

The USA vs. the World: A Statistical Analysis of American, World, and Olympic Weightlifting Results, 1970-1992

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What are we to do? We have worked hard and long. I go to at least an average of forty weightlifting contests a year. Constantly looking for and hoping for a lifter who gives promise of future greatness. We are not giving up. But unfortunately we are in the position of a man who is running a race with a man who is well ahead of him and running faster than he is. We will try harder.¹

— Bob Hoffman

One of the curious features in the history of modern Olympic sports has been the almost continuous decline of American weightlifting since the 1950s. Under the paternal guidance of Bob Hoffman, president of the York Barbell Company, teams representing the United States rose to international prominence during the 1930s, and America remained a perennial power in world and Olympic competitions for several decades thereafter. With the rise of nationalized sports programs in the Soviet Union after World War II and in Eastern Europe by the 1960s, however, fewer American lifters were

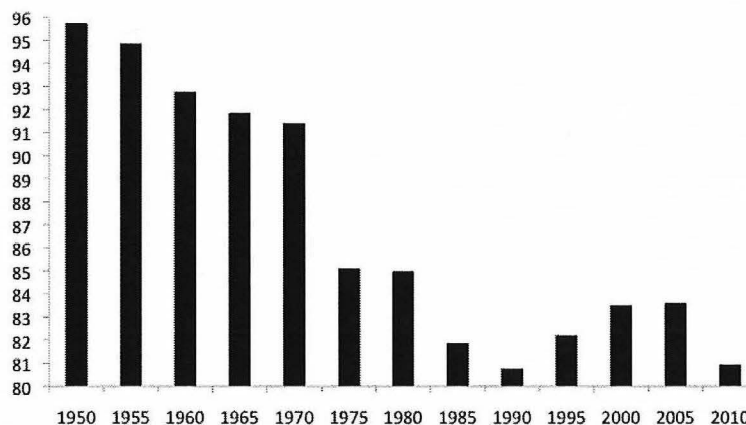
winning medals or setting records on the world stage. What followed in the 1970s and 1980s was a prolonged performance drought marked by a precipitous decline relative to foreign strength athletes. It was so debilitating that American weightlifting never recovered its elite status. How and why it happened, despite America's premier placement in other Olympic sports, has been the subject of much discussion but little serious study. A statistical analysis of the most critical period of America's relative decline will help fill that void by identifying the

chronology, numerical parameters, and severity of the growing differential between the USA and the world. As the first portion of a trilogy of articles examining this phenomenon, this article attempts simply to identify the problem, while later installments, incorporating documentary and oral evidence, will provide an interpretive framework.

Commentary and concerns about America's decline as an international weightlifting power have been ubiquitous for over a half century, appearing mainly in "muscle magazines" that often covered a variety of strength-related endeavors

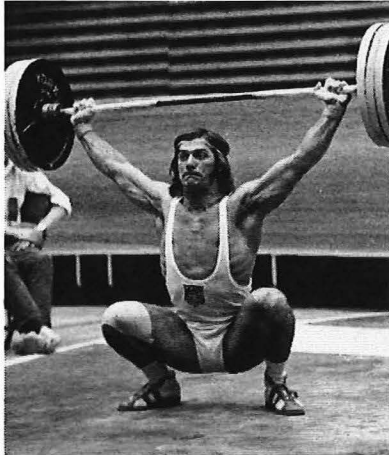
from general fitness and physique contests to Highland events and Olympic games.² In the twenty-first century, pundits have also utilized the internet to post websites which, though sometimes shrill in tone and repetitive, provide valid insights and diagnoses of American weightlifting ills.³ Rarely, however, have observers approximated the method employed in the current study by drawing on data to confirm these assumptions.

