

NOAA TECHNICAL MEMORANDUM NWS CR-65



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THE UTILIZATION OF LONG TERM TEMPERATURE DATA IN THE DESCRIPTION  
OF FORECAST TEMPERATURES

Arno Perlow  
WSO Columbia, MO

Scientific Services Division  
Central Region Headquarters  
Kansas City, MO  
November 1981

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(Continued on back inside cover)

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UNITED STATES  
DEPARTMENT OF COMMERCE  
Malcolm Baldrige, Secretary

National Oceanic and  
Atmospheric Administration  
John V. Byrne, Administrator

National Weather  
Service  
Richard E. Hallgren, Director



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## 1. INTRODUCTION

This effort was initiated in response to a request from the Central Region Headquarters, National Weather Service, to more fully objectify the process of choosing descriptive adjectives for temperature forecasts.

The initial approach to the problem was to look at the monthly means and the distribution of temperature values around the mean. A cursory look affirmed that the range in temperature values varies a great deal from season to season. The temperature range that could be considered the "seasonal normal" has a much greater span in the winter months than during the summer season. In order to get a more positive picture of what should be considered a normal temperature range and what constitutes a significant deviation from the normal, the decision was made to look at an extensive time series of the daily maximum and minimum temperature data. A tape of daily Columbia data for the period 1900 - 1979 was made available to us by the Department of Atmospheric Science of the University of Missouri/Columbia. The Statistical Analysis System (SAS), on line at the University computer, was used to analyze the data.

## 2. METHOD OF OBJECTIFICATION

The first step involved computing the means and the standard deviation for both the daily maximum and minimum temperatures. Since the number of daily observations exceeded 28,000, the decision was made to consolidate the data by weeks, but at the same time keeping the integrity of the daily data intact. (See Table 2.)

The computed standard deviations for the maximum temperature ranged from near 13°F in the winter to around 6°F in the summer. The range was slightly larger for the minimum temperature.

The next step was to find a means of portraying the distribution around the mean in a fashion that would make it practical and understandable to the user. The most versatile approach was to first rank the maximum and minimum temperatures to the nearest 5° interval for each week of the year. The frequency of occurrence was recorded and a cumulative percentile computed. (See Table 3.)

For example, a maximum temperature of 38 degrees, recorded during the first week of the year, would be included in the group labeled "MAXGROUP" 35 (temperatures from 35 to 39). Looking at Table 3 we find that:

1. Temperatures that fit into that category occurred 90 times during the period of record.
2. They occurred 16.3 percent of the time. (The most common temperature value.)
3. Its cumulative percentile was 67.3.

Forty percent of the observed temperatures falling between 30 to 70 percentile were chosen as representing "seasonable" or near normal temperatures. Values between 30 and 5 percentile represent the "below normal" range but exclude the extremes which were defined as being below the 5 percent ranking. "Above normal" temperatures fall between the 70 and 95 percentile bracket and extreme temperature values above 95 percentile.

A graphic plot of temperature values along the prescribed boundaries was made possible by looking at all the daily maximum temperatures. If a temperature fell in any of the pre-determined ranges of 3-7, 28-32, 68-72, or 93-97 percentile, it was plotted on the graph opposite the corresponding (weekly) date. The same procedure was followed for the minimum temperature.

The finished plot graphically depicts the distribution of temperature values, giving the user a quick reference of the disposition of his temperature forecast. (Figure 1 and 2.)

Returning to the original task of assigning adjectives to temperature forecasts, simple descriptive terms were used to identify particular temperature ranges. Shading was used to make the graph easier to use. (Figures 3 and 4.)

The use of the plot enables all personnel to utilize the same descriptive adjectives in their temperature forecasts, adding a consistency and stability to the final product serving the user.

Having arrived at a preliminary forecast of both max and min temperature, the tables and graphs should be consulted to check the:

1. Mean and extremes for that period of the year. (Consult Table 2.)
2. Distribution of the forecast temperature value within the scope of all recorded values. (Table 3 or graphs.)
3. Adjective to use for temperature forecast.

## Acknowledgements

My sincere appreciation goes to the staff of the Center for Environmental Assessment Services (CEAS/EDIS/NOAA) for their guidance in creating the computer program. Special thanks go to the Center Chief, Dr. Clarence Sakamoto, who made the Center's facilities open to us; to Dr. Sharon LeDuc, the Center's senior statistician, who provided the statistical guidance; and to Ms. Mary Joshua who patiently provided the programming assistance.

