## USAWA Comparing Performances

The USAWA is a very welcoming organization. Athletes can compete and compare themselves in separate Men's and Women's fields and four different age categories. The Open division is a combination of the Senior and Master's division, more on that later.

- Junior - 19 and under
- Senior - 20 to 39
- Open - Over 20
- Master - 40 and Over (subdivided into 5 year age groups)

Olympic Weightlifting and Powerlifting both have a long history of comparing athletes in different weight classes to determine an overall winner. The scientific basis is that more bodyweight = more muscle cross section = heavier lifts. The actual math is based on coefficients and the power law. For the layperson, bodyweight is entered, and the formula generates a correction factor. The correction factor is multiplied by the total weight lifted to get a corrected weight lifted.
"Aging and Strong" is a series of articles by Dan Wagman that present the scientific case for a decline in athletic performance with age. For the layperson, a person develops more muscle mass as their bodies grow and develop to a peak in muscle mass, followed by an inevitable decline as a person ages. Greater lean muscle mass = heavier lifts.

The USAWA correction factors have made it a lot of fun for the men's field to compare themselves to determine an overall male winner. A 12 year old 35 kg boy can battle it out with a 25 year old 90kg man and an 85 year old 75 kg man. The women's field is significantly smaller, often with no entrants or a single entrant.

The origin and evolution of corrections is a whole series of articles that I hope to write on. At this first pass, I will only offer that the weight corrections are often based on world class athletes and world records for federation weight classes. Age corrections assume a peak performance age and apply a bonus to lifters below that age and above that age. None of the statistics are perfect.

Returning to the Open age class. If an Open class is offered and an athlete chooses to compete in it, the athlete will not receive an age correction to their lifts. They will still receive a weight correction.

Women could be compared to men with a correction factor. The correction should account for women physiologically having a greater body fat percentage than men. It should also correct for women physiologically having less upper body muscle cross sections than men of the same bodyweight.

Lifts could also be compared to other lifts to determine if a given Bench Press - Feet in Air is more impressive than a given Clean \& Press, 12 Inch Base. This becomes infinitely more complicated due to the large number of lifts contested in the USAWA and the less direct scientific basis for records being higher in certain lifts.

The mission of the USAWA is to preserve the history of the original forms of weightlifting. The age and weight corrections seem to attract and maintain engagement from athletes of all ages and sizes. The USAWA is a strength organization, but we are not truly contesting maximum muscular strength in any given sanctioned event.