Bruce Klemens, in his 1979 statistical analysis of weightlifting results, compares American perform-



Graph 1: USA National Championship Totals as a Percentage of World Championship Totals: 1950-2010

ances with those of the world for the top three places in four weight classes from 1952 to 1979. He concludes that although American totals in the early fifties “were closest to the international results, our progress *even at*



At the 1972 National Championships Rick Holbrook snatched 155 kilos (341.7 pounds), a lift that came closer to the world standard than nearly any other lift by an American man since then.

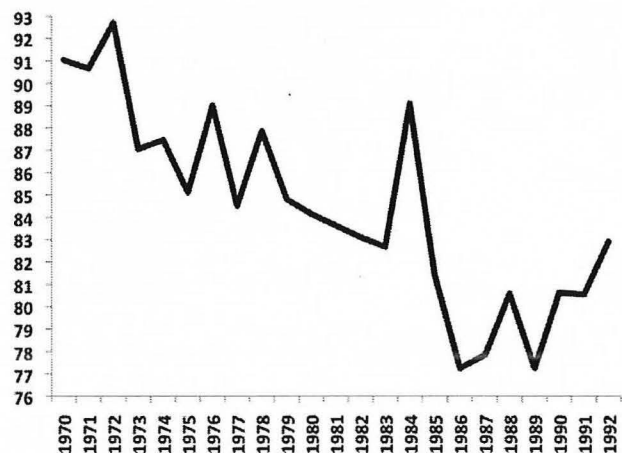
that time was less than the rest of the world.” By the late 1960s, however, “US progress was the *highest ever* and we actually were catching up,” but after 1969, “we started to lose ground again.” More sobering is the 1993 snapshot rendered by statistician Herb Glossbrenner showing that the top ten averages for American lifters in nine weight classes from 1974 to 1992 increased only 21.9 kilos or 2.43 kilos per class, while comparable figures for the rest of the world was 267.3 kilos or 29.7 kilos per class.⁴ This study will refine and elaborate on those general observations and lay the groundwork for a working hypothesis.⁵

The most basic source for comparing American and world weightlifting is data derived from yearly reports in various iron game journals of American, world, and Olympic competitions from 1970 to 1992.⁶ During this twenty-three year period 1,409 totals were registered in American senior national meets and 3,840 totals were registered in world and Olympic championships by lifters from 103 countries in nine weight classes—flyweight (52 kilos), bantamweight (56 kilos), featherweight (60 kilos), lightweight (67.5 kilos), middleweight (75 kilos), light-heavyweight (82.5 kilos), middle-heavyweight (90 kilos), heavyweight (110 kilos), and superheavyweight (110+ kilos). This categorization fits neatly into successive protocols established by the International Weightlifting Federation (IWF), including the introduction of flyweight and superheavyweight classes in 1969 and the reconfiguration of weight classes after the 1992 Olympics in Barcelona. For the sake of simplicity and uniformity, this analysis is limited to the gold medalists in each weight class. To accommodate the elimination of the press as a competitive lift in 1972,

only snatch and clean and jerk lifts are included in the totals analyzed. No less important in the interests of uniformity, however, is the non-inclusion of the heavy-weight (100 kilos) division that was added to national and international meets in 1977. But the major rationale for choosing this period and categorization is that they correspond to the most significant widening performance gap between American and international lifters.

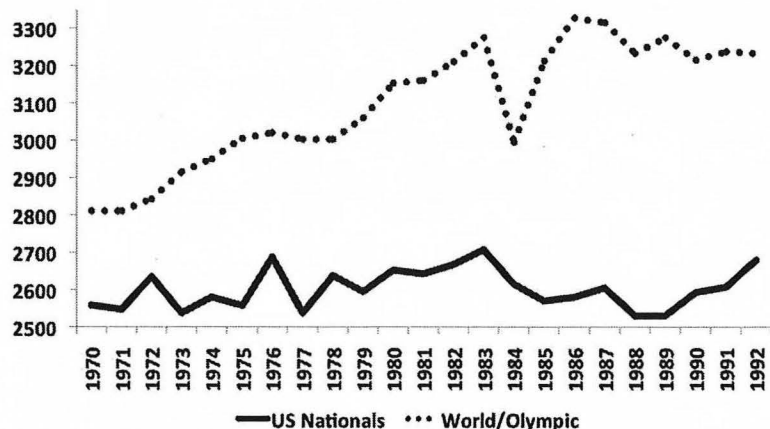
How critical these decades were to this differential becomes clear when data (discounting changes in kinds of lifts performed and weight classes) is drawn more broadly at five year intervals over a sixty year period. When the yearly totals of first place winners for all classes in the USA nationals are converted into percentages of totals achieved by world champions (see Graph 1) a pattern quickly becomes evident.

