

# Australian Qualification & Grade scale investigation report

(Adjusted clerical error in Men's 77kg category recommended scale on 09 August 2010)

## PREAMBLE

Following widespread discussion in 2009 the Australian Weightlifting Federation's (AWF) High Performance Committee asked me to investigate the basis of the current systems of qualifying for National Championships and International Teams.

The current (2010) qualifying figures are as follows:

### CURRENT SCALES - MEN

#### SENIOR

	<b>56</b>	<b>62</b>	<b>69</b>	<b>77</b>	<b>85</b>	<b>94</b>	<b>105</b>	<b>+105</b>
<b>Senior Elite</b>	230	248	271	300	323	339	340	363
<b>Senior International</b>	223	239	263	290	312	328	329	351
<b>National</b>	192	206	227	250	269	283	284	302

#### JUNIOR

	<b>56</b>	<b>62</b>	<b>69</b>	<b>77</b>	<b>85</b>	<b>94</b>	<b>105</b>	<b>+105</b>
<b>Junior Elite</b>	199	230	247	260	278	288	300	307
<b>Junior International</b>	182	210	226	237	255	263	274	281
<b>National</b>	149	172	185	195	209	216	225	230

#### YOUTH

	<b>50</b>	<b>56</b>	<b>62</b>	<b>69</b>	<b>77</b>	<b>85</b>	<b>94</b>	<b>+94</b>
<b>Youth International</b>	108	112	129	139	146	157	162	171
<b>National</b>	96	100	115	124	130	139	144	152

### CURRENT SCALES - WOMEN

#### SENIOR

	<b>48</b>	<b>53</b>	<b>58</b>	<b>63</b>	<b>69</b>	<b>75</b>	<b>+75</b>
<b>Senior Elite</b>	156	167	179	187	194	201	225
<b>Senior International</b>	151	161	173	181	187	194	218
<b>National</b>	130	139	149	156	161	167	188

#### JUNIOR

	<b>48</b>	<b>53</b>	<b>58</b>	<b>63</b>	<b>69</b>	<b>75</b>	<b>+75</b>
<b>Junior Elite</b>	138	147	162	163	177	178	190
<b>Junior International</b>	125	133	148	149	161	162	173
<b>National</b>	103	109	121	122	133	134	142

#### YOUTH

	<b>44</b>	<b>48</b>	<b>53</b>	<b>58</b>	<b>63</b>	<b>69</b>	<b>+69</b>
<b>Youth International</b>	69	77	82	91	92	99	103
<b>National</b>	60	69	73	81	82	88	92

My understanding is that criticisms made about this system include a belief that some of the steps, especially from senior elite to senior international are uneven, and that it may be too difficult to qualify for some national championships or lesser internationals.

In undertaking the following analysis I would first like to put on record my thanks to the system's architect, Lyn Jones, for his work in formulating and maintaining these qualification scales.

## THE CURRENT SYSTEM

The senior elite figures (qualifying for Australian teams to World Championships) are based on 90% of the rolling three year average of tenth place at the three immediately preceding World Championships, in the belief that this is an accurate predictor of twenty-fifth place at World Championships – which is the placing where athletes start to gain points for their national team, and for such purposes as qualifying athletes for participation in Olympic Games. Junior qualification is similarly based on the Junior World Championship results. Youth qualification was arbitrarily selected (based on Junior World Championships results), as there were then no Youth World Championship conducted.

It is, of course, the prerogative of the AWF's Executive Board to judge the philosophical validity of this system. However, in my view, this approach has considerable merit as there can be no doubt that, as well as our desire to qualify as many lifters as possible for Olympic Games, Government funding bodes will not look too kindly on us if we cannot continue to place our competitors in point winning situations. I believe it would be foolish, and possibly contradictory, to base selection on the highest level on World Championship performances and then to build other qualification levels on some other base. In any case the only other obvious system – the Sinclair Formula – has itself built into it various possibly untrue assumptions when applied to anything except the World Records and, like all systems, has a margin of error. My separate analysis suggests that the potential variability of judgement built into the Sinclair system is of at least the order of magnitude to that of the variability of the average of the top-ten placed senior lifters at the last three World Championships.

