College Football Attendance Analysis

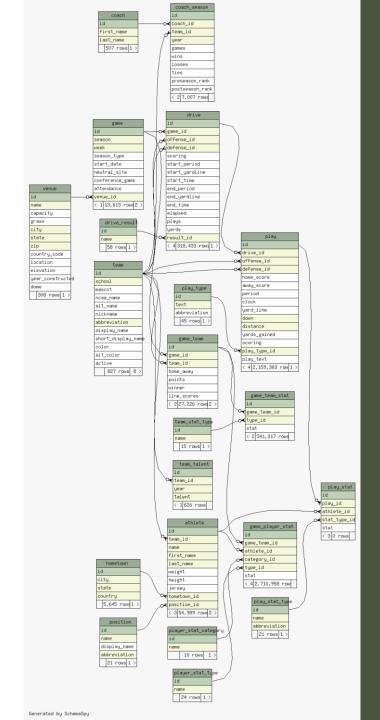
Tara Wilson

Data 512

Autumn quarter 2019

Data sources

- All sorts of NCAA college football data:
 - games
 - players
 - teams
 - rankings
 - coaches
 - & much more
- Accessed via Swagger API endpoint
- Weather data from NOAA



What factors drive attendance at college football games?

Relevant works

- Attendance is currently at a **22-year low**¹
- From 2004 to 2018, the average stadium capacity has fallen over 2,000 seats²
- Decline attributed to use of cell phones³, kickoff times, team success⁴ and many more reasons
- 2018 was the 7th time in the last 8 years that attendance has declined⁵

^{1:} https://techcrunch.com/2019/09/08/as-college-football-attendance-slumps-new-ways-to-ticket-may-hold-an-answer/

 $^{2: \}underline{https://www.npr.org/2019/08/24/753962604/attendance-drops-for-college-football}\\$

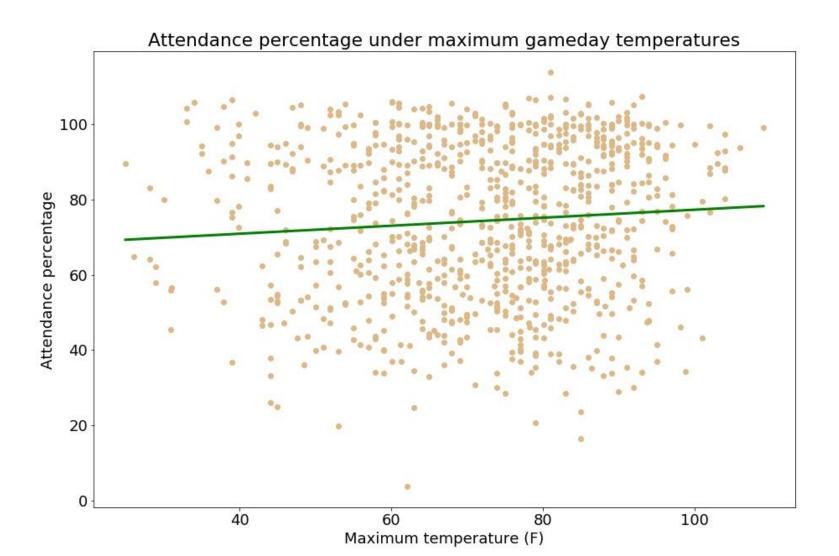
^{3: &}lt;a href="https://frntofficesport.com/college-football-attendance/">https://frntofficesport.com/college-football-attendance/

^{4:} https://www.offtackleempire.com/2019/7/24/20707199/millennials-terrible-phones-pat-fitzgerald-college-football-attendance-decline-big-ten-media-days

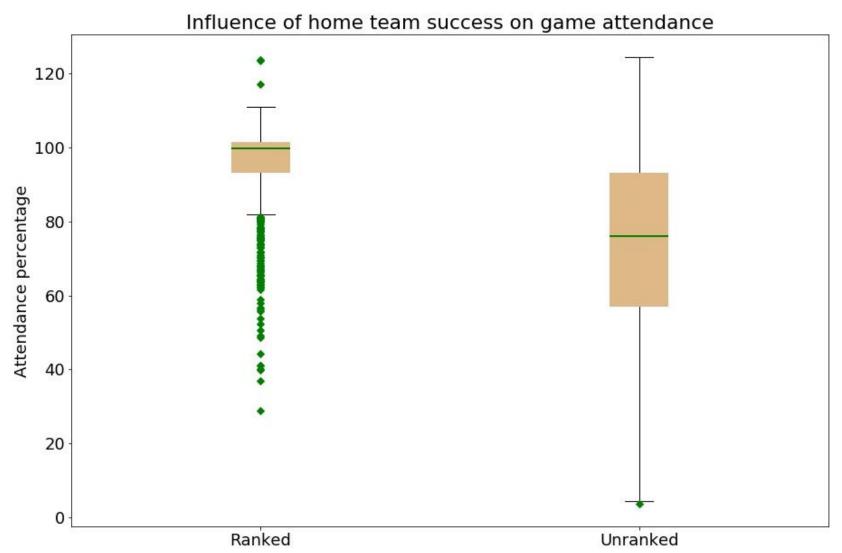
^{5:} https://fanbuzz.com/college-football/cfb-attendance-2019/

 $attendance\ percentage = \frac{game\ attendance}{stadium\ capacity}$

Nobody cares about the thermostat



Winning helps



If you build it, they will come

Smallest stadiums

Largest stadiums

Stadium name	Capacity	Average attendance
Jerry Richardson Stadium	15,314	86.1%
Kibbie Dome	16,000	76.2%
Warren McGuirk Alumni Stadium	17,000	69.4%
Foreman Field	20,118	100.0%
Houchens Industries – L.T. Smith Stadium	22,113	77.8%

Stadium name	Capacity	Average attendance
Bristol Motor Speedway	162,000	96.9%
Michigan Stadium	107,601	102.3%
Beaver Stadium	106,572	94.2%
Ohio Stadium	104,944	101.2%
Kyle Field	102,733	94.3%

