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**Academic
Qualifications**
Accountant and
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Diploma
Degree in Low Sciences
Degree in Sport
Sciences
Advanced Degree in
Preventive Sciences of
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Master in Preventive
Sciences of Sport and
Recovery
Professor of Sciences
and Techniques of
Individual Sport at the
University of Rome -Tor
Vergata

**Professional Sport
Qualification**
1984 - Qualified as
Weightlifting Coach
1990 - Qualified as
Weightlifting Instructor
2002 - Qualified as
Weightlifting Maestro

Professional Experiences
Athlete
Italian Champion in the years
1977, 1978, 1979, 1980, 1981,
1982, 1986, 1988, 1989)
Professional Experience as
Coach
1992 - Participation in
Women European
Championships
as national coach (1 gold, 2
silver, 1 bronze medals)
1998 - Participation in
Women European
Championships
as national coach (1 silver, 2
bronze medals)
1999 - Participation in
Women European
Championships
as national coach (2 silver, 2
bronze medals)

Honours
1988 - Italian Olympic
Committee Bronze medal for
sport merit
2006 - Italian Olympic
Committee Gold medal for
sport merit
2007 - EWF Certificate of
Merit
Technical and Scientific
Publications
1985 - Published Book
Weightlifting for
Schoolchildren
2000 - Published Book The
Scientific Foundation
of Muscle Strengthening
2003 - Published Book Muscle
Strengthening Scientific
Foundation
and practical Suggestions
2003 - Published Book
Weightlifting Exercise
2004 - Published Book
Weightlifting in Caltanissetta,
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WEIGHTLIFTING: comparing three editions of the Olympic Games

The London Olympic Games have come and gone and of weightlifting we can safely say — without fear of contradiction - that the competitive level was truly spectacular. The forty four new Olympic and World records set testify that as regards the quality of the results, the 2012 Games was superior to both Beijing (2008) and Athens (2004): however, the question that arises is what really happened and what has changed so radically in Olympic Weightlifting over the last eight years?

The Olympic Games - there's no denying – have always been a fascinating and spectacular display of sporting events. Every edition has had the ability to convey strong emotions and has left each of us with lasting memories. This is especially true of the athletes, who have had the privilege of fulfilling their dream as real protagonists and whose performances have captivated the hearts and minds of the spectators. Performance, contest, competitiveness, victory or defeat, when experienced with the Olympic spirit, make the sport an unparalleled show, on a par with any other form of organized entertainment. London was a showcase for weightlifting and with a considerable following it achieved great results, as was the case in the past editions. The idea behind this article is to compare the results, the quality of both male and female athletes' performances in the last three editions and to take a snapshot, by a simple data analysis. Let's start by analyzing (Fig. no. 1) the average of the top three male athletes ranked in each category:

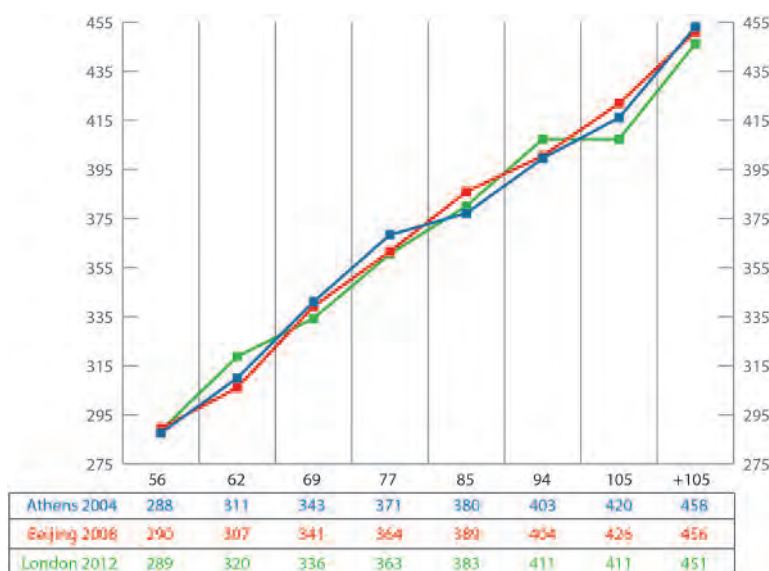


Figure no.1 - Average of the top 3 male athletes in the last three Olympic Games: Athens 2004, Beijing 2008, London 2012