Not surprisingly, in 1950 when the United States was the premier weightlifting power, its champions at the 1950 National Championship in Philadelphia totaled 95.75% of what international winners (including Americans) totaled at the World Championships that year in Paris. This high point was followed by a slow decline over the next twenty years: 1955 (94.86%), 1960 (92.77%), 1965 (91.85%) to the 1970 Senior Nationals in Culver City, California, where American best totals were just 91.41% of the winning totals at the World Championships in Columbus, Ohio. Then there was a drop to 85.11% in 1975, followed by 1980 (84.99%), 1985 (81.87%), and then to the low point in American fortunes in 1990 of 80.77%. Since then percentages hovered in the lower eighties through 2010 (80.94%).⁷ This overall picture agrees substantially with Klemens’



Graph 2: USA National Championship Totals as a Percentage of World Championship Totals: 1970 - 1992

analysis (so far as his graphics go), showing a dramatic drop in American performances after 1969, followed by a prolonged slump.⁸



Graph 3: American and World/Olympic Championships: 1970-1992 Gold Medalists (Composite Total in Kilos)

A closer look at the period of greatest decline, 1970-1992, with uniform weight classes and just two competitive lifts, provides a yearly perspective and possibly suggests some factors that were operative in this change. Graph 2 reveals that the United States reached its post-1969 zenith at the 1972 National Championships in Detroit with a 92.70% of the World Championship total registered that year at the 20th Olympiad in Munich. It was highlighted by a magnificent 155 kilo (341.7 pound) snatch by mid-heavyweight Rick Holbrook and a 227.5 kilo clean and jerk by superheavyweight Ken Patera who became the first American to surpass the 500-pound mark. What followed was a 5.65% decline to 87.05% of international totals at the 1973 World Championships in Havana. After a brief recovery at the 1976 Montreal Olympics where mid-heavyweight Lee James won a silver medal, the downward slide continued through the 1980 Olympics, boycotted by the United States, to a spike in performance at the 1984 Olympics which was boycotted by the Soviet bloc.

Thereafter American weightlifting reached the nadir of its productivity, averaging just 79.80% of world totals for the next eight years. The most obvious feature of this decline is that American athletes, with the notable

exception of 1980, always did better relative to foreign competition in Olympic years.⁹

A more vivid perspective on the widening differential between America and the world can be gained by juxtaposing the former's lackluster performances with the steady progress of the latter. Graph 3 shows the contrasts between America's uneven record of peaks and valleys and the almost steady increase of winning world totals, with the notable exception of 1984 when most of the best lifters in the world did not show up in Los Angeles. The Communist bloc held its own alternative "Red Olympics" or Friendship Tournament in Varna, Bulgaria. The cumulative total of 3,322.5 kilos for winners at Varna exceeded the 2,995 kilos lifted by the Olympic gold medalists in Los Angeles by 317.5 kilos