The computer facilities of the University of Missouri-Columbia were utilized. Computer time was paid for with funds provided by the Atmospheric Science Department, Dr. Wayne Decker, Department Chairman. The Atmospheric Science Department also provided the tape of Columbia data used in the program.

My gratitude goes to Dave Horner, Meteorologist-in-Charge (retired) of the WSO Columbia, for his encouragement and assistance.



CONVERSION TABLE

Week	starts with Julian Day
1	1
2	8
3	15
4	22
5	29
6	36
7	43
8	50
9	57
10	64
11	71
12	78
13	85
14	92
15	99
16	106
17	113
18	120
19	127
20	134
21	141
22	148
23	155
24	162
25	169
26	176
27	183
28	190
29	197
30	204
31	211
32	218
33	225
34	232
35	239
36	246
37	253
38	260
39	267
40	274
41	281
42	288
43	295
44	302
45	309
46	316
47	323
48	330
49	337
50	344
51	351
52	358

Some calendars have Julian Day  
printed on them.

TABLE 1

S T A T I S T I C A L   A N A L Y S I S   S Y S T E M   12:38 FRIDAY, SEPTEMBER 5, 1980   1

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
TX	553	38.00723327	13.65742691	-3.00000000	75.00000000	0.58077287	21018.000000	186.52530990	35.934
TN	553	20.81374322	12.57108884	-20.00000000	57.00000000	0.53457707	11510.000000	158.03227453	60.398
----- WK=1 -----									
TX	553	38.28933092	13.50494455	-5.00000000	71.00000000	0.57428866	21174.000000	182.38352727	35.271
TN	553	20.62929476	12.55978496	-19.00000000	54.00000000	0.53409638	11408.000000	157.74819823	60.883
----- WK=2 -----									
TX	553	38.70705244	14.13114958	-1.00000000	73.00000000	0.60091761	21405.000000	199.68938858	36.508
TN	553	21.28028933	13.07140057	-18.00000000	61.00000000	0.55583249	11768.000000	170.86151296	61.425
----- WK=3 -----									
TX	553	38.75045208	14.57026717	-2.00000000	77.00000000	0.61959078	21429.000000	212.29268548	37.600
TN	553	19.94575045	13.45001296	-16.00000000	57.00000000	0.57195273	11030.000000	180.90284876	67.433
----- WK=4 -----									
TX	553	38.52260398	13.82341845	-2.00000000	81.00000000	0.58783155	21303.000000	191.08689735	35.884
TN	553	20.25316456	12.72767703	-14.00000000	53.00000000	0.54123588	11200.000000	161.99376261	62.843
----- WK=5 -----									
TX	553	40.49909584	13.63979217	1.00000000	77.00000000	0.58002296	22396.000000	186.04393034	33.679
TN	553	21.97468354	11.95777941	-10.00000000	63.00000000	0.50849650	12152.000000	142.98848835	54.416
----- WK=6 -----									
TX	553	42.79204340	13.97027674	-1.00000000	78.00000000	0.59407660	23664.000000	195.16863223	32.647
TN	553	24.08860759	11.80016720	-25.00000000	58.00000000	0.50179415	13321.000000	139.24394606	48.987
----- WK=7 -----									
TX	553	43.71790235	12.82518983	10.00000000	81.00000000	0.54538255	24176.000000	164.48549414	29.336
TN	553	25.33092224	10.79355360	-6.00000000	61.00000000	0.45898859	14008.000000	116.50079933	42.610
----- WK=8 -----									
TX	552	46.98369565	13.45260473	12.00000000	82.00000000	0.57258939	25935.000000	180.97795510	28.633
TN	552	27.71014493	10.31092167	-14.00000000	56.00000000	0.43886197	15296.000000	106.31510551	37.210
----- WK=9 -----									
TX	553	49.11211573	13.34037736	12.00000000	85.00000000	0.56729055	27159.000000	177.96566816	27.163
TN	553	29.69801085	10.13590331	-9.00000000	63.00000000	0.43102245	16423.000000	102.73653539	34.130
----- WK=10 -----									
TX	553	52.92766727	13.99000038	16.00000000	90.00000000	0.59449009	29269.000000	195.44041067	26.413
TN	553	32.67028608	10.32656112	-5.00000000	62.00000000	0.43913005	18067.000000	106.63786461	31.608
----- WK=11 -----									

