

## ***High School Weight Class Study (Includes MN, ND, SD)***

### **Background**

It seems as though the hottest topic every year in high school wrestling is the system of weight classes we use. Many voice their complaints and some suggest alternatives. The problem is that nobody has any data with which to make judgments. My goal in doing this study was to examine the current system of weights to determine how well it fits our wrestlers, as well as look at some alternatives. The data was obtained from the team certification sheets on file with the respective state high school associations. In all, 9732 high school wrestlers from Minnesota, North Dakota and South Dakota during the 2002-03 season were entered into a database using Filemaker Pro.

The data was then analyzed in Microsoft Excel using several different criteria. First, I looked at the distribution of wrestlers by weight class using their weight certification. After that, I used their actual weights recorded at the beginning of the season during the skin-fold tests. Using their actual weights, I examined the distribution using several weight class systems. I also compared the results when separated by school size (MN has 3 classes, North & South Dakota each have one).

First, I looked at the distribution of wrestlers using the current set of weights (103, 112, ... 275). Finding a fairly uneven distribution, I then set out to find the best system of weights ('best' meaning the most equal distribution).

I feel what really needs to be decided is the number of weight classes to use. In my own discussions with coaches, most feel that fourteen is too many. A majority of schools are struggling to fill a lineup. Also, what has seemed to happen is that the weights are so close together in the middle that the growth allowance given in January ends up giving many wrestlers the opportunity to cut down an extra weight class. That eliminates the reason for the 'growth' allowance in the first place. Trimming the number of weights back to thirteen or twelve seems to make sense. One problem cited with using twelve weights is the tie-breaking procedure in team competition. However, we have an even number of weights now, so I don't see a difference. I feel that eleven classes would remove too many opportunities for kids (although the quality of competition would be higher).

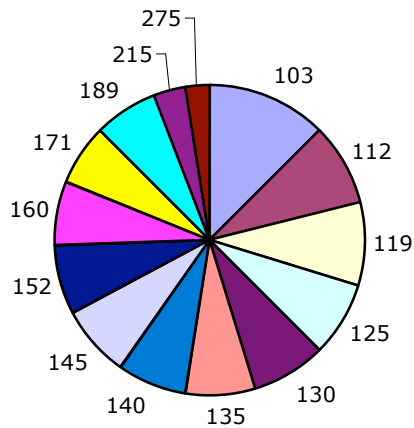
The data, charts and commentary that follow are the results of the study.

# High School Weight Class Study (Includes MN, ND, SD)

The best fitting set of weights will be the one with the lowest standard deviation.

## Distribution by Certification (All Three States)

Weight	No.	Pct.
103	1226	12.60%
112	818	8.41%
119	850	8.73%
125	760	7.81%
130	739	7.59%
135	719	7.39%
140	698	7.17%
145	721	7.41%
152	722	7.42%
160	639	6.57%
171	622	6.39%
189	639	6.57%
215	347	3.57%
275	232	2.38%
Total:	9732	



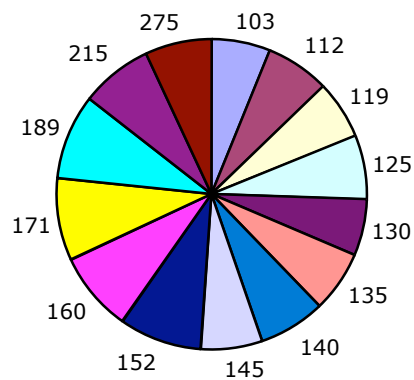
Standard Deviation: 228.092376

### Comments

Making any judgments using weight certification would be unwise. I feel the data is unreliable because many kids do not compete at their certified weights. Also, the skin-fold tests on many heavier kids produce unattainable minimum weights.

## Distribution by Actual Weight (Current Wts., All Three States)

Weight	No.	Pct.
103	605	6.22%
112	647	6.65%
119	580	5.96%
125	646	6.64%
130	589	6.05%
135	605	6.22%
140	689	7.08%
145	601	6.18%
152	856	8.80%
160	815	8.37%
171	826	8.49%
189	873	8.97%
215	723	7.43%
275	677	6.96%
Total:	9732	



Standard Deviation: 105.433798

### Comments

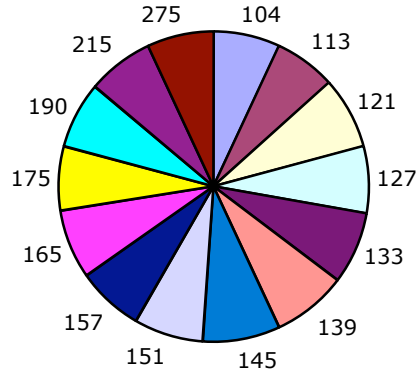
Using actual weights (taken at the beginning of a season) is a more accurate snapshot of where kids are wrestling. With 14 weights, each class should have about 7% of the wrestlers. A variation of only 3% means some weights have up to 300 more kids than others.

# High School Weight Class Study (Includes MN, ND, SD)

The best fitting set of weights will be the one with the lowest standard deviation.

