

1116-VP-2176 **Victor Villalpando*** (victor.villalpando01@utrgv.edu), School of Mathematical and Statistical Sc., The University of Texas Rio Grande Valley, 1201 West University Drive, Edinburg, TX 78539. *A Statistical Study to determine the criteria for winning in Mixed Martial Arts for the Ultimate Fighting Championship (UFC)*. Preliminary report.

Mixed Martial Arts is the fastest growing sport with many organizations world wide. The biggest stage or biggest organization for mixed Martial Arts is the Ultimate Fighting championship(UFC). There are eight weight classes for men. The website www.fightmetric.com provides data on fighters in all these categories. This data measures aggression, octagon control, striking accuracy, take downs, reversals, knockout, etc.in each category. It is interesting to understand and interpret all these numbers and study their relationships. Statistical tools like both parametric and non parametric inference may give rise to such interpretations and provide explanations why a certain fighter is better than another in terms of aggression, octagon control etc.In this study we have selected 30 fighters per weight class and will do some comparative study among these fighters in terms of their strengths and weaknesses using regression, ANOVA, and non parametric techniques etc. We are also planning to do some Bayesian statistical study based on prior information about the fighters and there by obtaining posterior distribution. We believe that our study will give rise to many striking insights, which may be of help for future research. (Received September 22, 2015)