TABLE 2. TEMPERATURE STATISTICS BY WEEK OF THE YEAR FOR COLUMBIA, MO

S T A T I S T I C A L   A N A L Y S I S   S Y S T E M   12:38 FRIDAY, SEPTEMBER 5, 1980   2

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
TX	553	56.36166365	14.26913077	21.00000000	92.00000000	0.60678516	31168.000000	203.60809288	25.317
TN	553	35.67992767	10.41149267	0.00000000	66.00000000	0.44274170	19731.000000	108.39917970	29.180
----- WK=12 -----									
TX	553	58.09318264	13.38505640	21.00000000	88.00000000	0.56919050	32120.000000	179.15973478	23.045
TN	553	37.64195298	9.97161794	4.00000000	66.00000000	0.42403633	20816.000000	99.43316429	26.491
----- WK=13 -----									
TX	553	61.72151899	12.37466980	30.00000000	88.00000000	0.52622449	34132.000000	153.13245276	20.049
TN	553	40.63652803	9.06577636	14.00000000	70.00000000	0.38551603	22472.000000	82.18830097	22.309
----- WK=14 -----									
TX	553	63.00542495	11.39992561	37.00000000	93.00000000	0.48477415	34842.000000	129.95830385	18.094
TN	553	42.09403255	9.13477096	21.00000000	67.00000000	0.38844997	23278.000000	83.44404041	21.701
----- WK=15 -----									
TX	553	67.50271248	11.08663560	38.00000000	91.00000000	0.47145170	37329.000000	122.91348901	16.424
TN	553	45.98010850	9.14702585	25.00000000	70.00000000	0.38897111	25427.000000	83.66808187	19.893
----- WK=16 -----									
TX	553	69.02893309	10.77348606	36.00000000	91.00000000	0.45813523	38173.000000	116.06800194	13.607
TN	553	48.13331555	8.41260459	27.00000000	67.00000000	0.35774034	26618.000000	70.77191603	17.478
----- WK=17 -----									
TX	553	71.13200723	10.75815864	43.00000000	93.00000000	0.45748344	39336.000000	115.73797730	13.124
TN	553	50.20795660	8.68418154	28.00000000	69.00000000	0.36928896	27765.000000	75.41500904	17.296
----- WK=18 -----									
TX	553	72.08499096	9.28601542	45.00000000	93.00000000	0.39488154	39863.000000	86.23008229	12.882
TN	553	51.21157324	7.82094062	31.00000000	71.00000000	0.33258023	28320.000000	61.16711219	15.272
----- WK=19 -----									
TX	553	75.01627486	9.40675574	47.00000000	92.00000000	0.40001594	41484.000000	88.48705349	12.540
TN	553	53.96925859	7.45766766	36.00000000	72.00000000	0.31713229	29845.000000	55.61680688	13.818
----- WK=20 -----									
TX	553	77.80216998	7.99552382	56.00000000	94.00000000	0.34000426	42914.000000	63.92840108	10.303
TN	553	57.20253165	7.48807221	33.00000000	73.00000000	0.31842522	31633.000000	56.07122546	13.090
----- WK=21 -----									
TX	553	78.78842676	7.85676183	54.00000000	101.00000000	0.33410350	43570.000000	61.72870640	9.972
TN	553	58.78300181	6.78045468	39.00000000	75.00000000	0.28833426	32507.000000	45.97456561	11.535

TABLE 2 (CONT.)