The table below is a summary of where the current scales would place athletes at the respective World Championships.

Percentage of Senior Elite	Current name	Projected place at Senior Worlds		Projected place at Junior Worlds		Projected place at Youth Worlds (*)	
		Men	Women	Men	Women	Men	Women
100	Senior Elite	20-25+	15-25	5-10	5-10	5-10	5-10
96.65	Senior International	>25	20-25	10-15	5-10	5-10	5-10
87	Junior Elite	NA	>25	15-20+	10-15	10-15	5-10
83.33	Senior National	NA	NA	15-20+	10-15	15-20	10-15
78	Junior International	NA	NA	>20	>15	15-20+	10-15
65	Junior National	NA	NA	NA	NA	>>20	15+
50	Youth International	NA	NA	NA	NA	>>20	>>15
45	Youth National	NA	NA	NA	NA	NA	NA

\* *Based only on 2009 Youth World Championships.*

## THE FUTURE?

As you will see in the appendices to this paper, I have found that these rolling percentages are generally stable and a good predictor of twenty-fifth place (or above) at the respective World Championships.

Consequently, for the future, I make:

#### RECOMMENDATION 1

***Calculate (Senior) Elite as done presently (that is, 90% of the average of 10<sup>th</sup> place at the last three World Championships).***

The data in the appendices indicate that the variability in this index, from weight class to weight class and from year to year is relatively minor. It has been my observation that making minor annual changes (up or down a few kilograms in each weight category) have led to some confusion, and to inevitable delays as the AWF must await the final (that is, post drug test outcome) results of World Championships in the previous year, meaning that sometimes final scales are not known until February/March the year in which they apply.

Given the stability of the rolling averages, and because there is no World Championships in Olympic Games years (meaning that the scale for the year following the end year of each Olympiad can be known by mid-year of the Olympic Games year), I make:

#### RECOMMENDATION 2

***Lock the qualification scale in for four years at a time – specifically for each Olympiad (i.e. 2011-2012, 2013-2016, etc.). Re-calculate the scale only at the end of each Olympiad.***

Furthermore I have found that, within the bounds of the natural variability in the rolling Senior World Championship averages, the Junior World Championships averages are essentially fixed percentages of the Senior World Championships averages. Moreover the variations (seemingly random – due to failures of athletes to Total, where the events were held, etc.) that do occur in the Senior World and Junior World results/averages sometimes temporarily move in opposite directions – although, as I've said before, the long-term averages seem remarkably stable.

It is too early to have any meaningful averages for the Youth World Championships.

Hence,

#### RECOMMENDATION 3

***Adopt a unified scale, based only on Senior World Championships results (as outlined above) and per the following suggested scale.***

<b>Percentage of Senior Elite</b>	<b>Proposed Name</b>	<b>Proposed purpose</b>
100	Elite	Senior Elite (Senior World Championship qualifying standard)
90	International	Senior International (Qualifying for lesser Senior Internationals)
82.5	A Grade	Senior National (Qualifying for Senior National Championships) Junior Elite (Qualifying for Junior World Championships)
75	B Grade	Junior International (Qualifying for lesser Junior Internationals)
65	C Grade	Junior National (Qualifying for Junior National Championships) Youth Elite * (Qualifying for Youth World Championships)
55	D Grade	Youth International * (Qualifying for lesser Youth Internationals)
45	E Grade	Youth National (Qualifying for Youth National Championships)

NOTE: \* These proposed youth athlete qualifying standards are speculative, as only one Youth World Championships has been held. Perhaps, in the same fashion as seniors and juniors, youths would qualify for World Championships via Youth Elite and other possible international matches with Youth International?

This scale has more even graduations than the existing scheme, whilst maintaining essentially the same potential World Championship level of placing for junior athletes. (The senior World Championships potential placings are, of course, unchanged.) It would also provide a small reduction in the qualifying standards for National Senior and Junior Championships, leading to greater participation levels – which has been another criticism I have frequently heard.

Additionally, it would be my hope that States and Territories would adopt appropriate levels on this scale as qualifying standards for their domestic competitions – which could lead to a more widespread use of this method as an athlete development stimulus throughout Australia.