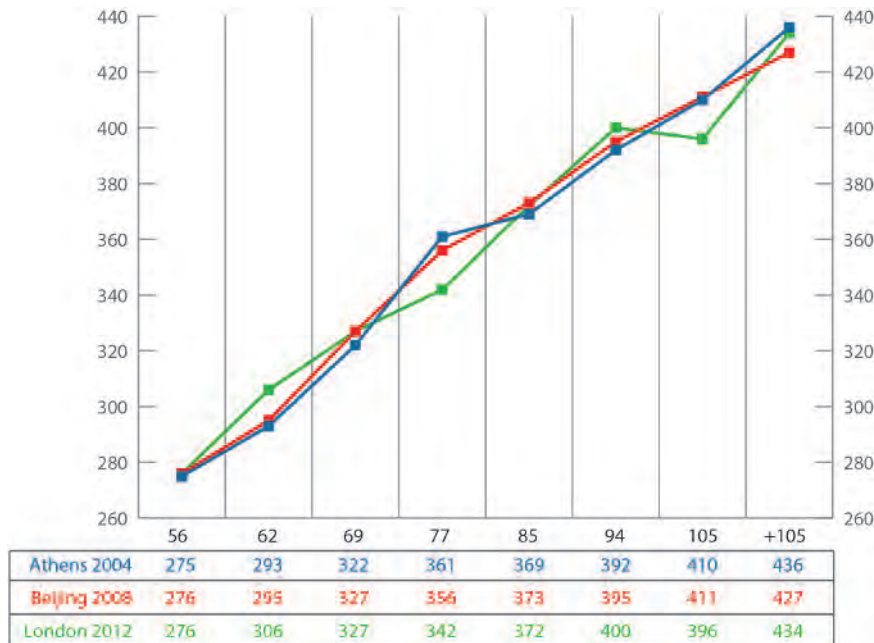


Figure no.2 - Average of the top 10 male athletes in the last three Olympic Games: Athens 2004, Beijing 2008, London 2011

+105kg with -29 in Beijing and -21 at the 2004 Games.

The same analysis was applied to the female competitions, in which the average of the top three results (Fig. no.4) in each edition and subsequently the top ten results (Fig. no.5) for each category.

The results of the London Games show an increase in performance compared to the same positions of their male counterparts, in particular in the 53kg category, with an increase of 8kg compared to Beijing and 11kg compared to Athens. An increase was recorded in the 58kg category and +7 kg between London and Beijing and +6 between London and Athens. The most substantial increases were however in the heavy categories -75kg and +75kg. In the former, the difference between London and Beijing was 13kg, whereas between London and Athens the difference was 14kg. The +75kg category undoubtedly recorded the most notable increases of the 3 Games: +29kg between London and Beijing and +21kg between London and Athens.

A decrease was seen only in the 48kg category and in the 69kg, respectively with -3 between London and Beijing and -6 between London and Athens in the first case; in the second situation, the 69kg category, the decrease between the London edition and that of Beijing was -6 kg, whereas between the London edition and that of Athens was -9kg.

As you can see from the graph, after some time (2004 Athens - 2012 London), there is no significant increase in performance, in fact we can see substantial stability in the average results for the places on the podium. The main positive difference, recorded in London, compared to the other two editions, is seen only in the 62kg category, with **320kg** compared to **311** and **307** in Athens and Beijing and in the 94kg category with an increase in the average of **411kg** in the London Games, compared to **404** and **403** in respectively the 2008 and 2004 editions.

In other cases, apart from substantially no decision being made in the 56kg in London, no exceptional increases were recorded. If we extend the average to the first 10 ranked (Fig. no.2), the situation does not change signif-

icantly. The outcome of the 56kg category is repeated with an increase in the 62kg and 94kg in the London edition compared to the others. In the 77kg and 105kg categories, there is a marked decrease in the London Games compared to the 2 previous editions in consideration: Beijing and Athens -19kg and -14 kg.

A difference was also calculated (Fig. no.3) in the male competitions, in terms of quality of the average of the top three ranked compared to the top ten (the values are expressed for each category, in the last three editions of the Olympic Games reviewed).