## Most Equal Distribution (14 Weights, All Three States)

Weight	No.	Pct.
104	672	6.91%
113	637	6.55%
121	711	7.31%
127	695	7.14%
133	717	7.37%
139	758	7.79%
145	772	7.93%
151	715	7.35%
157	671	6.89%
165	709	7.29%
175	646	6.64%
190	689	7.08%
215	663	6.81%
275	677	6.96%
Total:	9732	



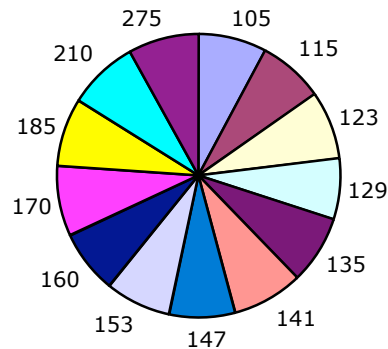
Standard Deviation: 38.7176309

### Comments

This would be the ideal set for 14 weights. The distribution is very even, with a much smaller standard deviation than the current system. Note, however, that the weights are still quite close together.

## Most Equal Distribution (13 Weights, All Three States)

Weight	No.	Pct.
105	753	7.74%
115	737	7.57%
123	750	7.71%
129	688	7.07%
135	744	7.64%
141	794	8.16%
147	733	7.53%
153	716	7.36%
160	718	7.38%
170	766	7.87%
185	768	7.89%
210	787	8.09%
275	778	7.99%
Total:	9732	



Standard Deviation: 30.5110321

### Comments

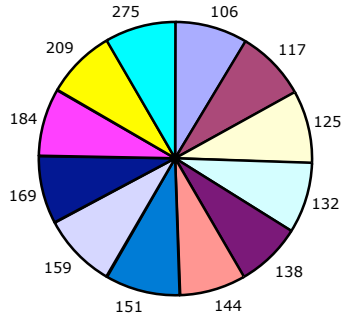
This would be the best set of 13 weights to fit our kids. The distribution is even, and there is a larger difference between weights, which will help deter using the growth allowance to cut down another weight.

# High School Weight Class Study (Includes MN, ND, SD)

The best fitting set of weights will be the one with the lowest standard deviation.

## Most Equal Distribution (12 Weights, All Three States)

Weight	No.	Pct.
106	830	8.53%
117	814	8.36%
125	834	8.57%
132	828	8.51%
138	746	7.67%
144	769	7.90%
151	856	8.80%
159	853	8.76%
169	792	8.14%
184	798	8.20%
209	798	8.20%
275	814	8.36%
Total:	9732	



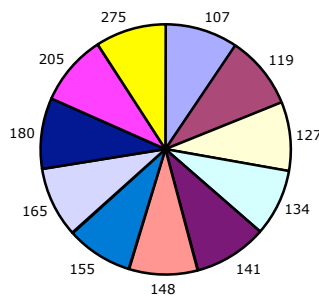
Standard Deviation: 32.5771811

### Comments

Using 12 weight classes produces a good, even distribution. The gap between weights is better and it would be easier for smaller schools to fill out a roster. It will improve the competition, but still maintain a good number of opportunities for kids.

## Most Equal Distribution (11 Weights, All Three States)

Weight	No.	Pct.
107	919	9.44%
119	913	9.38%
127	883	9.07%
134	831	8.54%
141	920	9.45%
148	858	8.82%
155	839	8.62%
165	894	9.19%
180	891	9.16%
205	885	9.09%
275	899	9.24%
Total:	9732	



Standard Deviation: 30.4009569

### Comments

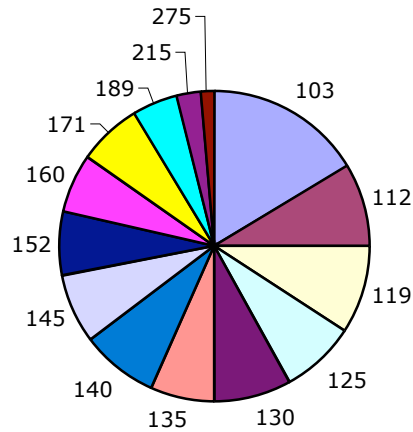
This would be the ideal set for small programs. Eleven weights would be much easier to fill, and the larger gap between weights would discourage big weight cuts. I think this may cost us participation numbers, though, because it would dramatically reduce the opportunities for varsity competition.

# High School Weight Class Study (Includes MN, ND, SD)

The best fitting set of weights will be the one with the lowest standard deviation.