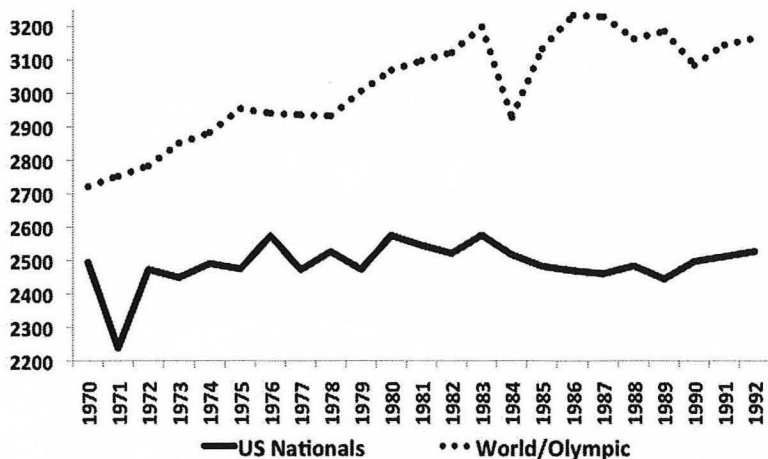
with corresponding differentials of 35.3 kilos in each of the weight classes. At Varna there were 25 world records set, 15 by Soviet lifters and 10 by Bulgarians. At Los Angeles there were none.¹⁰

These increasing differentials are most noticeable from 1976 to 1984 and again from 1985 to 1991, not so much in the latter instance because the rest of the world was still advancing but because the United States was not getting any better. The following chart traces in kilos this differential, averaged in roughly four year cycles defined by the Olympics.

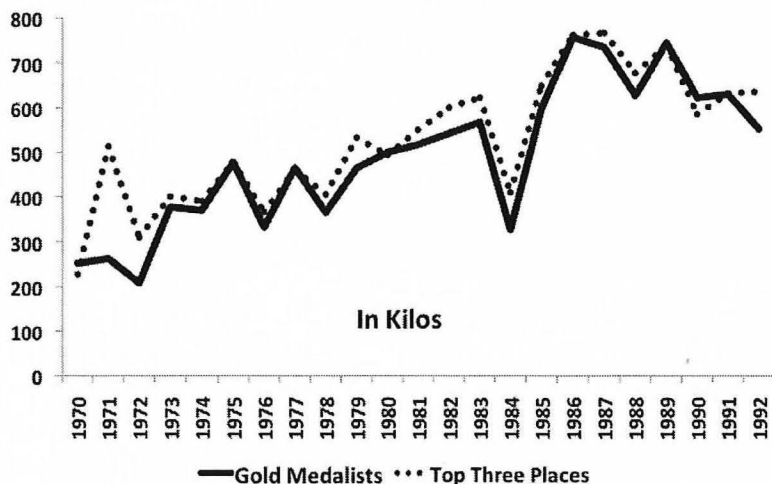
Years	USA Champs	World/Olympic Champs	Differential	Average Performance %
1970-72	2,580	2,821.5	241.5	91.44
1973-76	2,591	2,972.5	381.5	87.17
1977-80	2,606	3,054.25	448.25	85.32
1981-84	2,671	3,160	489	84.53
1985-88	2,592.5	3,271.75	679.25	79.24
1989-92	2,602.5	3,240	637.5	80.32

Table 1: American and World/Olympic Championships in Multi-Year Cycles: Differentials (in Kilos) and Average Performance Percentages

In summarial terms, as distinct from multiple year averages, American national champions lifted a total of 59,990.5 kilos, 84.19 % (or -11,267.5 kilos) of the 71,258 kilos lifted by international gold medalists during the 23 year period under study.¹¹ To address possible concerns that the employment of only winners might skew the results of this study, a follow-up analysis of the first three places in each class reveals (with the



Graph 4: American and World/Olympic Championships, 1970-1992 Gold Medalists (Top 3 Places; Total Composites in Kilos)



Graph 5: American and World/Olympic Championships, 1970-1992 Comparative Differentials

exception of the 1971 American Nationals when there were only two flyweights and one featherweight) much the same picture in Graphs 4 & 5. The vectors almost always move in the same direction as they did with the gold medalists. In fact it shows an even greater differential whereby the sum of the top three American averages for each year of 57,283.5 kilos, amounts to 82.43% (or -12,212 kilos) of the world/Olympic averages at 69,495.5 kilos, suggesting a lack of depth of the former.¹²

The underachievement of American athletes is evident not only in comparison to international winning totals but to their own performances (see Table 2) at world and Olympic championships which was a total of 193.5 net kilos less than they lifted in the national championships for corresponding years from 1970 to 1992.