The most notable differences are in the 69kg category in the Athens edition, with no less than -21kg, the 77kg category also showed -21kg, whereas in the

	56		Diff.	62		Diff.	69		Diff.	77		Diff.
Athens	288	275	-13	311	293	-18	343	322	-21	371	361	-10
Beijing	290	276	-14	307	295	-12	341	327	-14	364	356	-8
London	289	276	-13	320	306	-14	336	327	-9	363	342	-21
	84		Diff.	94		Diff.	105		Diff.	+105		Diff.
Athens	380	369	-11	403	392	-11	420	410	-10	458	436	-22
Beijing	389	373	-16	404	395	-9	426	411	-15	456	427	-29
London	383	372	-11	411	400	-11	411	396	-15	451	434	-17

Figure no.3 - Comparing the average of the top three ranked (yellow column) and the top ten ranked (green column) male athletes in the last three editions of the Olympic Games: Athens 2004, Beijing 2008, London 2012

WEIGHTLIFTING: COMPARING THREE EDITIONS OF THE OLYMPIC GAMES

However, the comparison becomes more interesting if made between the averages of the top ten athletes (Fig. no.5).

Paradoxically, the 2004 edition established – in three out of seven categories – an average which is decisively higher than Beijing and London. In particular, the 63kg, 69kg and 75kg categories show up notable differences. In the 63kg category, the difference from Beijing is +12kg, whereas in the same competition in London it was +26kg. The athletes in the 69kg differentiate their average, once again in the top ten places, with the following: the difference between Athens and Beijing is +13kg, whereas the comparison between Athens and London is +9kg.

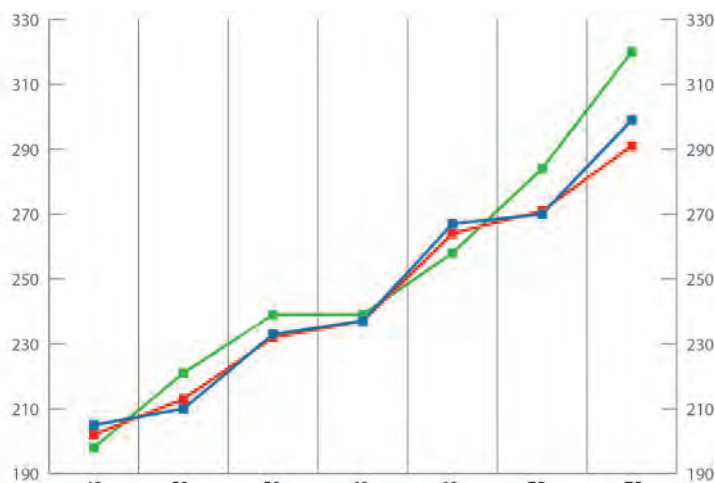
In the recent London Games, the average had decidedly improved in the 53kg and 58kg categories compared to the other editions. In the first case, there was an increase of +25kg compared to Beijing and +10kg when compared to Athens. The average of the results in show Beijing, as can be easily seen on the graph, in the middle of the London and Athens results (Fig. no.6). There is only a negative peak in the 53kg category with a decrease of -25kg.

The differences in the table between the average results of the first three ranked athletes and those in the top 10 places shows a gap, in some categories, decidedly wider than what was recorded by the top 3 male athletes, compared to the average of the top 10 ranked.

The most notable difference is between the top results, more specifically, those in the medal zone in the 58kg in Athens, compared to the average of the top ten ranked athletes, with a -41 kg. This is indeed a striking dif-

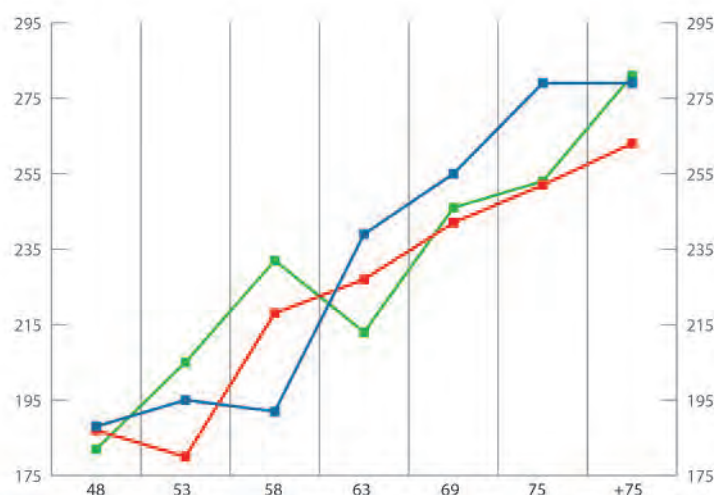
ference. It is interesting to note however how this gap is reduced by the time of the London Games, registering only -7 kg. This is not the case however in the 63kg, 75kg and +75kg cate-

gories where the gap was always widening. From +2 it went up to +26 in the 63kg category. From +9 to -31 in the 75kg category and from -20 to -39 in the +75kg category.