## Distribution by Certification (MN Class A)

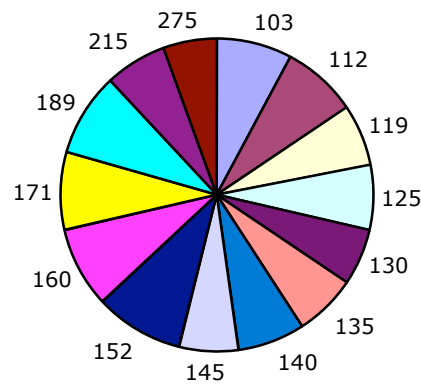
Weight	No.	Pct.
103	340	16.33%
112	181	8.69%
119	192	9.22%
125	158	7.59%
130	170	8.17%
135	141	6.77%
140	164	7.88%
145	151	7.25%
152	141	6.77%
160	125	6.00%
171	137	6.58%
189	102	4.90%
215	50	2.40%
275	30	1.44%
Total:	2082	



Standard Deviation: 71.8560833

## Distribution by Actual Weight (MN Class A)

Weight	No.	Pct.
103	163	7.83%
112	160	7.68%
119	136	6.53%
125	139	6.68%
130	117	5.62%
135	136	6.53%
140	146	7.01%
145	126	6.05%
152	192	9.22%
160	174	8.36%
171	164	7.88%
189	181	8.69%
215	135	6.48%
275	113	5.43%
Total:	2082	



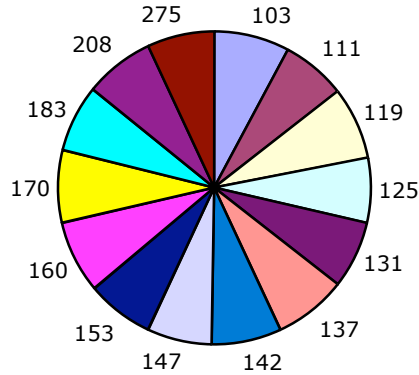
Standard Deviation: 24.0685833

# High School Weight Class Study (Includes MN, ND, SD)

The best fitting set of weights will be the one with the lowest standard deviation.

## Most Equal Distribution (14 Weights, MN Class A)

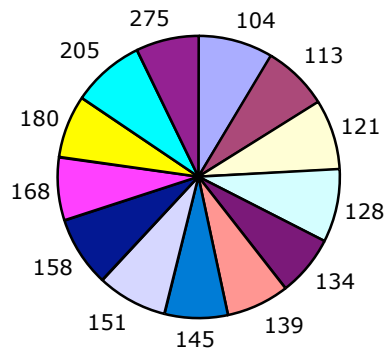
Weight	No.	Pct.
103	163	7.83%
111	140	6.72%
119	156	7.49%
125	139	6.68%
131	142	6.82%
137	157	7.54%
142	149	7.16%
147	138	6.63%
153	149	7.16%
160	156	7.49%
170	151	7.25%
183	148	7.11%
208	150	7.20%
275	144	6.92%
Total:	2082	



Standard Deviation: 7.53891006

## Most Equal Distribution (13 Weights, MN Class A)

Weight	No.	Pct.
104	182	8.74%
113	156	7.49%
121	167	8.02%
128	169	8.12%
134	149	7.16%
139	147	7.06%
145	153	7.35%
151	168	8.07%
158	165	7.93%
168	154	7.40%
180	151	7.25%
205	168	8.07%
275	153	7.35%
Total:	2082	



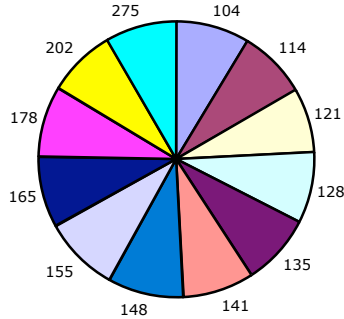
Standard Deviation: 10.3589426

# High School Weight Class Study (Includes MN, ND, SD)

The best fitting set of weights will be the one with the lowest standard deviation.

## Most Equal Distribution (12 Weights, MN Class A)

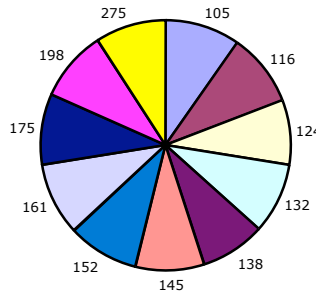
Weight	No.	Pct.
104	182	8.74%
114	167	8.02%
121	156	7.49%
128	169	8.12%
135	177	8.50%
141	170	8.17%
148	189	9.08%
155	181	8.69%
165	178	8.55%
178	171	8.21%
202	171	8.21%
275	171	8.21%
Total:	2082	



Standard Deviation: 8.53335701

## Most Equal Distribution (11 Weights, MN Class A)

Weight	No.	Pct.
105	203	9.75%
116	198	9.51%
124	171	8.21%
132	194	9.32%
138	171	8.21%
145	186	8.93%
152	192	9.22%
161	193	9.27%
175	193	9.27%
198	189	9.08%
275	192	9.22%
Total:	2082	



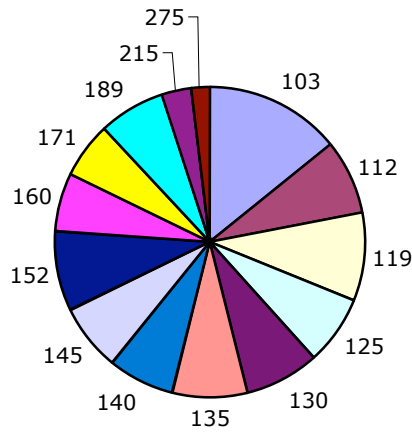
Standard Deviation: 10.0408258

# High School Weight Class Study (Includes MN, ND, SD)

The best fitting set of weights will be the one with the lowest standard deviation.