The most serious erosion was a 240 net kilo loss from 1976 to 1982, followed by the Moscow World Championships in 1983 when no Americans registered a total. Not surprisingly in the course of two decades, the average placements of American lifters declined from sixth to twelfth in international competition. A corresponding breakdown of weight categories in kilos indicates that international athletes excelled in those classes neglected by the Americans. The former, again calculated as a percentage of world/Olympic totals, dominated the lighter classes whereas the latter performed better (though nowhere near parity) in

Years	USA Champs	World/Olympic Champs	Net Differential	Average Placements	# Lifters
1970-72	9,513.5	9,519.75	6.25	6.21	19
1973-76	6,574.75	6,537.5	-37.25	8.62	21
1977-80	5,605	5,517.5	-87.5	9.5	18
1981-84	7,492.5	7,427.5	-65	8.88	24
1985-88	5,025	5,040	15	12.3	20
1989-92	10,810	10,785	-25	12.41	37

Table 2: American Performance Differentials (In Kilos) and Average Placements: National and World/ Olympic Championships in Multi-Year Cycles

Class	# Lifters	USA	World/Olympic	Differential	Performance %
		Champs	Champs		
Fly	0	4,127.25	5,703	1,575.75	72.37
Bantam	1	4,808.75	6,245	1,436.25	77.00
Feather	8	5,487.5	6,777.5	1,290	80.97
Light	14	6,343	7,497.5	1,154.5	84.60
Middle	11	6,931.75	8,040	1,108.25	86.21
L-Heavy	21	7,428.75	8,535	1,106.25	87.04
M-Heavy	31	7,836	8,992.5	1,156.5	87.14
Heavy	24	8,371	9,430	1,058.75	88.77
S-Heavy	25	8,656.25	9,982.5	1,326.25	86.71

Table 3: American and World/Olympic Championships in Bodyweight Classes, 1970-1992: Differentials (in Kilos) and Average Performance Percentages

the heavier divisions. This pattern of United States participation in world/Olympic championships is closely correlated to performance percentages with only 34 lifters (or 25.19%) represented in the lighter five classes (under 75 kilos or 165 pounds) as opposed to 101 lifters (or 74.81%) in the heavier four classes. If the nascent (post-1976) 100 kilo class of 19 lifters is added to this mix it would cast even greater (22.08% to 77.92%) weight to the upper end.¹³

With an average bodyweight of 91.09 kilos (200.10 pounds), including no flyweights and 26 super-heavyweights, American teams seemed woefully top-heavy. Yet the progressively higher performance percentages of the heavier classes seem to justify this imbalance.

Such increases, however, can be deceptive, especially when American lifters in the lighter classes were scarcely represented in international competition. When a compilation of multi-year weight class averages in kilos of those who actually participated, as distinct from overall individual bodyweights, is employed a somewhat different picture emerges.¹⁴ Coincident with Table 1, it was during the first two segments (1970-72 and 1973-76), at lower bodyweights, that Americans did better, and during the latter periods (1985-88 and 1989-92), at higher bodyweights, they lifted less, revealing an inverse correlation between bodyweight and performance on the platform.

