

## Sport Analytics Spring 2019

### Exercise 6: Competitive Balance

1. Derive the time series of three measures of competitive balance for the NBA and compare them (both graphically and using regression analysis) with Average Regular Season Attendance for the same period.

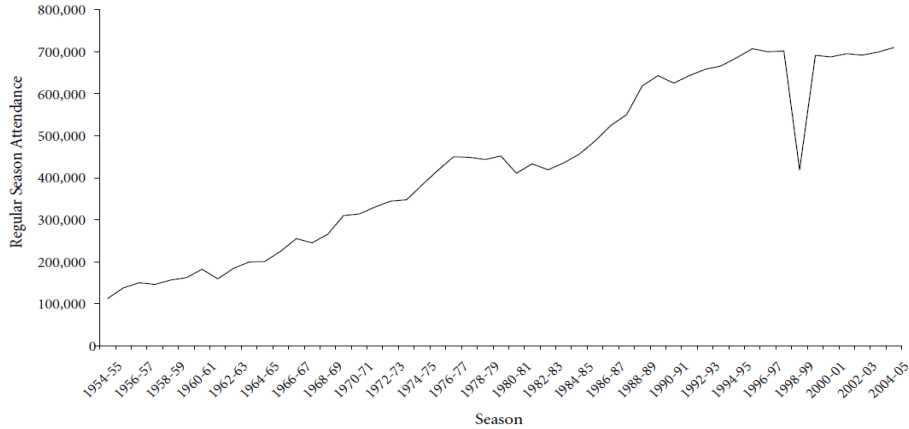


FIGURE 2.1. Average Regular Season Attendance, NBA, 1954–55 to 2004–05

TABLE 4.3  
*The Average Level of Competitive Balance for a Variety of  
Professional Team Sports Leagues*

League	Label	Sport	Years	Number of Observations	Average Level of Noll-Scully
Major League Soccer	MLS	Soccer	1996–2005	10	1.28
North American Soccer League	NASL	Soccer	1967–1984	18	1.34
French Ligue 1	FL1	Soccer	1976–2005	30	1.40
Spanish Primera Division	SPD	Soccer	1976–2005	30	1.42
German Bundesliga 1	GB1	Soccer	1976–2005	30	1.45
Italian Serie A	ISA	Soccer	1976–2005	30	1.58
English Premier League	EPL	Soccer	1976–2005	30	1.61
National Football League	NFL	American Football	1922–2005	84	1.56
American Football League	AFL	American Football	1960–1969	10	1.58
National Hockey League	NHL	Hockey	1917–18 to 2003–04	87	1.85
World Hockey Association	WHA	Hockey	1972–73 to 1978–79	7	1.89
National League	NL	Baseball	1901–2005	105	2.07
American League	AL	Baseball	1901–2005	105	2.13
National Basketball Association	NBA	Basketball	1946–47 to 2004–05	59	2.55
American Basketball Association	ABA	Basketball	1967–68 to 1975–76	9	2.60