## Distribution by Certification (MN Class AA)

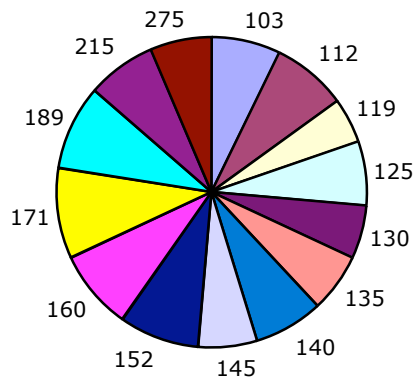
Weight	No.	Pct.
103	301	14.29%
112	163	7.74%
119	191	9.07%
125	151	7.17%
130	166	7.88%
135	164	7.79%
140	147	6.98%
145	145	6.89%
152	172	8.17%
160	131	6.22%
171	124	5.89%
189	145	6.89%
215	64	3.04%
275	42	1.99%
Total:	2106	



Standard Deviation: 59.3175474

## Distribution by Actual Weight (MN Class AA)

Weight	No.	Pct.
103	151	7.17%
112	162	7.69%
119	104	4.94%
125	136	6.46%
130	122	5.79%
135	129	6.13%
140	150	7.12%
145	130	6.17%
152	173	8.21%
160	174	8.26%
171	201	9.54%
189	188	8.93%
215	150	7.12%
275	136	6.46%
Total:	2106	



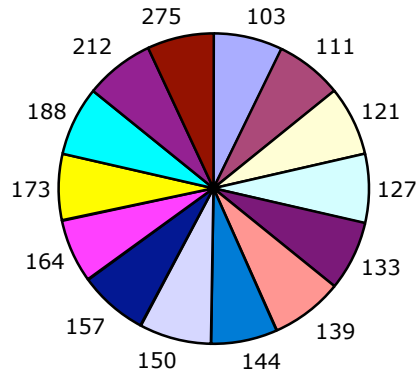
Standard Deviation: 26.9264362

# High School Weight Class Study (Includes MN, ND, SD)

The best fitting set of weights will be the one with the lowest standard deviation.

## Most Equal Distribution (14 Weights, MN Class AA)

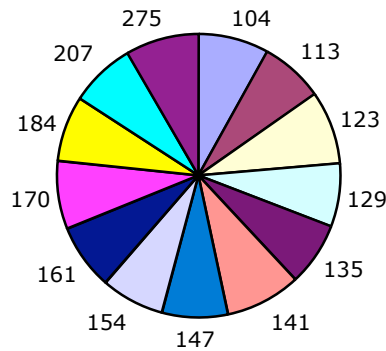
Weight	No.	Pct.
103	151	7.17%
111	147	6.98%
121	152	7.22%
127	153	7.26%
133	154	7.31%
139	158	7.50%
144	143	6.79%
150	159	7.55%
157	151	7.17%
164	143	6.79%
173	143	6.79%
188	155	7.36%
212	149	7.08%
275	148	7.03%
Total:	2106	



Standard Deviation: 5.25816999

## Most Equal Distribution (13 Weights, MN Class AA)

Weight	No.	Pct.
104	170	8.07%
113	154	7.31%
123	172	8.17%
129	153	7.26%
135	155	7.36%
141	179	8.50%
147	156	7.41%
154	156	7.41%
161	158	7.50%
170	163	7.74%
184	157	7.45%
207	156	7.41%
275	177	8.40%
Total:	2106	



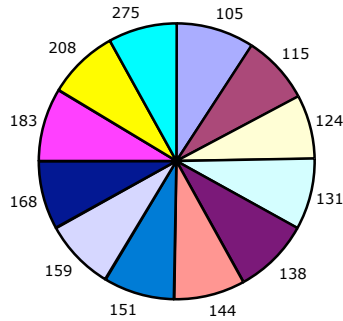
Standard Deviation: 9.2285788

# High School Weight Class Study (Includes MN, ND, SD)

The best fitting set of weights will be the one with the lowest standard deviation.

## Most Equal Distribution (12 Weights, MN Class AA)

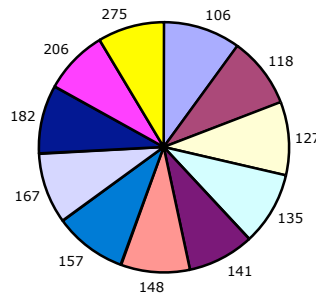
Weight	No.	Pct.
105	191	9.07%
115	170	8.07%
124	161	7.64%
131	174	8.26%
138	187	8.88%
144	175	8.31%
151	175	8.31%
159	179	8.50%
168	168	7.98%
183	179	8.50%
208	176	8.36%
275	171	8.12%
Total:	2106	



Standard Deviation: 8.07352576

## Most Equal Distribution (11 Weights, MN Class AA)

Weight	No.	Pct.
106	212	10.07%
118	191	9.07%
127	200	9.50%
135	201	9.54%
141	179	8.50%
148	189	8.97%
157	196	9.31%
167	196	9.31%
182	185	8.78%
206	177	8.40%
275	180	8.55%
Total:	2106	



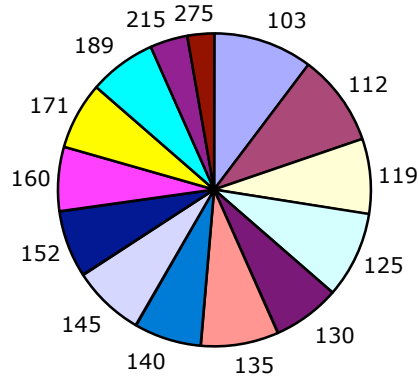
Standard Deviation: 10.8200151

# High School Weight Class Study (Includes MN, ND, SD)

The best fitting set of weights will be the one with the lowest standard deviation.