S T A T I S T I C A L      A N A L Y S I S      S Y S T E M      12:38 FRIDAY, SEPTEMBER 5, 1960      3

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
TX	553	81.56962025	7.77765864	56.00000000	102.00000000	0.33073969	45108.000000	60.49197395	9.535
TN	553	61.46292948	6.53495202	43.00000000	76.00000000	0.27789443	33989.000000	42.70559792	10.632
----- WK=23 -----									
TX	553	83.09222423	7.51981640	62.00000000	101.00000000	0.31977512	45950.000000	56.54763870	9.050
TN	553	62.58589512	6.49388927	42.00000000	76.00000000	0.27614826	34610.000000	42.17059779	10.376
----- WK=24 -----									
TX	553	84.84448463	7.04471043	61.00000000	105.00000000	0.29957156	46919.000000	49.62794507	8.303
TN	553	64.37251356	5.91780386	43.00000000	78.00000000	0.25165062	35598.000000	35.02040255	9.193
----- WK=25 -----									
TX	553	86.76311031	7.24843405	63.00000000	104.00000000	0.30823477	47980.000000	52.53979611	8.354
TN	553	65.93128391	6.02010352	48.00000000	80.00000000	0.25600084	36460.000000	36.24164636	9.131
----- WK=26 -----									
TX	553	87.81555154	6.79822897	63.00000000	106.00000000	0.28909010	48562.000000	46.21591713	7.741
TN	553	66.45207957	5.92204493	49.00000000	80.00000000	0.25183097	36748.000000	35.07061614	8.912
----- WK=27 -----									
TX	553	88.67088608	6.90385595	63.00000000	113.00000000	0.29358182	49035.000000	47.66322693	7.786
TN	553	67.05967450	5.67332794	48.00000000	80.00000000	0.24125444	37084.000000	32.18664989	8.460
----- WK=28 -----									
TX	553	89.00904159	6.71454116	69.00000000	111.00000000	0.28553133	49222.000000	45.08506303	7.544
TN	553	67.66365280	5.47713287	50.00000000	84.00000000	0.23291138	37418.000000	29.99898446	8.095
----- WK=29 -----									
TX	553	89.84086799	6.70009685	69.00000000	111.00000000	0.28491710	49682.000000	44.89129780	7.458
TN	553	68.03074141	5.59057135	50.00000000	99.00000000	0.23773528	37621.000000	31.25448804	8.218
----- WK=30 -----									
TX	553	88.91320072	6.96547303	68.00000000	108.00000000	0.29620204	49169.000000	48.51781456	7.634
TN	553	66.94394213	5.66213318	50.00000000	84.00000000	0.24928326	37020.000000	34.36460545	8.757
----- WK=31 -----									
TX	553	88.04701627	7.26176925	70.00000000	110.00000000	0.30880184	48690.000000	52.73329271	8.248
TN	553	66.67450271	5.75927269	51.00000000	80.00000000	0.24490919	36871.000000	33.16922190	8.638
----- WK=32 -----									
TX	553	87.69801085	6.79334817	65.00000000	108.00000000	0.28888255	48497.000000	46.14957937	7.746
TN	553	66.70162749	5.23812815	47.00000000	81.00000000	0.22274787	36886.000000	27.43798648	7.853
----- WK=33 -----									

TABLE 2. (CONT.)

S T A T I S T I C A L   A N A L Y S I S   S Y S T E M   12:38 FRIDAY, SEPTEMBER 5, 1980   4

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
TX	553	86.12477396	7.77868588	64.00000000	105.00000000	0.33078337	47627.000000	60.50795398	9.032
TN	553	64.17540687	6.54637657	46.00000000	85.00000000	0.27838025	35489.000000	42.85504626	10.201
----- WK=34 -----									
TX	553	85.96202532	7.84244797	61.00000000	104.00000000	0.33349481	47537.000000	61.50399009	9.123
TN	553	64.08318264	6.65399706	40.00000000	81.00000000	0.28295674	35438.000000	44.27567681	10.383
----- WK=35 -----									
TX	553	84.05967450	8.53180651	62.00000000	103.00000000	0.36280932	46485.000000	72.79172236	10.150
TN	553	62.30560579	7.19970720	40.00000000	76.00000000	0.30616269	34455.000000	51.83578374	11.555
----- WK=36 -----									
TX	553	80.53345359	8.99110179	54.00000000	101.00000000	0.38234054	44535.000000	80.83991142	11.164
TN	553	59.09764919	8.10491966	33.00000000	79.00000000	0.34465624	32681.000000	65.68972272	13.714
----- WK=37 -----									
TX	553	78.67631103	9.31737699	53.00000000	97.00000000	0.39621517	43508.000000	86.81331390	11.843
TN	553	56.88788427	8.53053433	32.00000000	78.00000000	0.36275322	31459.000000	72.77001599	14.995
----- WK=38 -----									
TX	553	74.54792043	9.27957279	45.00000000	99.00000000	0.39460757	41225.000000	86.11047121	12.448
TN	553	52.91139241	8.52794407	33.00000000	74.00000000	0.36264507	29260.000000	72.72583012	16.117
----- WK=39 -----									
TX	553	74.28933092	9.19157095	48.00000000	96.00000000	0.39086536	41082.000000	84.48497654	12.373
TN	553	51.81012658	8.49201066	30.00000000	73.00000000	0.36111703	28651.000000	72.11424509	16.391
----- WK=40 -----									
TX	553	70.95840868	9.68264952	42.00000000	92.00000000	0.41174814	39240.000000	93.75370181	13.646
TN	553	48.17179024	9.13135623	23.00000000	69.00000000	0.38830476	28639.000000	83.38166654	18.956
----- WK=41 -----									
TX	553	68.74683544	10.55271077	39.00000000	89.00000000	0.44874691	38017.000000	111.35970464	15.350
TN	553	46.30922242	9.11084349	22.00000000	68.00000000	0.38743247	25609.000000	83.00746914	19.674
----- WK=42 -----									
TX	553	64.45569620	11.44403241	32.00000000	91.00000000	0.48664976	35644.000000	130.96587782	17.755
TN	553	42.95340868	9.25289256	20.00000000	69.00000000	0.39347302	23756.000000	85.61602065	21.539
----- WK=43 -----									
TX	553	61.07052441	11.99971690	26.00000000	89.00000000	0.51027987	33772.000000	143.99320570	19.649
TN	553	40.88969259	10.09647945	14.00000000	67.00000000	0.42934598	22612.000000	101.93889719	24.692