Athens 2004	205	210	233	237	267	270	299
Beijing 2008	202	213	232	237	264	271	291
London 2012	198	221	239	239	258	284	320

Figure no.4 - Average of the top 3 female athletes in the last three editions of the Olympic Games: Athens 2004, Beijing 2008, London 2012



Athens 2004	188	195	192	239	255	279	279
Beijing 2008	187	180	210	227	242	252	263
London 2012	182	205	232	213	246	253	281

Figure no.5 - Comparing the averages of the top ten ranked athletes in the last three editions of the Olympic Games (Athens 2004, Beijing 2008, London 2012).

	48	Diff.	53	Diff.	58	Diff.	63	Diff.				
Athens	205	188	-17	210	195	-15	233	192	-41	237	239	2
Beijing	202	187	-15	213	180	-33	232	218	-14	237	227	-10
London	198	182	-16	221	205	-16	239	232	-7	239	213	-26
	69	Diff.	75	Diff.	+75	Diff.						
Athens	267	255	-12	270	279	9	299	279	-20			
Beijing	264	242	-22	271	252	-19	291	263	-28			
London	258	246	-12	284	253	-31	320	281	-39			

Figure no.6 - Comparing the average of the top three ranked (yellow column) and the top ten ranked (green column) female athletes in the last three editions of the Olympic Games: Athens 2004, Beijing 2008, London 2012

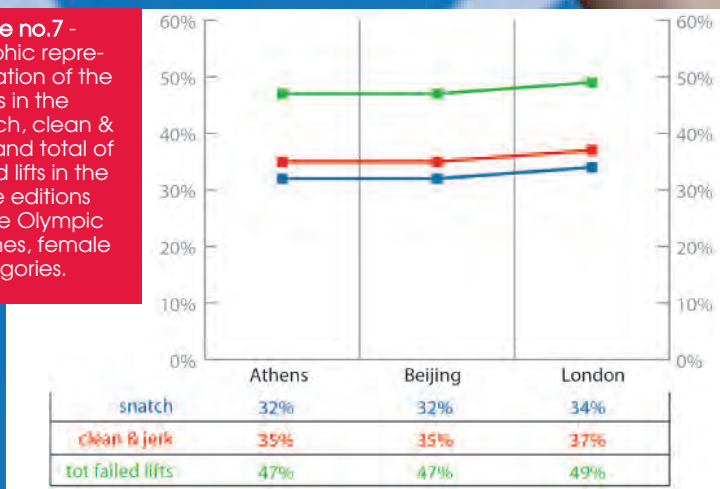
The error

Rarely in weightlifting has the error factor in the various exercises been studied in statistical terms, or rather, how many failed lifts have been recorded in a competition, in each weight category. In this "snapshot" of the three editions of the Olympic Games we are examining, it was interesting to see how this variable was distributed among the various categories. For a more reliable picture of the context, only the results of the first ten athletes of each category were taken into consideration; as was the case for the results' analysis, not all weight categories had the same number of athletes and it would therefore have been difficult to make comparisons.

Starting from the analysis of the failed lifts in the female categories, it is necessary to consider that the data referring to Beijing and London have in common that the progressive increase of the barbell between attempts is 1kg or its multiples, whereas the increase in the Athens edition was in multiples of 2.5kg. At this point, it is interesting to understand how this influenced the progression between the lifts with 2.5kg multiples as opposed to multiples of 1kg. If we analyze the graph (Fig. no. 7) relative to the total number of errors per exercise and overall in the female categories, no substantial differences of importance emerge in the three editions, and, in particular, there does not appear to be an important reduction in errors in the regulation technical progression between multiples of 2.5kg and the current 1kg multiples.

The result however changes if we carry out the analysis category by category. In some, for example the 48kg, the analysis (Fig. no. 8) registers an extremely low percentage of failed lifts (26.7%) compared to the other two editions, whose percentage stands at 45%. The same result was had in the 75kg category in which the percentage error, in the Beijing was 21.7%, whereas in London and Athens the respective values were 28.3% and 41.3%.

Figure no.7 - Graphic representation of the errors in the snatch, clean & jerk and total of failed lifts in the three editions of the Olympic Games, female categories.