## Distribution by Certification (MN Class AAA)

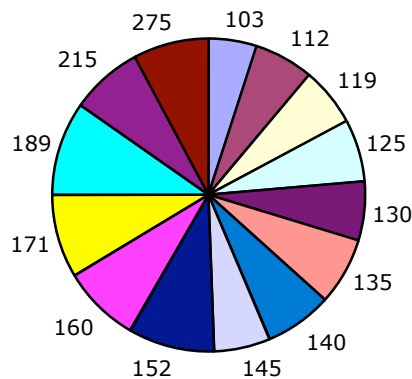
Weight	No.	Pct.
103	251	10.37%
112	225	9.29%
119	188	7.77%
125	218	9.00%
130	170	7.02%
135	189	7.81%
140	168	6.94%
145	184	7.60%
152	169	6.98%
160	164	6.77%
171	165	6.82%
189	170	7.02%
215	95	3.92%
275	65	2.68%
Total:	2421	



Standard Deviation: 47.5288808

## Distribution by Actual Weight (MN Class AAA)

Weight	No.	Pct.
103	119	4.92%
112	152	6.28%
119	145	5.99%
125	153	6.32%
130	153	6.32%
135	165	6.82%
140	169	6.98%
145	143	5.91%
152	212	8.76%
160	197	8.14%
171	205	8.47%
189	236	9.75%
215	182	7.52%
275	190	7.85%
Total:	2421	



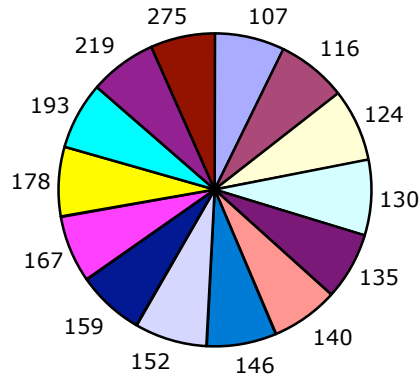
Standard Deviation: 32.0827399

# High School Weight Class Study (Includes MN, ND, SD)

The best fitting set of weights will be the one with the lowest standard deviation.

## Most Equal Distribution (14 Weights, MN Class AAA)

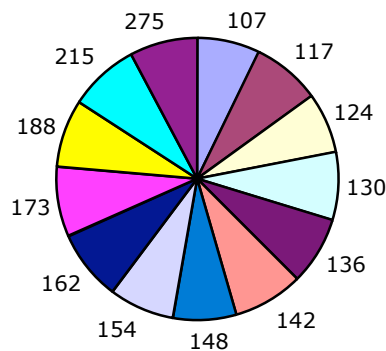
Weight	No.	Pct.
107	178	7.35%
116	169	6.98%
124	186	7.68%
130	189	7.81%
135	165	6.82%
140	169	6.98%
146	173	7.15%
152	182	7.52%
159	169	6.98%
167	168	6.94%
178	175	7.23%
193	169	6.98%
219	169	6.98%
275	160	6.61%
Total:	2421	



Standard Deviation: 8.19440978

## Most Equal Distribution (13 Weights, MN Class AAA)

Weight	No.	Pct.
107	178	7.35%
117	186	7.68%
124	169	6.98%
130	189	7.81%
136	183	7.56%
142	198	8.18%
148	176	7.27%
154	181	7.48%
162	194	8.01%
173	193	7.97%
188	189	7.81%
215	195	8.05%
275	190	7.85%
Total:	2421	



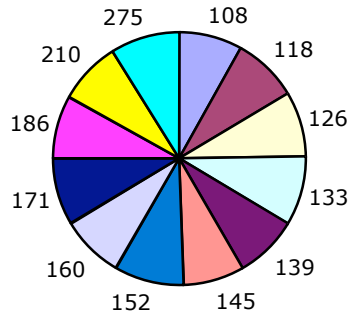
Standard Deviation: 8.45728331

# High School Weight Class Study (Includes MN, ND, SD)

The best fitting set of weights will be the one with the lowest standard deviation.