TABLE 2. (CONT.)

S T A T I S T I C A L    A N A L Y S I S    S Y S T E M    12:36 FRIDAY, SEPTEMBER 5, 1980    5

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
TX	553	58.16094033	11.49485363	30.00000000	84.00000000	0.48881090	32163.000000	132.13165998	19.764
TN	553	37.35443038	9.67052631	13.00000000	63.00000000	0.41123261	20657.000000	93.51907907	25.889
----- WK=45 -----									
TX	553	54.42857143	12.95375194	17.00000000	81.00000000	0.55084956	30099.000000	167.79968944	23.800
TN	553	34.97106691	11.15759450	4.00000000	62.00000000	0.47446918	19339.000000	124.49191498	31.905
----- WK=46 -----									
TX	553	51.22061483	11.90428958	10.00000000	80.00000000	0.50622189	28325.000000	141.71211049	23.241
TN	553	32.17721519	9.38938586	4.00000000	64.00000000	0.39927730	17794.000000	88.16056687	29.180
----- WK=47 -----									
TX	553	47.16817360	11.73818863	16.00000000	77.00000000	0.49915855	26084.000000	137.78507220	24.886
TN	553	29.66365280	9.98707856	-3.00000000	61.00000000	0.42469378	16404.000000	99.74173808	33.668
----- WK=48 -----									
TX	553	44.64737794	12.85074849	7.00000000	73.00000000	0.54646941	24690.000000	165.14173677	28.783
TN	553	27.56057866	10.81834699	-9.00000000	57.00000000	0.46004291	15241.000000	117.03663155	39.253
----- WK=49 -----									
TX	553	40.18987342	13.10154483	1.00000000	75.00000000	0.55713436	22225.000000	171.65047698	32.599
TN	553	23.50452080	11.75676175	-15.00000000	55.00000000	0.49994836	12998.000000	138.22144692	50.019
----- WK=50 -----									
TX	553	40.24231465	12.31276657	1.00000000	71.00000000	0.52359209	22254.000000	151.60422072	30.597
TN	553	23.71790235	11.27023082	-23.00000000	54.00000000	0.47925896	13116.000000	127.01810284	47.518
----- WK=51 -----									
TX	553	39.81374322	11.79994900	3.00000000	72.00000000	0.50178487	22017.000000	139.23879629	29.638
TN	553	23.18987342	10.81875245	-12.00000000	53.00000000	0.46006015	12824.000000	117.04540451	46.653
----- WK=52 -----									
TX	99	39.90909091	13.19870967	7.00000000	72.00000000	1.32652023	3951.000000	174.20593692	33.072
TN	99	22.86868687	11.85511727	-12.00000000	45.00000000	1.19148412	2264.000000	140.54380540	51.840
----- WK=53 -----									

\* Week 53 includes only the 365th day, and the 366 day during leap years.

TABLE 2. (CONT.)

