Data: <https://www.kaggle.com/maxhorowitz/nflplaybyplay2009to2016#NFL%20Play%20by%20Play%202009-2017%20(v4).csv>

CSV: NFL Play by Play 2009-2017 (v4)

3a) With the NFL becoming such a pass heavy league it is important for the defense to generate pressure on the QB. What team from each season (2009 – 2017) generated the Highest % of QB hits per pass play?

* (MIN,2009,0.15924657534246575)
* (NYG,2010,0.16013628620102216)
* (HOU,2011,0.17495711835334476)
* (HOU,2012,0.1653290529695024)
* (HOU,2013,0.19111969111969113)
* (HOU,2014,0.1689497716894977)
* (DEN,2015,0.1842948717948718)
* (MIN,2016,0.18057921635434412)
* (PIT,2017,0.18592057761732853)

3b) Quarterbacks are often judged by how well they perform in clutch situations. For this question we will look at the QB who has performed the best in clutch situations over all seasons in the dataset (2009 – 2017).

We will define a clutch situation as the following:

* Quarter = 4
* Time Remaining in Game is under 4 minutes and over 49 seconds
* The QB’s team is either tied or losing by 8 points or less

A successful performance is defined as:

* The QB’s team scored a touchdown or made a field goal

Who has been the most ‘clutch’ QB over the past 8 seasons (minimum 8 clutch situation)?

* Derek Carr ( 50% success rate over 20 clutch situations).

3c) In the game of football, it is important for a team’s defense to stop an opposing offense and give their team the ball back. Stopping a team on third down typically leads to a team getting the ball back. Knowing an opposing teams play calling tendencies in different situations can greatly benefit a defense. For this question we will look at the play calling tendencies for offenses during the 2017 season when it is third down and 4 or less yards to go. We will focus on neutral situations during the game since there are certain points during the game that teams will most likely always be passing or running. For the purposes of this question a neutral situation will be anytime during the first and third quarters, anytime in the second quarter greater then 3 minutes left in the quarter, and anytime in the fourth quarter greater than 5 minutes left in the quarter. In 2017, what team had the highest percentage of runs on third down and short? What team had the highest percentage of passes on third down and short (play type ‘Sack’ should be included in passes)?

* + Buffalo called the highest percentage of run plays on 3rd and short at 51.6%.
  + Minnesota called the highest percentage of pass plays on 3rd and short at 79.4%.