## Most Equal Distribution (12 Weights, MN Class AAA)

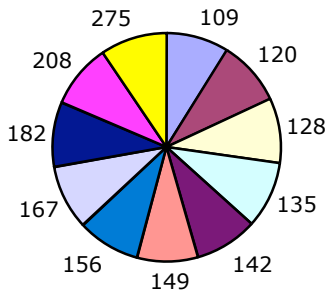
Weight	No.	Pct.
108	192	7.93%
118	203	8.38%
126	204	8.43%
133	217	8.96%
139	193	7.97%
145	190	7.85%
152	212	8.76%
160	197	8.14%
171	205	8.47%
186	198	8.18%
210	198	8.18%
275	212	8.76%
Total:	2421	



Standard Deviation: 8.63528701

## Most Equal Distribution (11 Weights, MN Class AAA)

Weight	No.	Pct.
109	212	8.76%
120	222	9.17%
128	223	9.21%
135	230	9.50%
142	216	8.92%
149	208	8.59%
156	214	8.84%
167	223	9.21%
182	223	9.21%
208	224	9.25%
275	226	9.33%
Total:	2421	



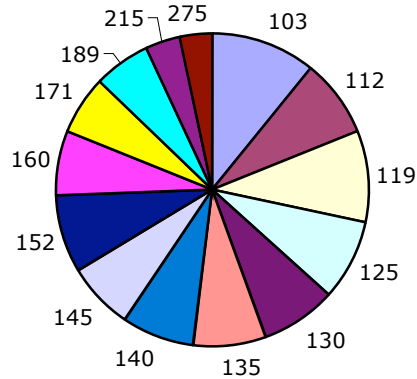
Standard Deviation: 6.65514155

# High School Weight Class Study (Includes MN, ND, SD)

The best fitting set of weights will be the one with the lowest standard deviation.

## Distribution by Certification (No. Dakota)

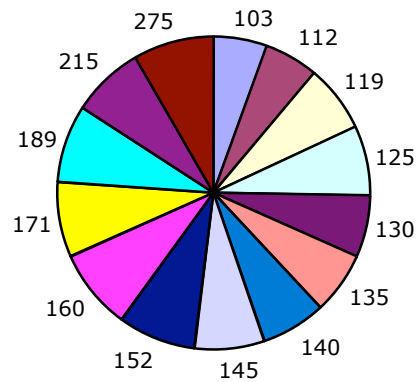
Weight	No.	Pct.
103	129	10.79%
112	97	8.12%
119	113	9.46%
125	100	8.37%
130	92	7.70%
135	90	7.53%
140	88	7.36%
145	84	7.03%
152	98	8.20%
160	78	6.53%
171	73	6.11%
189	70	5.86%
215	44	3.68%
275	39	3.26%
Total:	1195	



Standard Deviation: 24.1074746

## Distribution by Actual Weight (No. Dakota)

Weight	No.	Pct.
103	66	5.52%
112	67	5.61%
119	83	6.95%
125	85	7.11%
130	77	6.44%
135	78	6.53%
140	80	6.69%
145	86	7.20%
152	96	8.03%
160	97	8.12%
171	94	7.87%
189	97	8.12%
215	88	7.36%
275	101	8.45%
Total:	1195	



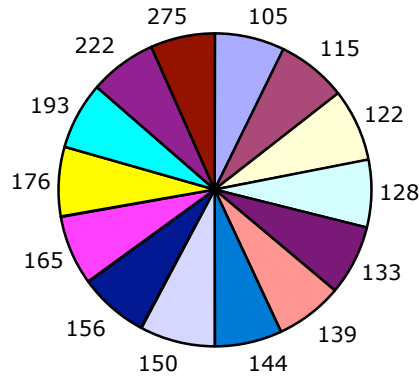
Standard Deviation: 11.0286839

# High School Weight Class Study (Includes MN, ND, SD)

The best fitting set of weights will be the one with the lowest standard deviation.

## Most Equal Distribution (14 Weights, No. Dakota)

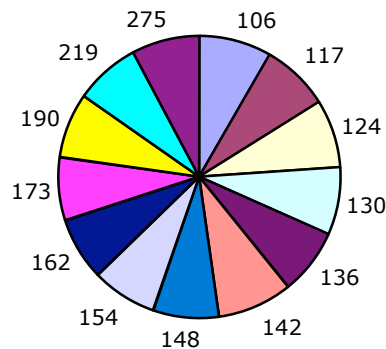
Weight	No.	Pct.
105	85	7.11%
115	87	7.28%
122	89	7.45%
128	85	7.11%
133	84	7.03%
139	83	6.95%
144	83	6.95%
150	93	7.78%
156	88	7.36%
165	87	7.28%
176	85	7.11%
193	83	6.95%
222	84	7.03%
275	79	6.61%
Total:	1195	



Standard Deviation: 3.34220431

## Most Equal Distribution (13 Weights, No. Dakota)

Weight	No.	Pct.
106	99	8.28%
117	95	7.95%
124	91	7.62%
130	93	7.78%
136	91	7.62%
142	103	8.62%
148	89	7.45%
154	88	7.36%
162	88	7.36%
173	87	7.28%
190	89	7.45%
219	90	7.53%
275	92	7.70%
Total:	1195	



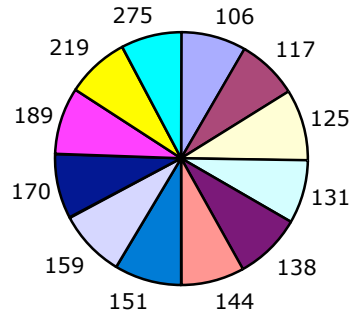
Standard Deviation: 4.66300222

# High School Weight Class Study (Includes MN, ND, SD)

The best fitting set of weights will be the one with the lowest standard deviation.

