

NOTES ON THE 2012 TOTALS
Junior World Championships (JWC)

For the past several years, we have created selection procedures for the JWC by attempting to average totals from 1st through 25th place at the prior two or three JWC. Unfortunately, in most cases, one or all of such years were missing totals for many places, so totals had to be projected by means such as reducing the totals by a rather arbitrary 1 kg. per place, and such totals were weak predictors of future performance. In an effort to improve our selection approach, we have conducted a thorough analysis of Senior and Jr. WC performances over the past five years. We learned that, on average, JWC totals are approximately 90% of WC totals, at the medal winning level (for a fuller explanation of that analysis, please see the two pages that follow this one).

Consequently, this year, we decided to use totals at 90% level of WC medal winning performance (presented in the table below) as the basis for comparing the results of juniors in various bodyweight categories for Junior World Team selection. Here is how it will work:

1. Actual competition results, for third place in all bodyweight categories at the 2007 through 2011 WC/OG were averaged to project “medal winning” capability for senior athletes (the same approach that was used to generate the Olympic Team selection totals).
2. 90% of those totals were calculated, rounded to the nearest .1kg.
3. Projected placement for JWC selection purposes will be based on the relationship of an athlete’s highest total in a qualifying event to the totals shown in the table below. For example, a female athlete who totals 250 kg. in the 75+ bodyweight category will be at 96.45% of the standard in her category. A female athlete who totals 195 kg. in the 58 kg. category will be at 96.06%, so will be ranked slightly lower than the athlete in the 75+ kg. category

Gender	Bodyweight Category	Total
F	48	176.9
F	53	189.5
F	58	203.0
F	63	216.2
F	69	224.3
F	75	244.3
F	75+	259.2
M	56	251.3
M	62	276.7.
M	69	299
M	77	324.4
M	85	338.2
M	94	355.9
M	105	369.2
M	105+	392.9

Funding will be determined and announced when we finalize our 2012 budget.

Further Details On The Derivation Of The Above Ranking Approach

In the recent past, qualification totals for the Junior World Championships (JWC) and many other major international events were derived by attempting to average totals down to 25th place from the prior 2-3 years of that competition. There are several major problems with such an approach. First, averaging two or three years (sometimes only one) resulted in projected placement totals that fluctuated significantly from year to year, and situations in which the average total for a given place was actually higher than the total for a higher place. Second, there were also frequent instances in which the average total for a particular place in a particular category was higher than the total for the same place in a higher bodyweight category. Third, and most problematic, is that in many instances no totals were available for a particular place in a particular category, even across three years, because there were no totals made for that place in any of the years used for the average.

For instance, looking at the most recent five World Championships (Olympic Games in 2008, when there was no WC), the women's 58 kg. category saw 12 finishers in 2009 but 25 or more in 2007, 2010 and 2011. If the OG are brought in, there were only eight competitors in the women's 69 kg. category at the 2008 Olympic Games, but there were 19 in 2009 and 25 or more in 2007, 2009 and 2011.

The men have a higher level of participation in WC (and OG). Nevertheless, among the men, there were only 16 competitors and the 56 bodyweight category in 2009 and 16 in the 2008 OG, but the 56 kg. category had 25 or more competitors in 2010 and 2011. The 77 kg. category had 25 or more competitors in 2007 and 2009 through 2011 (even the OG of 2008 saw 24 finishers). So even if you look at the WC, the most well attended international event in world, there are many instances of missing totals at the lower places.

After the WC, it is difficult, if not impossible, to use actual data to develop totals that predict placement throughout the full range of point scorers. This is because outside the WC, attendance is so varied, and sometimes so limited, that there is simply no data worth using for the lower placements.

As an example, consider the past five years at the JWC (by far the most well attended of the rest of the international events we participate in routinely). Total finishers have ranged from a low of 6 to a high of 19 in the women's categories, and the spread even in the same category has been as large as from 6 to 16 (75 kg. category). Among the men, participation has ranged from 10 to 25 or more, with a spread of 10 to 24 in the same category (105). So we cannot predict, except in very wide ranges, even how many will compete in any bodyweight category in any year, let alone what they will total.

For the Pan Am Championships/Games, the picture is even more variable, with a low of 3 competitors in one bodyweight category over the past five years and a high of 20 (with a range of 3 to 15 even in the same category). On the World University level, there is still greater variation (a low of 1 to a high of 20, and range of 4 to 17 in the same category). Finishers in the new YWC have actually been a little more stable, ranging from 8 to 25 over the 2009 and 2011 years.

This lack of actual totals led to our projecting (often rather arbitrarily) many placement totals (e.g., using 1 kg. less than the placement above). All of these issues combined led to significant fluctuations in qualifying standards from year to year and little correspondence between the totals calculated and placements actually achieved. It is generally hard to even predict how many will compete, let alone what those who do compete will total in the lower places. How can these problems be addressed?

One approach might have been to simply use more years of results to project placements. However, a study of WC results over the past 14 years (the number of years since the most recent bodyweight categories were adopted by the IWF) shows that average totals for all places have tended to change over time, with the men's totals declining slightly and the women's totals increasing significantly. Therefore, using too many years of results brought in totals that were outmoded. On the other hand, using a small number of years generated significant fluctuations in totals that appeared to be unrelated to actual trends.

After trying many approaches, we settled on five years as representing a good balance between reflecting the current levels of performance and smoothing out results. We further found that third place was a good place to average, both because it represented the minimum level of medal performance and because it was rare in any competition to not have at least half a dozen competitors and extremely rare not to have at least three.

We learned that the medal winning performances and Jr. Worlds, Pan Am Champs/Games, World University Championships and Youth World Championships have a reasonably consistent relationship across bodyweight categories to the WC/OG medal winning performances. For instance, on average, the totals at the Jr. World Championships were a little under 90% of the totals at the WC/OG (3rd place over the past 5 years, both genders combined). As a side note, the YWC totals average just over 75% of the WC totals.

We also used all of the information we had gathered during our analysis to create an athlete classification system similar to what the old USSR (and USAW) had at one time. In the modern version, the top level of athlete is provisionally categorized (we would be happy to receive suggestions regarding nomenclature) as "Merited International Elite" (which translates loosely to medal winning caliber). The classification system totals drop by 5% per class, so that "International Elite" (the second classification level) is achieved by reaching 95% of the medal winning level and "International" (the third classification level) is achieved by reaching 90% (85% is "National Elite", 80% is "National" and 75% is "Candidate for National"). On the Junior level, the highest ranking is "Junior Merited International Elite" and that level is achieved by making 90% of the Merited International Elite (senior total). Similarly, the youth age athlete who reaches 75% of the aforementioned Merited International Elite standard will be considered "Youth Merited International Elite". More about this new program will be announced soon.