WEIGHTLIFTING: COMPARING THREE EDITIONS OF THE OLYMPIC GAMES

Category 48 Beijing										Category 48 London										Category 48 Athens									
1 st at-tempt	2 nd at-tempt	3 rd at-tempt	%	Tot. no lift	%	1 st at-tempt	2 nd at-tempt	3 rd at-tempt	%	Tot. no lift	%	1 st at-tempt	2 nd at-tempt	3 rd at-tempt	%	Tot. no lift	%	1 st at-tempt	2 nd at-tempt	3 rd at-tempt	%	Tot. no lift	%						
Snatch	1	10%	6	60%	5	50%	12	40.0%	12	40.0%	12	40.0%	12	40.0%	4	40%	8	26.7%	Snatch	1	10%	6	60%	7	70%	14	46.7%		
Clean & jerk	3	30%	4	40%	8	80%	15	50.0%	15	50.0%	15	50.0%	15	50.0%	4	40%	8	26.7%	Clean & jerk	2	20%	6	60%	5	50%	13	43.3%		
tot. no lift	4	20%	10	50%	13	65%	27	45.0%	27	45.0%	27	45.0%	27	45.0%	7	35%	16	26.7%	tot. no lift	3	15%	12	60%	12	60%	27	45.0%		
Category 53 Beijing										Category 53 London										Category 53 Athens									
1 st at-tempt	2 nd at-tempt	3 rd at-tempt	%	Tot. no lift	%	1 st at-tempt	2 nd at-tempt	3 rd at-tempt	%	Tot. no lift	%	1 st at-tempt	2 nd at-tempt	3 rd at-tempt	%	Tot. no lift	%	1 st at-tempt	2 nd at-tempt	3 rd at-tempt	%	Tot. no lift	%						
Snatch	2	20%	5	50%	9	30.0%	Snatch	5	50%	4	40%	13	43.3%	Snatch	2	25%	3	38%	3	38%	3	38%	8	33.3%					
Clean & jerk	1	10%	3	30%	6	60%	10	33.3%	Clean & jerk	1	10%	3	30%	5	50%	9	30.0%	Clean & jerk	0	0%	3	38%	3	38%	6	25.0%			
tot. no lift	3	15%	5	25%	11	55%	19	31.7%	tot. no lift	6	30%	7	35%	9	45%	22	36.7%	tot. no lift	2	25%	6	75%	6	75%	14	58.3%			
Category 58 Beijing										Category 58 London										Category 58 Athens									
1 st at-tempt	2 nd at-tempt	3 rd at-tempt	%	Tot. no lift	%	1 st at-tempt	2 nd at-tempt	3 rd at-tempt	%	Tot. no lift	%	1 st at-tempt	2 nd at-tempt	3 rd at-tempt	%	Tot. no lift	%	1 st at-tempt	2 nd at-tempt	3 rd at-tempt	%	Tot. no lift	%						
Snatch	3	30%	4	40%	4	40%	11	36.7%	Snatch	3	30%	6	60%	4	40%	13	43.3%	Snatch	2	20%	5	50%	7	70%	14	46.7%			
Clean & jerk	0	0%	5	50%	5	50%	10	33.3%	Clean & jerk	2	20%	5	50%	7	70%	14	46.7%	Clean & jerk	4	40%	2	20%	9	90%	15	50.0%			
tot. no lift	3	15%	9	45%	9	45%	21	35.0%	tot. no lift	5	25%	11	55%	11	55%	27	45.0%	tot. no lift	6	30%	7	35%	16	80%	29	48.3%			
Category 63 Beijing										Category 63 London										Category 63 Athens									
1 st at-tempt	2 nd at-tempt	3 rd at-tempt	%	Tot. no lift	%	1 st at-tempt	2 nd at-tempt	3 rd at-tempt	%	Tot. no lift	%	1 st at-tempt	2 nd at-tempt	3 rd at-tempt	%	Tot. no lift	%	1 st at-tempt	2 nd at-tempt	3 rd at-tempt	%	Tot. no lift	%						
Snatch	0	0%	2	20%	6	60%	8	26.7%	Snatch	1	10%	4	40%	6	60%	11	36.7%	Snatch	3	33%	4	44%	3	33%	10	37.0%			
Clean & jerk	1	10%	8	80%	7	70%	16	53.3%	Clean & jerk	0	0%	5	50%	9	90%	14	46.7%	Clean & jerk	2	22%	5	56%	8	80%	12	44.4%			
tot. no lift	1	5%	10	50%	13	65%	24	40.0%	tot. no lift	1	5%	9	45%	15	75%	25	41.7%	tot. no lift	5	56%	9	100%	8	89%	22	45.8%			