## Most Equal Distribution (12 Weights, No. Dakota)

Weight	No.	Pct.
106	99	8.28%
117	95	7.95%
125	107	8.95%
131	98	8.20%
138	102	8.54%
144	95	7.95%
151	106	8.87%
159	101	8.45%
170	101	8.45%
189	102	8.54%
219	97	8.12%
275	92	7.70%
Total:	1195	



Standard Deviation: 4.48144322

## Most Equal Distribution (11 Weights, No. Dakota)

Weight	No.	Pct.
107	106	8.87%
119	110	9.21%
127	115	9.62%
134	112	9.37%
141	105	8.79%
148	113	9.46%
155	103	8.62%
166	108	9.04%
184	109	9.12%
214	106	8.87%
275	108	9.04%
Total:	1195	



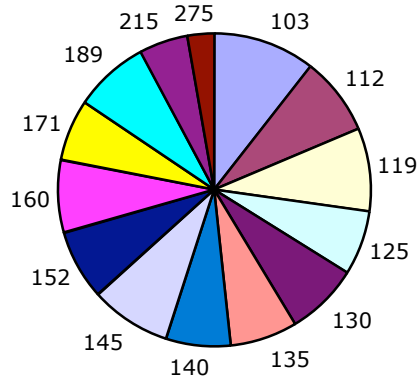
Standard Deviation: 3.64067926

# High School Weight Class Study (Includes MN, ND, SD)

The best fitting set of weights will be the one with the lowest standard deviation.

## Distribution by Certification (So. Dakota)

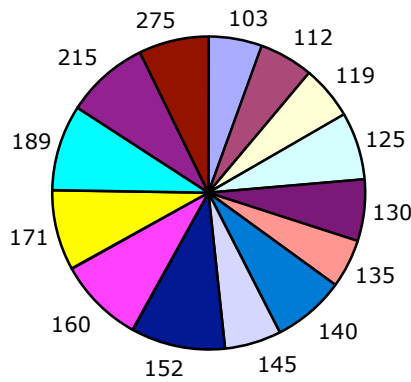
Weight	No.	Pct.
103	205	10.63%
112	152	7.88%
119	166	8.61%
125	133	6.90%
130	141	7.31%
135	135	7.00%
140	131	6.79%
145	157	8.14%
152	142	7.37%
160	141	7.31%
171	123	6.38%
189	152	7.88%
215	94	4.88%
275	56	2.90%
Total:	1928	



Standard Deviation: 33.9987072

## Distribution by Actual Weight (So. Dakota)

Weight	No.	Pct.
103	106	5.50%
112	106	5.50%
119	112	5.81%
125	133	6.90%
130	120	6.22%
135	97	5.03%
140	144	7.47%
145	116	6.02%
152	183	9.49%
160	173	8.97%
171	162	8.40%
189	171	8.87%
215	168	8.71%
275	137	7.11%
Total:	1928	



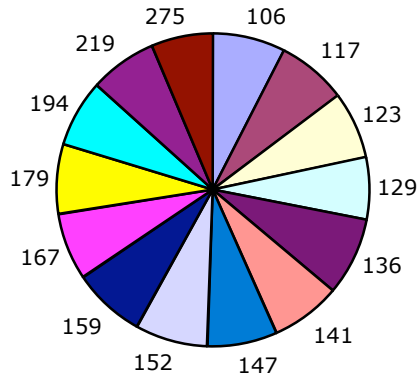
Standard Deviation: 29.2059756

# High School Weight Class Study (Includes MN, ND, SD)

The best fitting set of weights will be the one with the lowest standard deviation.

## Most Equal Distribution (14 Weights, So. Dakota)

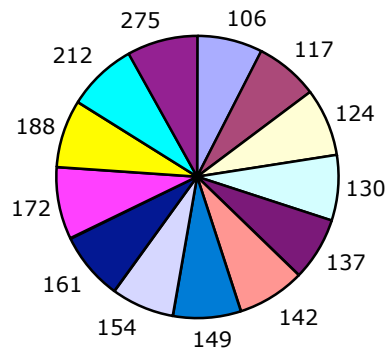
Weight	No.	Pct.
106	142	7.37%
117	140	7.26%
123	135	7.00%
129	126	6.54%
136	152	7.88%
141	140	7.26%
147	140	7.26%
152	142	7.37%
159	146	7.57%
167	134	6.95%
179	138	7.16%
194	138	7.16%
219	132	6.85%
275	123	6.38%
Total:	1928	



Standard Deviation: 7.50823723

## Most Equal Distribution (13 Weights, So. Dakota)

Weight	No.	Pct.
106	142	7.37%
117	140	7.26%
124	150	7.78%
130	145	7.52%
137	142	7.37%
142	146	7.57%
149	154	7.99%
154	140	7.26%
161	149	7.73%
172	160	8.30%
188	148	7.68%
212	156	8.09%
275	156	8.09%
Total:	1928	



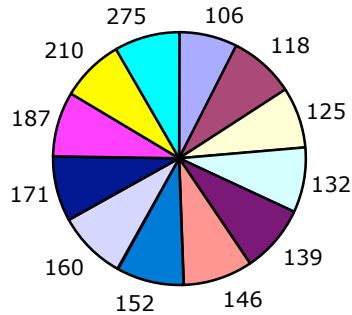
Standard Deviation: 6.61292441

# High School Weight Class Study (Includes MN, ND, SD)

The best fitting set of weights will be the one with the lowest standard deviation.