Not shown, but relevant,

was the failure of America's three lifters to register a total at the 1983 World Championships in Moscow. Reporter Bruce Klemens called it "the best championships ever—with an incredible 23 world marks being estab-

lished." It was "the year of the 'little men' because more than half of the marks were accomplished in the first three classes—including the world's first triple bodyweight C&J!"¹⁵ At one time the United States produced good little men—Robert Knodle in the 1920s, John Terry and Tony Terlazzo in the 1930s, Joe DePietro in the 1940s, and Chuck Vinci and Isaac Berger in the 1950s and 60s. While American officials of the 1970s and 1980s, who were focused on the best chance of winning medals, understandably favored the heavyweights, their short-sighted strategy abdicated all hope of winning anything on the lower end where American participation in most world meets was nearly nil.

It is not surprising that a similar differential between the American and the world/Olympic championships should also show up in an analysis of the competitive lifts. Cumulative snatch results for the former amounted to a total of 26,529.75 kilos or 84.19% of the 31,510 kilos lifted in international meets during the 23 year period under study. Respective figures in the clean and jerk are 33,460.75 kilos for the senior nationals, or

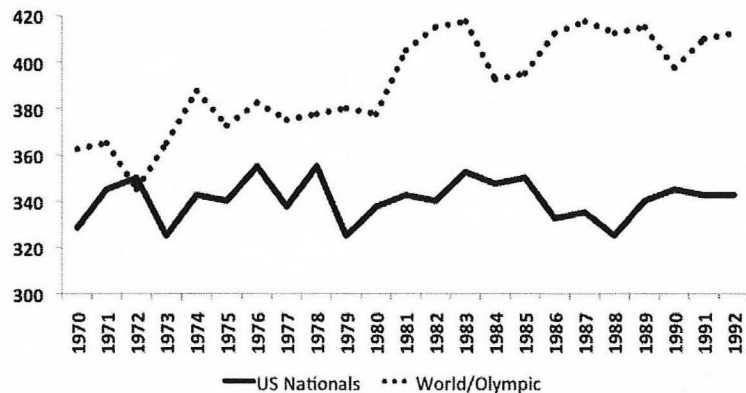
Years	Weight Class Bodyweights	Weight Class Avg. Weight	Performance %	Average Placements
1970-72	2,173.96	94.52	91.44	7.16
1973-76	2,242.5	89.7	87.17	8.5
1977-80	1,909.5	95.48	85.32	8.98
1981-84	2,835.5	94.51	84.53	8.89
1985-88	2,064.51	98.31	79.24	12.15
1989-92	3,895	102.5	80.32	12.24

Table 4: American Bodyweight Differentials (in Kilos), Performance Percentages, and Average Placements in World/Olympic Championships in Multi-Year Cycles

84.18% of the 39,748 kilos hoisted in world meets, a ratio of only .012% between snatch and clean and jerk performances. This remarkable overall consistency breaks down, however, when chronological comparisons are drawn between 1970 and 1992. They show American increases of 9.68% in the snatch but only 1.14% in

This result was contrary to what most pundits had predicted—that with more time and energy to devote to just two lifts, American quick lift totals would increase. Whether eliminating the press had this unexpected effect cannot be determined here, but it was the totals of international lifters that immediately took off. Notwithstanding the aberration of the Los Angeles debacle in 1984, they never looked back after 1972.¹⁸

Those of us who competed, officiated, or promoted during this era are hardly surprised by these results. The hard part comes from interpreting this mass of data. Numerous opinions have been put forth for the decline of American fortunes and the concomitant rise of the rest of the world, the most prominent of which are not enough money, lack of technical expertise, shortage of lifters and coaches, elimination of the press, lack of a publicity medium, competition from other sports, and drugs. All of these points of view will be examined in subsequent install-



Graph 6: American and World/Olympic Championships, 1970-1992 Middle Heavyweight Class Individual Totals (in Kilos)