Whilst I am confident that the current data suggests a stable relationship between junior and senior World Championship results, it is prudent that this relationship be continuously studied. If there are significant changes in the relationship evident the future values of qualifying levels can be easily adjusted at the end of each Olympiad.

Consequently,

#### RECOMMENDATION 4

***Monitor that the historical percentages achieving particular places, and their interrelationships, at Senior, Junior and Youth World Championships do not alter significantly.***

If the High Performance Committee wishes I would be happy to carry out such monitoring and report on any potential changes that may occur.

It is imperative in my view, as now, that heavier weight categories have higher qualification standards than lower categories. My analysis suggests that this will happen more frequently naturally with my proposed system, but there will still be occasions (especially with the higher bodyweight women's categories) where a raw calculation will not lead to this outcome.

Consequently,

#### RECOMMENDATION 5

***Maintain the current policy that each standard must be at least 1kg above the one in the lower weight category.***

Finally, in the current system, when calculating qualifying figures from World Championships rolling averages, the standards have been mainly rounded to the nearest whole number (although there have been a few cases where they seem to have been rounded down or up against this normal practice.) I believe that rounding up in some categories and rounding down in others introduces a small element of inequity.

Consequently,

#### RECOMMENDATION 6

***Round all weights obtained by the application of the qualification and grading scale system down to the nearest whole number, rather than the current practice of rounding to the nearest whole number.***

If all of my recommendations are adopted we get:

## PROPOSED SCALES - for 2011 - 2012

### MEN

	50	56	62	69	77	85	94	+94	105	+105
Elite	---	228	258	274	306	319	338	---	344	355
International	---	205	232	246	275	287	304	---	309	319
A Grade	---	188	212	226	252	263	278	---	283	292
B Grade	---	171	193	205	229	239	253	---	258	266
C Grade	134	148	167	178	198	207	219	226	223	230
D Grade	113	125	141	150	168	175	185	192	189	195
E Grade	92	102	116	123	137	143	152	156	154	159

### WOMEN

	44	48	53	58	63	69	+69	75	+75
Elite	---	153	170	177	195	201	---	202	223
International	---	137	153	159	175	180	---	181	200
A Grade	---	126	140	146	160	165	---	166	183
B Grade	---	114	127	132	146	150	---	151	167
C Grade	90	99	110	115	126	130	137	131	144
D Grade	76	84	93	97	107	110	116	111	122
E Grade	61	68	76	79	87	90	95	91	100

*It should be noted that the Elite figures are what the AWF will have anyway in 2011, as per the existing policy, with the exception of perhaps a one kilogram difference in a few categories due to my recommendation six.*

Additionally I point out that, regardless of the number of lifters who may qualify for a particular potential Australian team, it remains the responsibility of the AWF's Executive Board to determine to which events Australia will actually send teams, and to decide the maximum number of athletes who can be funded on each team. There have been many cases in the past of more qualifying than the previously laid down maximum number of lifters who will be selected and funded. Obviously then a formal policy needs to be adopted as to which 'qualified' lifters actually get to go – for example, as has been done a number of times, who has the greatest percentage above the minimum qualifying figure.

Respectfully submitted,



Michael Noonan  
16/06/2010

# APPENDICES

## WORLD CHAMPIONSHIP PLACING TOTALS - SENIOR MEN

10th place	3 Year		3 Year		3 Year		3 Year		3 Year		3 Year		3 Year	
	56	Aver.	62	Aver.	69	Aver.	77	Aver.	85	Aver.	94	Aver.	105	Aver.
2001	245.0		280.0		320.0		330.0		350.0		375.0		400.0	+105
2002			277.5		317.5		320.0		365.0		367.5		400.0	392.5
2003*	257.5	251	280.0	279	317.5	318	337.5	329	365.0	360	377.5	373	395.0	398
2005	253	255	257	272	294	310	320	326	365	365	378	374	363	386
2006*	262	258	280	272	299	304	337	332	355	362	377	378	385	381
2007*	253	256	290	276	312	302	342	333	356	359	375	377	383	377
2009	246	254	292	287	305	305	344	341	355	355	376	376	380	383