STATISTICAL ANALYSIS SYSTEM  
WK=1

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
-10	3	3	0.542	0.542
-5	4	7	0.723	1.265
0	7	14	1.106	2.371
5	10	24	1.808	4.179
10	29	53	5.224	9.403
15	43	96	7.776	17.179
20	54	150	10.438	27.617
25	58	210	10.127	37.744
30	72	282	13.020	50.764
35	90	372	16.275	67.039
40	64	436	11.573	78.612
45	56	492	10.127	88.739
50	36	528	6.510	95.249
55	15	543	2.712	97.961
60	7	550	1.266	99.227
65	2	552	0.362	99.589
70	1	553	0.181	100.000

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
-25	2	2	0.362	0.362
-20	4	6	0.723	1.085
-15	11	17	1.959	3.044
-10	20	37	3.617	7.661
-5	26	63	4.702	12.363
0	41	104	7.414	19.777
5	49	153	8.861	28.638
10	66	219	11.935	40.573
15	95	314	17.179	57.752
20	102	416	18.445	76.197
25	76	492	13.743	89.940
30	53	545	9.967	99.907
35	17	562	3.074	102.981
40	3	565	1.266	104.247
45	3	568	0.542	104.789
50	1	569	0.181	105.000

STATISTICAL ANALYSIS SYSTEM  
WK=2

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
-10	1	1	0.181	0.181
-5	6	7	1.085	1.266
0	6	13	1.085	2.351
5	13	26	2.351	4.702
10	24	50	4.364	9.066
15	35	85	6.353	15.419
20	43	128	7.776	23.195
25	81	209	14.647	37.842
30	84	293	15.190	53.032
35	82	375	14.823	67.855
40	68	443	12.297	80.152
45	45	488	8.157	88.309
50	38	526	6.872	95.181
55	15	541	2.712	97.893
60	10	551	1.808	99.701
65	2	553	0.362	100.000

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
-25	5	5	0.904	0.904
-20	6	11	1.085	1.989
-15	9	20	1.628	3.617
-10	16	36	2.915	6.532
-5	30	66	5.429	11.961
0	44	110	7.937	19.898
5	54	164	9.761	29.659
10	81	245	14.647	44.306
15	87	332	15.552	59.858
20	100	432	18.082	77.940
25	81	513	14.647	92.587
30	45	558	8.157	100.744
35	11	569	1.989	102.733
40	4	573	0.723	103.456
45	2	575	0.362	103.818

TABLE 3. TEMPERATURE STATISTICS BY WEEK OF THE YEAR FOR COLUMBIA, MO  
MAX GROUP INCLUDES THE GIVEN TEMPERATURE AND THE NEXT HIGHER  
4; e.g., 35 MEANS 35-39, INCLUSIVE.

STATISTICAL ANALYSIS SYSTEM

WK=3

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
-10	1	1	0.181	0.181
0	2	3	0.545	0.726
1	1	4	0.181	0.907
2	15	15	2.727	3.634
3	20	35	3.636	7.270
4	43	78	7.727	15.000
5	51	129	9.091	24.091
6	68	197	12.273	36.364
7	77	274	13.818	50.182
8	81	355	14.545	64.727
9	56	411	10.545	75.273
10	61	472	11.455	86.727
11	42	514	7.273	94.000
12	29	543	5.182	99.182
13	9	552	1.627	100.809
14	6	558	1.085	100.000

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.25	2	2	0.362	0.362
.5	6	8	1.085	1.447
1	7	15	1.250	2.712
2	27	42	4.545	7.257
3	22	64	3.978	11.235
4	45	109	8.137	19.372
5	48	157	8.680	28.052
6	59	216	10.669	38.721
7	87	303	15.732	54.453
8	87	390	15.732	70.185
9	91	481	16.456	86.641
10	46	527	8.310	94.951
11	16	543	2.893	97.844
12	5	548	0.904	98.748
13	15	563	2.723	100.471
14	1	564	0.181	100.000

STATISTICAL ANALYSIS SYSTEM

WK=4

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
-10	1	1	0.181	0.181
0	17	18	3.256	3.437
1	31	49	5.456	8.893
2	53	102	6.806	15.699
3	53	155	6.806	22.505
4	74	229	9.323	31.828
5	67	296	8.582	40.410
6	77	373	9.224	49.634
7	57	430	7.307	56.941
8	51	481	6.222	63.163
9	29	510	3.244	66.407
10	32	542	3.787	70.194
11	10	552	1.808	72.002
12	6	558	1.085	73.087
13	4	562	0.723	73.810

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.25	2	2	0.362	0.362
.5	2	4	0.362	0.723
1	18	22	3.255	3.978
2	20	42	3.617	7.595
3	35	77	6.329	13.924
4	53	130	9.284	23.208
5	54	184	9.765	32.973
6	63	247	11.392	44.365
7	84	331	15.190	59.555
8	74	405	13.382	72.937
9	79	484	14.286	87.223
10	45	529	8.137	95.360
11	10	539	1.803	97.163
12	6	545	1.085	98.248
13	7	552	1.250	99.498
14	1	553	0.181	100.000

TABLE 3. (CONT.)