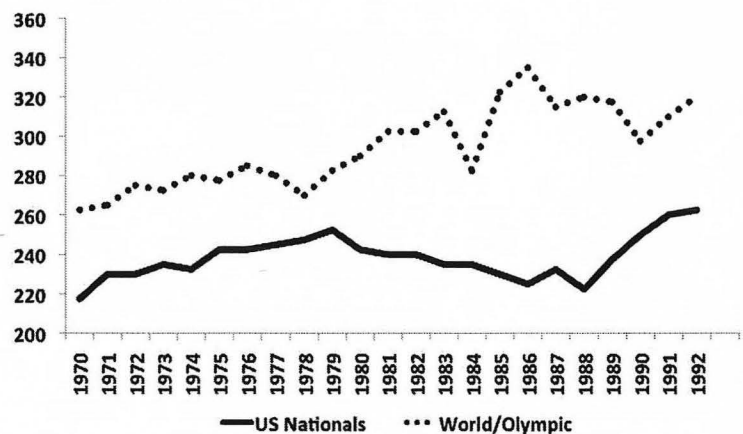
the clean and jerk, while international lifters posted respective increases of 19.5 % and 11.7%. Thus significant American gains in the snatch were more than offset by losses in the clean and jerk. Still, Rick Holbrook’s American record of 155 kilos at the 1972 National Championships (combined with his 195 kilo clean and jerk) surpassed the two lift total of Bulgaria’s Andon Nikolov at the Olympics, marking the only time an American exceeded an international athlete in the two lifts for the entire period under study.¹⁶

Otherwise the results for individual weight classes fairly consistently parallel the overall rising differential between American and world totals displayed in Graph 1 with the exception of the featherweight class, where the appearance of Bulgarian/Turkish superstar Naim Suleimanov (aka Suleymanoglu) fueled a growth gap in the late 1980s.¹⁷

Finally, an examination of lifting movements enables one to determine the possible impact of the abolition of the press in 1972. For the United States there was an immediate decline of 40 kilos overall in the snatch and 57.5 kilos in the clean and jerk. Furthermore, there would be five more occasions when the nine weight classes would dip below the pre-1973 mark of 1,145 kilos in the former and eighteen times when it would drop below the pre-1973 standard of 1,490 kilos in the latter.

ments of this study and will provide a “narrative” analysis based on published accounts and a “retrospective” analysis drawn largely from recollections of those who lived through this era of decline. A final statistical outcome that will necessarily set the tone for these further analyses is provided by a ranking of the top ten of the thirty-two countries that won medals (with gold in parentheses) at Olympic and world championships between 1970 and 1992.

It is hardly coincidental that nine of them were ruled by Communist regimes and that the only democratic country in this list is one of the most disciplined societies in the world. These countries accounted for 86.4% of all medals and 91.3% of gold medals won in



Graph 7: American and World/Olympic Championships, 1970-1992 Middle Featherweight Class Individual Totals (in Kilos)

weightlifting during this era. The United States, with six medals, none of them gold, ranked fifteenth, tied with South Korea which had two gold medalists.

Country	# Medals	# Gold Medals
The Soviet Union	170	95
Bulgaria	135	59
Poland	56	9
East Germany	48	4
China	35	5
Hungary	30	4
Cuba	17	7
Romania	17	2
Japan	17	2
North Korea	12	2

Table 5: Top 10 Medal-Winning Countries in World/Olympic Championships: 1970-1992

Prior to proceeding with the interpretive portions of this study, two caveats should be kept in mind. First, these reflections on the past are not intended to offer any ready-made answers for resolving America's present or future weightlifting woes. The second is an aphorism made famous by legendary skeptic H. L. Mencken: "There is always a well-known solution to every human problem—neat, plausible, and wrong."¹⁹

NOTES:

1. Bob Hoffman, "Olympic Report," *Strength & Health*, 40 (December 1972): 70.
2. See *Strength & Health*, *Iron Man*, *Denis Reno's Weightlifters Newsletter*, *Weightlifting USA*, *Muscle Builder*, and *Muscle Power*. See also a three-part series by Louie Simmons in *Milo*, *A Journal for Serious Strength Athletes*: "How to Regain Top Form," 2 (October 1994), 28-29; "How to Regain Top Form—Part II: Regaining Respect," 3 (April 1995): 26-28; and "What If?" 4 (April 1996): 25-29.
3. See especially Bud Charniga's six-part series, "There Is No System," at www.sportivnypress.com, and Lyle McDonald's twenty-part "Why the US Sucks at Olympic Lifting" at www.bodyrecomposition.com. For more temperate views on the state of American weightlifting see Harvey Newton's "Weightlifting eBulletin" at harveynewton@newton-sports.com or Bob Takano's "Takano Athletics" newsletter at www.takanoathletics.com.
4. Bruce Klemens, "Weightlifting Performances 1952-1979," *Denis Reno's Weightlifters Newsletter*, no. 71 (October 21, 1979): 12; Bob Hise, "Have We Progressed?" *International Olympic Lifter* 11 (May 1993): 3, 18.
5. For further contextual studies, see John D. Fair's articles: "Olympic Weightlifting and the Introduction of Steroids: A Statistical Analysis of the World Championship Results, 1948-1972," *The International Journal of the History of Sport* 5 (May 1988): 96-114; "A

Century of American Weightlifting in the Olympics, 1896-1996," *The International Journal of the History of Sport* 15 (December 1998): 18-35; and "The Tragic History of the Military Press in Olympic and World Championship Competition, 1928-1972," *The Journal of Sport History* 28 (Fall 2001): 345-74.

6. *Strength & Health*, *Iron Man*, *Denis Reno's Weightlifters Newsletter*, *Weightlifting USA*, and *World Weightlifting*.
7. See Appendix I for the composite totals of winners in all classes at American and World/Olympic Championships, 1950-2010.
8. It does not, however, coincide with Lyle McDonald's view that "we went from complete and utter dominance of the sport to nearly zero results and it seems to have just happened overnight (in 1956 we medalled in every category, in 1960, we medalled in 6 of 9 categories, in 1964 we won two total medals)." "Why the US Sucks," Part 5, www.bodyrecomposition.com.
9. See Appendix II for American percentages of world/Olympic Championship Totals for the winners of all classes, 1970-1992.
10. See *Denis Reno's Weightlifters Newsletter*, no. 15 (November 24 1984): 5.
11. See Appendix III for composite totals of winners in all classes at American and World/Olympic Championships, 1970-1992.
12. See Appendix IV for composite average totals for the top three places in all classes at American and World/Olympic Championships, 1970-1992.
13. With a national total of 5,265 kilos compared to the world/Olympic total of 6,145 kilos, American lifters in the 100 kilo class had an 880 kilo differential or 85.68% of the international standard from 1978 to 1992.
14. To compensate for an appropriate weight designation, an arbitrary 120 kilos is added for superheavyweight lifters.
15. Bruce Klemens, "1983 Worlds," *Strength & Health* 52, no. 2 (March, 1984): 12-21.
16. These impressive marks were offset, however, by the press in its last year of competition where Nikolov's 180 kilo lift exceeded Holbrook's 162.2 and ultimately relegated the latter to fifth place in the Olympics. See Appendix V for the totals of winners in the mid-heavyweight class at American and World/Olympic Championships, 1970-1992.
17. See Appendix VI for the totals of winners in the featherweight class at American and World/Olympic Championships, 1970-1992.
18. Investigations of weightlifting world records by Gary Cleveland and John Drewes coincide roughly with the results of this study. They show that neither the snatch nor the clean and jerk was a better determinant of world record totals from 1917 to 2001 and that it was only after 1991 that snatch ratio to the clean and jerk improved. See *The Avian Movement Advocate*, no. 49 (October/November 2002): 3-5, and no. 50 (December, 2002): 5-6.
19. H. L. Mencken, "The Divine Afflatus," *New York Evening Mail*, November, 16, 1917, and H. L. Mencken, *Prejudices: Second Series* (New York: Alfred A. Knopf, 1920), 158.

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