15th place	Average of								10th place	Standard Deviation	Rolling three-year average
	56	62	69	77	85	94	105	+105			
2001			300.0		310.0	340.0	385.0		92%	3%	
2002			300.0		352.5	327.5	370.0	357.5	93%	3%	
2003*	250.0	267.5	310.0	330.0	352.5	365.0	385.0	395.0	97%	1%	94%
2005	232		267	310	331	359		355	92%	3%	94%
2006*	248	276	290	329	343	361	365	370	96%	1%	95%
2007*	247	280	305	335	351	369	375	376	97%	2%	95%
2009	232	273	277	331	333	257	355	378	91%	9%	95%

20th place	Average of								10th place	Standard Deviation	Rolling three-year average
	56	62	69	77	85	94	105	+105			
2001			250.0				352.5		83%	5%	
2002			280.0		310.0		332.5	325.0	85%	2%	
2003*	242.5	255.0	305.0	302.5	345.0	355.0	365.0	377.5	93%	2%	87%
2005				293	310	332			88%	3%	89%
2006*	235	264	278	325	338	349	351	352	93%	2%	91%
2007*	235	274	297	328	343	362	365	370	95%	2%	92%
2009		262	257	315	248	340			85%	8%	91%

25th place	Average of								10th place	Standard Deviation	Rolling three-year average
	56	62	69	77	85	94	105	+105			
2001							325.0		81%	NA	
2002									NA	NA	
2003*	232.5	245.0	290.0	260.0	337.5	335.0	340.0	350.0	87%	5%	84%
2005						270			71%	NA	79%
2006*	215	259	255	320	328	340			90%	4%	83%
2007*		270	295	326	335	350	336	343	92%	4%	84%
2009		259		280					85%	4%	89%

NOTES: \* indicates that this championships was used as a team Olympic qualifying event.  
 indicates that there were not this number of competitors who placed.

## CURRENT (2010) SENIOR MEN'S QUALIFYING TOTALS

	56	62	69	77	85	94	105	+105
Elite	230	248	271	300	323	339	340	363
%	91%	86%	89%	88%	91%	90%	89%	92%
Senior International	223	239	263	290	312	328	329	351
%	88%	83%	86%	85%	88%	87%	86%	89%
National	192	206	227	250	269	283	284	302
%	76%	72%	74%	73%	76%	75%	74%	77%

*NOTE: % = percent of the average of the 10th place at the last three world championships*

## PROJECTED 2011 SENIOR MEN'S QUALIFYING TOTALS USING CURRENT AWF POLICY

(using Worlds results in 2006, 2007, 2009)

	56	62	69	77	85	94	105	+105
Elite	228	258	274	306	319	338	344	355
Senior International	220	249	265	296	309	327	332	343
National	190	215	229	255	266	282	287	296

*NOTE: Except for the recreation of the 2009 data the qualifying Totals are rounded down.*



## WORLD CHAMPIONSHIP PLACING TOTALS - SENIOR WOMEN

10th place	3 Year		3 Year		3 Year		3 Year		3 Year		3 Year		3 Year	
	48	Aver.	53	Aver.	58	Aver.	63	Aver.	69	Aver.	75	Aver.	+75	Aver.
2001	152.5		175.0		185.0		195.0		212.5		220.0		235.0	
2002	140.0		172.5		192.5		182.5		207.5		205.0		242.5	
2003*	167.5	153	187.5	178	200.0	193	212.5	197	227.5	216	235.0	220	255.0	244
2005	172	160	178	179	193	195	201	199	207	214	220	220	242	247
2006*	167	169	185	184	197	197	209	208	214	216	224	226	252	250
2007*	180	173	193	185	206	199	215	208	225	215	226	223	255	250
2009	164	170	189	189	190	198	229	218	233	224	217	222	237	248

15th place	Average of							10th place	Standard Deviation	Rolling three-year average
	48	53	58	63	69	75	+75			
2001		140.0	152.5	180.0	190.0	170.0		85%	6%	
2002		137.5	180.0		165.0		212.5	85%	6%	
2003*	160.0	175.0	197.5	205.0	207.5	217.5	227.5	94%	3%	88%
2005	154			172		187	205	86%	2%	88%
2006*	160	175	189	205	204	214	238	96%	1%	92%
2007*	166	183	194	204	213	213	236	94%	1%	92%
2009		160		218	206	183	218	89%	4%	93%