Category 69 Beijing										Category 69 London										Category 69 Athens									
1 st at-tempt	2 nd at-tempt	3 rd at-tempt	%	Tot. no lift	%	1 st at-tempt	2 nd at-tempt	3 rd at-tempt	%	Tot. no lift	%	1 st at-tempt	2 nd at-tempt	3 rd at-tempt	%	Tot. no lift	%	1 st at-tempt	2 nd at-tempt	3 rd at-tempt	%	Tot. no lift	%						
Snatch	2	20%	4	40%	4	40%	10	33.3%	Snatch	2	20%	2	20%	7	70%	11	36.7%	Snatch	2	20%	8	80%	6	60%	16	53.3%			
Clean & jerk	2	20%	3	30%	2	20%	7	23.3%	Clean & jerk	3	30%	4	40%	4	40%	11	36.7%	Clean & jerk	3	30%	3	30%	7	70%	13	43.3%			
tot. no lift	4	20%	7	35%	6	30%	17	28.3%	tot. no lift	5	25%	6	30%	11	55%	22	36.7%	tot. no lift	5	25%	11	55%	13	65%	29	48.3%			
Category 75 Beijing										Category 75 London										Category 75 Athens									
1 st at-tempt	2 nd at-tempt	3 rd at-tempt	%	Tot. no lift	%	1 st at-tempt	2 nd at-tempt	3 rd at-tempt	%	Tot. no lift	%	1 st at-tempt	2 nd at-tempt	3 rd at-tempt	%	Tot. no lift	%	1 st at-tempt	2 nd at-tempt	3 rd at-tempt	%	Tot. no lift	%						
Snatch	3	30%	4	40%	1	10%	8	26.7%	Snatch	2	20%	2	20%	3	30%	7	23.3%	Snatch	1	10%	2	20%	7	70%	10	33.3%			
Clean & jerk	0	0%	1	10%	4	40%	5	16.7%	Clean & jerk	1	10%	3	30%	6	60%	10	33.3%	Clean & jerk	2	20%	4	40%	10	100%	16	53.3%			
tot. no lift	3	15%	5	25%	5	25%	13	21.7%	tot. no lift	3	15%	5	25%	9	45%	17	28.3%	tot. no lift	3	15%	6	30%	17	85%	26	43.3%			
Category +75 Beijing										Category +75 London										Category +75 Athens									
1 st at-tempt	2 nd at-tempt	3 rd at-tempt	%	Tot. no lift	%	1 st at-tempt	2 nd at-tempt	3 rd at-tempt	%	Tot. no lift	%	1 st at-tempt	2 nd at-tempt	3 rd at-tempt	%	Tot. no lift	%	1 st at-tempt	2 nd at-tempt	3 rd at-tempt	%	Tot. no lift	%						
Snatch	3	30%	1	10%	5	50%	9	30.0%	Snatch	0	0%	3	30%	5	50%	8	26.7%	Snatch	3	30%	2	20%	5	50%	10	33.3%			
Clean & jerk	2	20%	1	10%	7	70%	10	33.3%	Clean & jerk	1	10%	3	30%	8	80%	12	40.0%	Clean & jerk	2	20%	6	60%	3	30%	11	36.7%			
tot. no lift	5	25%	2	10%	12	60%	19	31.7%	tot. no lift	1	5%	6	30%	13	65%	20	33.3%	tot. no lift	5	25%	8	40%	8	40%	21	35.0%			
Tutte le categorie Femminili Beijing																													
1 st at-tempt	2 nd at-tempt	3 rd at-tempt	%	Tot. no lift	%	1 st at-tempt	2 nd at-tempt	3 rd at-tempt	%	Tot. no lift	%	1 st at-tempt	2 nd at-tempt	3 rd at-tempt	%	Tot. no lift	%	1 st at-tempt	2 nd at-tempt	3 rd at-tempt	%	Tot. no lift	%						
Snatch	14	20%	23	33%	30	43%	67	31.9%	Snatch	14	20%	24	34%	33	47%	71	33.8%	Snatch	13	19%	24	34%	31	44%	68	32.4%			
Clean & jerk	9	13%	25	36%	39	56%	73	34.8%	Clean & jerk	9	13%	27	39%	42	60%	78	37.1%	Clean & jerk	13	19%	23	33%	37	53%	73	34.8%			
tot. no lift	23	16.4%	48	34.3%	69	49.3%	140	46.7%	tot. no lift	23	16.4%	51	36.4%	75	53.6%	149	49.7%	tot. no lift	26	18.6%	47	33.6%	68	48.6%	141	47.0%			