## Most Equal Distribution (12 Weights, So. Dakota)

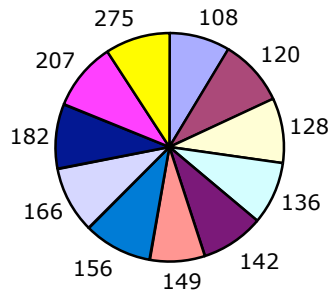
Weight	No.	Pct.
106	142	7.37%
118	161	8.35%
125	154	7.99%
132	159	8.25%
139	167	8.66%
146	171	8.87%
152	163	8.45%
160	173	8.97%
171	162	8.40%
187	159	8.25%
210	158	8.20%
275	159	8.25%
Total:	1928	



Standard Deviation: 8.06037822

## Most Equal Distribution (11 Weights, So. Dakota)

Weight	No.	Pct.
108	168	8.71%
120	180	9.34%
128	177	9.18%
136	170	8.82%
142	170	8.82%
149	154	7.99%
156	188	9.75%
166	178	9.23%
182	180	9.34%
207	184	9.54%
275	179	9.28%
Total:	1928	



Standard Deviation: 9.31762748

## ***High School Weight Class Study (Includes MN, ND, SD)***

**Here is a side-by-side comparison of the best fit for 14 weight classes.**

<b>Combined</b>	<b>MN - A</b>	<b>MN - AA</b>	<b>MN - AAA</b>	<b>No. Dakota</b>	<b>So. Dakota</b>
<b>104</b>	103	103	107	105	106
<b>113</b>	111	111	116	115	117
<b>121</b>	119	121	124	122	123
<b>127</b>	125	127	130	128	129
<b>133</b>	131	133	135	133	136
<b>139</b>	137	139	140	139	141
<b>145</b>	142	144	146	144	147
<b>151</b>	147	150	152	150	152
<b>157</b>	153	157	159	156	159
<b>165</b>	160	164	167	165	167
<b>175</b>	170	173	178	176	179
<b>190</b>	183	188	193	193	194
<b>215</b>	208	212	219	222	219
<b>275</b>	275	275	275	275	275

**Here is a side-by-side comparison of the best fit for 13 weight classes.**

<b>Combined</b>	<b>MN - A</b>	<b>MN - AA</b>	<b>MN - AAA</b>	<b>No. Dakota</b>	<b>So. Dakota</b>
<b>105</b>	104	104	107	106	106
<b>115</b>	113	113	117	117	117
<b>123</b>	121	123	124	124	124
<b>129</b>	128	129	130	130	130
<b>135</b>	134	135	136	136	137
<b>141</b>	139	141	142	142	142
<b>147</b>	145	147	148	148	149
<b>153</b>	151	154	154	154	154
<b>160</b>	158	161	162	162	161
<b>170</b>	168	170	173	173	172
<b>185</b>	180	184	188	190	188
<b>210</b>	205	207	215	219	212
<b>275</b>	275	275	275	275	275

## ***High School Weight Class Study (Includes MN, ND, SD)***

**Here is a side-by-side comparison of the best fit for 12 weight classes.**

<b>Combined</b>	<b>MN - A</b>	<b>MN - AA</b>	<b>MN - AAA</b>	<b>No. Dakota</b>	<b>So. Dakota</b>
<b>106</b>	104	105	108	106	106
<b>117</b>	114	115	118	117	118
<b>125</b>	121	124	126	125	125
<b>132</b>	128	131	133	131	132
<b>138</b>	135	138	139	138	139
<b>144</b>	141	144	145	144	146
<b>151</b>	148	151	152	151	152
<b>159</b>	155	159	160	159	160
<b>169</b>	165	168	171	170	171
<b>184</b>	178	183	186	189	187
<b>209</b>	202	208	210	219	210
<b>275</b>	275	275	275	275	275

**Here is a side-by-side comparison of the best fit for 11 weight classes.**

<b>Combined</b>	<b>MN - A</b>	<b>MN - AA</b>	<b>MN - AAA</b>	<b>No. Dakota</b>	<b>So. Dakota</b>
<b>107</b>	105	106	109	107	108
<b>119</b>	116	118	120	119	120
<b>127</b>	124	127	128	127	128
<b>134</b>	132	135	135	134	136
<b>141</b>	138	141	142	141	142
<b>148</b>	145	148	149	148	149
<b>155</b>	152	157	156	155	156
<b>165</b>	161	167	167	166	166
<b>180</b>	175	182	182	184	182
<b>205</b>	198	206	208	214	207
<b>275</b>	275	275	275	275	275