20th place	Average of							10th place	Standard Deviation	Rolling three-year average
	48	53	58	63	69	75	+75			
2001				150.0				77%	NA	
2002			165.0					86%	NA	
2003*	150.0	162.5	190.0	202.5		212.5	217.5	90%	4%	84%
2005								NA	NA	88%
2006*	131	170	183	194	195		223	89%	5%	90%
2007*	158	177	190	197	200	207	232	91%	2%	90%
2009				188				82%	NA	87%

25th place	Average of							10th place	Standard Deviation	Rolling three-year average
	48	53	58	63	69	75	+75			
2001								NA	NA	
2002								NA	NA	
2003*		137.5	180.0	192.5		195.0	200.0	83%	7%	83%
2005								NA	NA	83%
2006*		152	170	165	168		205	81%	3%	82%
2007*	153	170	177	185	185	183	218	85%	2%	83%
2009								NA	NA	83%

NOTES: \* indicates that this championships was used as a team Olympic qualifying event.  
████████ indicates that there were not this number of competitors who placed.

## CURRENT (2010) SENIOR WOMEN'S QUALIFYING TOTALS

	48	53	58	63	69	75	+75
Elite	156	167	179	187	194	201	225
%	92%	88%	91%	86%	87%	90%	91%
Senior International	151	161	173	181	187	194	218
%	89%	85%	88%	83%	83%	87%	88%
National	130	139	149	156	161	167	188
%	76%	74%	75%	72%	72%	75%	76%

NOTE: % = percent of the average of the 10th place at the last three world championships

## PROJECTED 2011 SENIOR WOMEN'S QUALIFYING TOTALS USING CURRENT AWF POLICY

(using Worlds results in 2006, 2007, 2009)

	48	53	58	63	69	75	+75
Elite	153	170	177	195	201	200	223
Senior International	148	164	171	189	194	193	215
National	127	141	148	163	168	166	186

NOTE:        These would increase to 1kg more than the lower category.

## RE-CREATE 2009 SCALE (as check that system is correctly interpreted)

	48	53	58	63	69	75	+75
Elite	156	167	179	188	194	201	225
Senior International	151	161	173	181	187	194	217
National	130	139	149	156	161	168	187

NOTE: Except for the recreation of the 2009 data the qualifying Totals are rounded down.

## WORLD CHAMPIONSHIP PLACING TOTALS - JUNIOR MEN

3rd place	3 Year	3 Year	3 Year	3 Year	3 Year	3 Year	3 Year	3 Year	3 Year	3 Year	3 Year	3 Year	3 Year			
56	Aver.	62	Aver.	69	Aver.	77	Aver.	85	Aver.	94	Aver.	105	Aver.	+105	Aver.	
2001	237.5		280.0		305.0		335.0		352.5		365.0		367.5		385.0	
2002	260.0		260.0		322.5		337.5		352.5		365.0		380.0		390.0	
2003	242.5	247	275.0	272	317.5	315	355.0	343	352.5	353	370.0	367	367.5	372	382.5	386
2004	250.0	251	272.5	269	315.0	318	327.5	340	352.5	353	367.5	368	362.5	370	377.5	383
2005	272	255	272	273	316	316	333	339	357	354	364	367	380	370	376	379
2006	268	263	288	278	310	314	335	332	359	356	386	373	369	371	395	383
2007	266	269	300	287	313	313	335	334	351	356	354	368	382	377	346	372
2008	238	257	272	287	302	308	318	329	337	349	363	368	376	376	406	382
2009	243	249	290	287	313	309	321	325	357	348	364	360	366	375	399	384