Figure no.8 - Comparing the failed lifts in the female competitions in the various categories, relative to the Olympic Games of Athens 2004, Beijing 2008 and London 2012

In the male categories, the figure that emerged shows that the total percentage of failed lifts in Athens (65%) is greater than that of London (57%) and Beijing (48%). It is almost as if, in the male categories, the technical progression of multiples from 2.5kg to 1kg has had a positive effect on the quantity of failed lifts and consequently on the errors. (Fig. no.9 and no. 10).

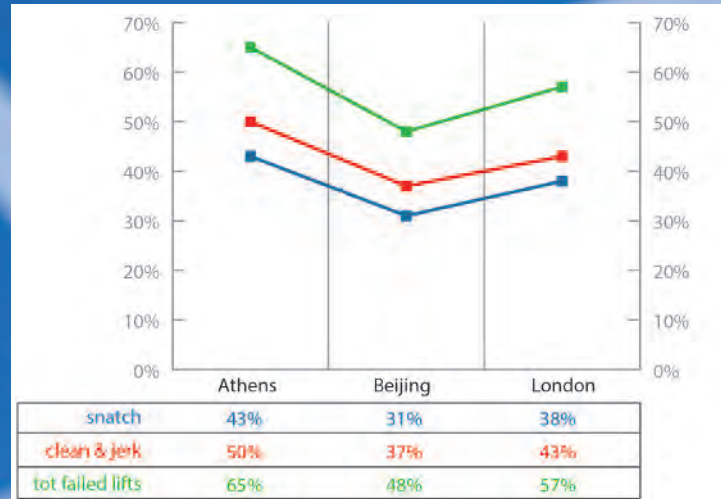


Figure no.9 - Graphic representation of the errors in the snatch, clean & jerk and total of failed lifts in the three editions of the Olympic Games, male categories.

