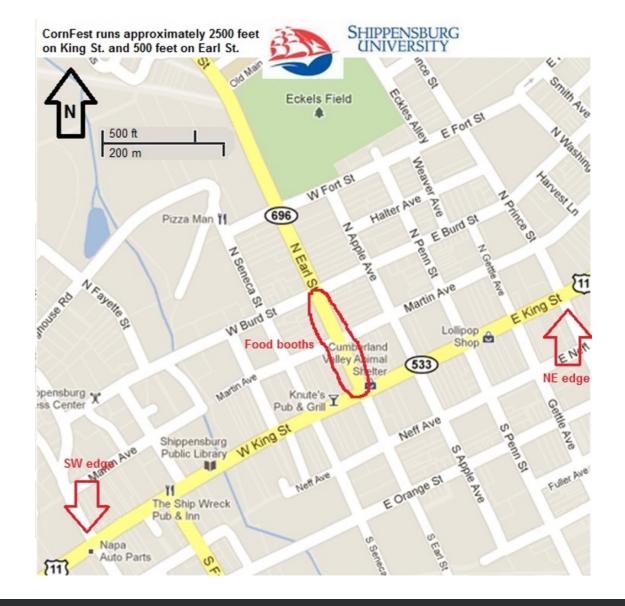~40 students per class (mix of all levels)

Shippensburg Corn Festival

Yearly street fair held during the last Saturday of August

Fairly large economic driver for the city and a big fundraiser event

Around 30,000 people attend

Shippensburg Corn Festival

# Motivation

Convenient

   Usually in-session by the last Saturday in August

   Within walking distance of campus

   Free!

Offers Meaningful Questions

   Organizers are interested in demographic info and preferences of attendees

   I'm interested in counting # of people who attend

# Motivation

Offers Meaningful Statistics Experiences

Survey creation (sort of)

Data collection in their community

Dealing with messy data

Analyzing data meaningful to them

Teams of 2 or 3 stationed throughout the fair, short shifts

Variables collected:

Age

Where they traveled from

Size of group

Have they been to the Corn Festival before? If so, how many times?

How long they usually stay at the festival

Do they walk the entire fair?

Do they eat at the fair?

Did they buy (or do they plan to buy) anything?

# Activities

Applicable throughout the course:

Group project that tasks the students with making a writeup that they could present to the Corn Festival organizers

Brainstorm other questions that the organizers might be interested in and what survey questions we could ask to answer those questions

Inference for estimating how long people stay at the event, does eating seem to affect how long people are staying, etc.

# Takeaways

Unique and easy-entry opportunity for students to interact with the community

Use with real data they have a connection with to enhance their learning

Challenges:

   Will it occur during the semester?

   How can I make logistics go smoothly?

   How do I incentivize students to participate without jeopardizing new relationships?

# Questions?