10th place	Average of								3rd	Standard	Rolling
56	62	69	77	85	94	105	+105	place	Deviation	three-year	
										average	
2001	210.0	260.0	287.5	320.0	330.0	330.0	320.0	342.5	91%	3%	
2002	220.0	237.5	260.0	305.0	300.0	330.0	352.5	322.5	87%	4%	
2003	215.0	250.0	272.5	317.5	315.0	340.0	300.0		88%	3%	89%
2004	190.0	240.0	280.0	310.0	330.0	320.0	325.0	325.0	88%	5%	88%
2005	234	250	293	305	329	303	332	337	89%	3%	89%
2006		270	278	298	332		325		89%	4%	89%
2007	226	254	279	310	320	315	337	290	88%	3%	89%
2008	222	248	281	273	313	321	331	350	90%	3%	89%
2009	219	244	278	296	325	342	280	354	88%	5%	89%

15th place	Average of								3rd	Standard	Rolling
56	62	69	77	85	94	105	+105	place	Deviation	three-year	
										average	
2001		252.5	277.5	305.0	307.5	297.5	300.0		87%	4%	
2002	165.0	217.5	220.0	292.5		297.5	320.0		78%	9%	
2003	195.0	242.5	232.5	290.0					81%	5%	82%
2004			265.0	290.0	312.5	292.5			85%	4%	81%
2005	227		268		306				85%	1%	84%
2006		258	270	290	297				86%	2%	85%
2007	209	235	265	291	300	286	293		82%	4%	84%
2008	202		252		280		306		83%	1%	84%
2009		225	258	266	304	317			83%	3%	83%

20th place	Average of								3rd	Standard	Rolling
56	62	69	77	85	94	105	+105	place	Deviation	three-year	
										average	
2001		232.5	260.0						84%	1%	
2002				235.0					70%	NA	
2003		222.5							81%	NA	78%
2004			240.0		290.0				79%	3%	77%
2005	207		215						72%	4%	77%
2006		242							84%	NA	78%
2007			255	280	285				82%	1%	79%
2008							295		78%	NA	82%
2009				297	301				83%	0%	81%

**NOTES:**

████████ indicates that there were not this number of competitors who placed.

## CURRENT (2010) JUNIOR MEN'S QUALIFYING TOTALS

	56	62	69	77	85	94	105	+105
Elite	199	230	247	260	278	288	300	307
%	80%	80%	80%	80%	80%	80%	80%	80%
Junior International	182	210	226	237	255	263	274	281
%	73%	73%	73%	73%	73%	73%	73%	73%
National	149	172	185	195	209	216	225	230
%	60%	60%	60%	60%	60%	60%	60%	60%

*NOTE: % = percent of the average of the 3rd place at the last three Junior World championships*

## PROJECTED 2011 JUNIOR MEN'S QUALIFYING TOTALS USING CURRENT AWF POLICY

(using Junior Worlds results in 2007, 2008, 2009)

	56	62	69	77	85	94	105	+105
Elite	199	229	247	259	278	288	299	306
Junior International	179	206	222	233	250	259	269	276
National	149	172	185	194	209	216	224	230

*NOTE: The qualifying Totals are rounded down.*

As percentages of the respective Senior standards:

	56	62	69	77	85	94	105	+105	Average	St. Dev.
Elite	87%	89%	90%	85%	87%	85%	87%	86%	87%	2%
Junior International	81%	83%	84%	79%	81%	79%	81%	80%	81%	2%
National	78%	80%	81%	76%	79%	77%	78%	78%	78%	2%

As percentages of the Senior Elite standard:

	56	62	69	77	85	94	105	+105	Average	St. Dev.
Elite	87%	89%	90%	85%	87%	85%	87%	86%	87%	2%
Junior International	79%	80%	81%	76%	78%	77%	78%	78%	78%	2%
National	65%	67%	68%	63%	66%	64%	65%	65%	65%	1%

## WORLD CHAMPIONSHIP PLACING TOTALS - JUNIOR WOMEN

3rd place	3 Year		3 Year		3 Year		3 Year		3 Year		3 Year		3 Year	
	48	Aver.	53	Aver.	58	Aver.	63	Aver.	69	Aver.	75	Aver.	+75	Aver.
2001	162.5		177.5		192.5		202.5		187.5		212.5		250.0	
2002	167.5		175.0		182.5		197.5		230.0		225.0		255.0	
2003	167.5	166	190.0	181	200.0	192	217.5	206	227.5	215	230.0	223	255.0	253
2004	160.0	165	172.5	179	207.5	197	212.5	209	207.5	222	227.5	228	215.0	242
2005	158	162	186	183	206	205	222	217	233	223	235	231	241	237
2006	172	163	200	186	205	206	215	217	201	214	238	234	257	238
2007	171	167	188	191	205	205	212	216	229	221	220	231	264	254
2008	176	173	183	190	201	204	189	205	213	214	194	217	200	240
2009	169	172	174	182	199	202	202	201	220	221	232	215	243	236