WEIGHTLIFTING: COMPARING THREE EDITIONS OF THE OLYMPIC GAMES

Category 56 Beijing				Category 56 London				Category 56 Athens								
1 st at-tempt	%	2 nd at-tempt	%	3 rd at-tempt	%	Tot. no lift	%	1 st at-tempt	%	2 nd at-tempt	%	3 rd at-tempt	%	Tot. no lift	%	
Snatch	3	30%	4	40%	2	20%	9	30,0%	0	0%	3	30%	7	70%	10	33,3%
Clean & jerk	2	20%	5	50%	6	60%	13	43,3%	3	30%	4	40%	6	60%	13	43,3%
tot. no lift	5	25%	9	45%	8	40%	22	36,7%	7	35%	7	35%	9	45%	23	38,9%
Category 62 Beijing				Category 62 London				Category 62 Athens								
1 st at-tempt	%	2 nd at-tempt	%	3 rd at-tempt	%	Tot. no lift	%	1 st at-tempt	%	2 nd at-tempt	%	3 rd at-tempt	%	Tot. no lift	%	
Snatch	1	10%	5	50%	4	40%	10	33,3%	3	30%	6	60%	5	50%	14	46,7%
Clean & jerk	2	20%	3	30%	7	70%	12	40,0%	6	60%	6	60%	4	40%	16	53,3%
tot. no lift	3	15%	8	40%	11	55%	22	36,7%	7	35%	11	55%	10	50%	28	46,7%
Category 69 Beijing				Category 69 London				Category 69 Athens								
1 st at-tempt	%	2 nd at-tempt	%	3 rd at-tempt	%	Tot. no lift	%	1 st at-tempt	%	2 nd at-tempt	%	3 rd at-tempt	%	Tot. no lift	%	
Snatch	3	30%	1	10%	7	70%	11	36,7%	2	20%	6	60%	14	46,7%		
Clean & jerk	4	40%	5	50%	4	40%	13	43,3%	1	10%	2	20%	7	70%	16	53,3%
tot. no lift	7	35%	6	30%	11	55%	24	40,0%	3	15%	8	40%	13	65%	24	40,0%
Category 77 Beijing				Category 77 London				Category 77 Athens								
1 st at-tempt	%	2 nd at-tempt	%	3 rd at-tempt	%	Tot. no lift	%	1 st at-tempt	%	2 nd at-tempt	%	3 rd at-tempt	%	Tot. no lift	%	
Snatch	1	10%	4	40%	6	60%	11	36,7%	0	0%	6	60%	5	50%	11	36,7%
Clean & jerk	2	20%	4	40%	8	80%	14	46,7%	2	20%	5	50%	5	50%	12	40,0%
tot. no lift	3	15%	8	40%	14	70%	25	41,7%	2	10%	11	55%	10	50%	23	38,3%
Category 85 Beijing				Category 85 London				Category 85 Athens								
1 st at-tempt	%	2 nd at-tempt	%	3 rd at-tempt	%	Tot. no lift	%	1 st at-tempt	%	2 nd at-tempt	%	3 rd at-tempt	%	Tot. no lift	%	
Snatch	3	30%	2	20%	2	20%	7	23,3%	1	10%	3	30%	6	60%	15	50,0%
Clean & jerk	3	30%	3	30%	3	30%	9	30,0%	1	10%	3	30%	9	90%	13	43,3%
tot. no lift	6	30%	5	25%	5	25%	16	26,7%	2	10%	6	30%	15	75%	23	38,3%
Category 94 Beijing				Category 94 London				Category 94 Athens								
1 st at-tempt	%	2 nd at-tempt	%	3 rd at-tempt	%	Tot. no lift	%	1 st at-tempt	%	2 nd at-tempt	%	3 rd at-tempt	%	Tot. no lift	%	
Snatch	2	20%	5	50%	4	40%	11	36,7%	2	20%	4	40%	8	80%	14	46,7%
Clean & jerk	3	30%	2	20%	7	70%	12	40,0%	0	0%	5	50%	7	70%	12	40,0%
tot. no lift	5	25%	7	35%	11	55%	23	38,3%	0	0%	8	40%	16	80%	29	48,3%
Category 105 Beijing				Category 105 London				Category 105 Athens								
1 st at-tempt	%	2 nd at-tempt	%	3 rd at-tempt	%	Tot. no lift	%	1 st at-tempt	%	2 nd at-tempt	%	3 rd at-tempt	%	Tot. no lift	%	
Snatch	2	20%	4	40%	5	50%	11	36,7%	2	20%	4	40%	4	40%	10	33,3%
Clean & jerk	1	10%	3	30%	2	20%	6	20,0%	3	30%	2	20%	2	20%	12	40,0%
tot. no lift	3	15%	7	35%	7	35%	17	28,3%	5	25%	6	30%	12	60%	22	36,7%
Category +105 Beijing				Category +105 London				Category +105 Athens								
1 st at-tempt	%	2 nd at-tempt	%	3 rd at-tempt	%	Tot. no lift	%	1 st at-tempt	%	2 nd at-tempt	%	3 rd at-tempt	%	Tot. no lift	%	
Snatch	2	20%	0	0%	2	20%	4	13,3%	3	30%	4	40%	5	50%	12	40,0%
Clean & jerk	4	40%	3	30%	5	50%	12	40,0%	4	40%	10	100%	19	63,3%	33	55,0%
tot. no lift	6	30%	3	15%	7	35%	16	26,7%	7	35%	18	90%	33	55,0%	50	83,3%
All male categories Beijing				All male categories London				All male categories Athens								
1 st at-tempt	%	2 nd at-tempt	%	3 rd at-tempt	%	Tot. no lift	%	1 st at-tempt	%	2 nd at-tempt	%	3 rd at-tempt	%	Tot. no lift	%	
Snatch	14	20%	21	30%	30	43%	65	31,0%	17	24%	32	46%	41	59%	90	42,9%
Clean & jerk	19	27%	23	33%	36	51%	78	37,1%	12	17%	34	49%	59	84%	105	50,0%
tot. no lift	33	23,6%	44	31,4%	66	47,1%	143	47,7%	29	20,7%	66	47,1%	100	71,4%	195	65,0%

Figure no. 10 - Comparing the failed lifts in the various male categories in relative to the Olympic Games of Athens 2004, Beijing 2008 and London 2012

Conclusions

The statistical "snapshot" presented in this report is a brief glance which compares the results obtained in the Olympic competitions in the last three editions of the Games, which serves to analyze how some variables, typical of competitions (results and errors) change over time. It was also shown how a simple technical regulation, the progression of multiples of 2.5 to that of 1kg, has had an effect of the male categories with a significant reduction of errors, a case that does not emerge in the female categories.

This comparison of variables will be very useful in future editions of the Games in order to understand how and to what extent the analyzed averages will change.

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