10th place	Average of							3rd place	Standard Deviation	Rolling three-year average
	48	53	58	63	69	75	+75			
2001	130.0	157.5	157.5	175.0	172.5	180.0		86%	4%	
2002	137.5	95.0	162.5	165.0	202.5	190.0	160.0	78%	13%	
2003	120.0	150.0	162.5	162.5			200.0	77%	3%	80%
2004		155.0	160.0	185.0	170.0	150.0	185.0	81%	8%	79%
2005		157	182	180	182		212	84%	4%	81%
2006	138	162	181	185		170	202	81%	5%	82%
2007	148	157	172	164	191		215	83%	3%	83%
2008	156	155	172	169	177			86%	2%	83%
2009	128	152	168	174	161	185	195	81%	5%	83%

15th place	Average of							3rd place	Standard Deviation	Rolling three-year average
	48	53	58	63	69	75	+75			
2001			137.5	165.0				76%	5%	
2002				120.0	182.5			70%	9%	
2003		137.5	145.0	182.5				76%	5%	74%
2004		147.5		170.0				83%	3%	76%
2005			165					80%	NA	80%
2006								NA	NA	81%
2007	119		159					74%	4%	77%
2008	135		155					77%	0%	75%
2009		139	154				157	74%	7%	75%

### NOTES:

████████ indicates that there were not this number of competitors who placed.

## CURRENT (2010) JUNIOR WOMEN'S QUALIFYING TOTALS

	48	53	58	63	69	75	+75
Elite	138	147	162	163	177	178	190
%	80%	81%	80%	81%	80%	83%	81%
Junior International	125	133	148	149	161	162	173
%	73%	73%	73%	74%	73%	75%	73%
National	103	109	121	122	133	134	142
%	60%	60%	60%	61%	60%	62%	60%

NOTE: % = percent of the average of the 3rd place at the last three Junior World championships

## PROJECTED 2011 JUNIOR WOMEN'S QUALIFYING TOTALS USING CURRENT AWF POLICY

(using Junior Worlds results in 2007, 2008, 2009)

	48	53	58	63	69	75	+75
Elite	137	145	161	160	176	172	188
Junior International	123	130	145	144	158	155	169
National	103	109	121	120	132	129	141

NOTES: The qualifying Totals are rounded down.

These would increase to 1kg more than the lower category.

As percentages of the respective Senior standards:

	48	53	58	63	69	75	+75	Average	St. Dev.
Elite	90%	85%	91%	82%	88%	86%	84%	87%	3%
Junior International	83%	79%	85%	76%	81%	80%	79%	81%	3%
National	81%	77%	82%	74%	79%	78%	76%	78%	3%

As percentages of the Senior Elite standard:

	48	53	58	63	69	75	+75	Average	St. Dev.
Elite	90%	85%	91%	82%	88%	86%	84%	87%	3%
Junior International	80%	76%	82%	74%	79%	78%	76%	78%	3%
National	67%	64%	68%	62%	66%	65%	63%	65%	2%

## WORLD CHAMPIONSHIP PLACING TOTALS - YOUTH MEN

3rd place	3 Year	3 Year	3 Year	3 Year	3 Year	3 Year	3 Year	3 Year	3 Year	3 Year	3 Year	3 Year	3 Year
50	Aver.	56	Aver.	62	Aver.	69	Aver.	77	Aver.	85	Aver.	94	Aver.
2009	198	198	237	237	252	252	268	268	287	287	316	316	320

10th place	Average of								3rd	Standard	Rolling
50	56	62	69	77	85	94	+94	place	Deviation	three-year	
										average	
2009	179	215	235	258	264	275	265	266	90%	4%	90%

15th place	Average of								3rd	Standard	Rolling
50	56	62	69	77	85	94	+94	place	Deviation	three-year	
										average	
2009	171	200	223	250	255	259			87%	4%	87%

20th place	Average of								3rd	Standard	Rolling
50	56	62	69	77	85	94	+94	place	Deviation	three-year	
										average	
2009	162	195	209	245	230	238			82%	5%	82%

**NOTES:**

████████ indicates that there were not this number of competitors who placed.

## CURRENT (2010) YOUTH MEN'S QUALIFYING TOTALS

	50	56	62	69	77	85	94	+94	Average
Youth International	108	112	129	139	146	157	162	171	
%	43%	39%	42%	43%	42%	44%	43%	45%	43%
National	96	100	115	124	130	139	144	152	
%	39%	35%	37%	38%	37%	39%	38%	40%	38%

NOTE: % = percent of the average of the 3rd place at the last three Junior World championships

## PROJECTED 2011 JUNIOR MEN'S QUALIFYING TOTALS USING CURRENT AWF POLICY

(using Junior Worlds results in 2007, 2008, 2009)

	50	56	62	69	77	85	94	+94	
Junior International	107	123	133	139	149	154	161	164	NOTE: Assumed 43%
National	94	109	117	123	132	144	142	145	NOTE: Assumed 38%

NOTE: The qualifying Totals are rounded down.

As percentages of the respective Senior standards:

	56	62	69	77	85	94	Average	St. Dev.
Junior International	56%	53%	52%	50%	50%	49%	52%	2%
National	57%	54%	54%	52%	54%	50%	54%	2%

As percentages of the Senior Elite standard:

	56	62	69	77	85	94	Average	St. Dev.
Junior International	54%	52%	51%	49%	48%	48%	50%	2%
National	48%	45%	45%	43%	45%	42%	45%	1%



## WORLD CHAMPIONSHIP PLACING TOTALS - YOUTH WOMEN

3rd place	3 Year	3 Year	3 Year	3 Year	3 Year	3 Year	3 Year	3 Year	3 Year	3 Year	3 Year		
44	Aver.	48	Aver.	53	Aver.	58	Aver.	63	Aver.	69	Aver.	+69	Aver.
2009	141	141	164	164	180	180	207	207	200	200	183	183	215

10th place	Average of							Standard	Rolling	
44	48	53	58	63	69	+69	3rd	Deviation	three-year	
							place		average	
2009	76	122	155	167	177	158	193	80%	12%	80%

15th place	Average of							Standard	Rolling
44	48	53	58	63	69	+69	3rd	Deviation	three-year
							place		average
2009	90	141	153	165	120	184	73%	10%	73%

**NOTES:**

████████ indicates that there were not this number of competitors who placed.

## CURRENT (2010) YOUTH WOMEN'S QUALIFYING TOTALS

	44	48	53	58	63	69	+69	Average
Youth International	69	77	82	91	92	99	103	
%	40%	42%	41%	45%	42%	46%	44%	43%
National	60	69	73	81	82	88	92	
%	35%	38%	36%	40%	37%	41%	39%	38%

NOTE: % = percent of the average of the 3rd place at the last three Junior World championships

## PROJECTED 2011 JUNIOR WOMEN'S QUALIFYING TOTALS USING CURRENT AWF POLICY

(using Junior Worlds results in 2007, 2008, 2009)

	44	48	53	58	63	69	+69	
Junior International	73	78	86	86	94	91	101	NOTE: Assumed 43%
National	65	69	76	76	83	86	89	NOTE: Assumed 38%

NOTE: The qualifying Totals are rounded down.

These would increase to 1kg more than the lower category.

As percentages of the respective Senior standards:

	48	53	58	63	69	Average	St. Dev.
Junior International	53%	52%	50%	50%	47%	51%	2%
National	54%	54%	51%	51%	51%	52%	1%

As percentages of the Senior Elite standard:

	48	53	58	63	69	Average	St. Dev.
Junior International	51%	51%	49%	48%	46%	49%	2%
National	45%	45%	43%	43%	43%	44%	1%