STATISTICAL ANALYSIS SYSTEM  
WK=7

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
-10	1	1	0.121	0.121
0	1	2	0.121	0.242
5	1	3	0.121	0.363
10	1	4	0.121	0.484
15	1	5	0.121	0.605
20	1	6	0.121	0.726
25	1	7	0.121	0.847
30	1	8	0.121	0.968
35	1	9	0.121	1.089
40	1	10	0.121	1.210
45	1	11	0.121	1.331
50	1	12	0.121	1.452
55	1	13	0.121	1.573
60	1	14	0.121	1.694
65	1	15	0.121	1.815
70	1	16	0.121	1.936
75	1	17	0.121	2.057
80	1	18	0.121	2.178
85	1	19	0.121	2.299
90	1	20	0.121	2.420
95	1	21	0.121	2.541
100	1	22	0.121	2.662
105	1	23	0.121	2.783
110	1	24	0.121	2.904
115	1	25	0.121	3.025
120	1	26	0.121	3.146
125	1	27	0.121	3.267
130	1	28	0.121	3.388
135	1	29	0.121	3.509
140	1	30	0.121	3.630
145	1	31	0.121	3.751
150	1	32	0.121	3.872
155	1	33	0.121	3.993
160	1	34	0.121	4.114
165	1	35	0.121	4.235
170	1	36	0.121	4.356
175	1	37	0.121	4.477
180	1	38	0.121	4.598
185	1	39	0.121	4.719
190	1	40	0.121	4.840
195	1	41	0.121	4.961
200	1	42	0.121	5.082
205	1	43	0.121	5.203
210	1	44	0.121	5.324
215	1	45	0.121	5.445
220	1	46	0.121	5.566
225	1	47	0.121	5.687
230	1	48	0.121	5.808
235	1	49	0.121	5.929
240	1	50	0.121	6.050
245	1	51	0.121	6.171
250	1	52	0.121	6.292
255	1	53	0.121	6.413
260	1	54	0.121	6.534
265	1	55	0.121	6.655
270	1	56	0.121	6.776
275	1	57	0.121	6.897
280	1	58	0.121	7.018
285	1	59	0.121	7.139
290	1	60	0.121	7.260
295	1	61	0.121	7.381
300	1	62	0.121	7.502
305	1	63	0.121	7.623
310	1	64	0.121	7.744
315	1	65	0.121	7.865
320	1	66	0.121	7.986
325	1	67	0.121	8.107
330	1	68	0.121	8.228
335	1	69	0.121	8.349
340	1	70	0.121	8.470
345	1	71	0.121	8.591
350	1	72	0.121	8.712
355	1	73	0.121	8.833
360	1	74	0.121	8.954
365	1	75	0.121	9.075
370	1	76	0.121	9.196
375	1	77	0.121	9.317
380	1	78	0.121	9.438
385	1	79	0.121	9.559
390	1	80	0.121	9.680
395	1	81	0.121	9.801
400	1	82	0.121	9.922
405	1	83	0.121	10.043
410	1	84	0.121	10.164
415	1	85	0.121	10.285
420	1	86	0.121	10.406
425	1	87	0.121	10.527
430	1	88	0.121	10.648
435	1	89	0.121	10.769
440	1	90	0.121	10.890
445	1	91	0.121	11.011
450	1	92	0.121	11.132
455	1	93	0.121	11.253
460	1	94	0.121	11.374
465	1	95	0.121	11.495
470	1	96	0.121	11.616
475	1	97	0.121	11.737
480	1	98	0.121	11.858
485	1	99	0.121	11.979
490	1	100	0.121	12.100
495	1	101	0.121	12.221
500	1	102	0.121	12.342
505	1	103	0.121	12.463
510	1	104	0.121	12.584
515	1	105	0.121	12.705
520	1	106	0.121	12.826
525	1	107	0.121	12.947
530	1	108	0.121	13.068
535	1	109	0.121	13.189
540	1	110	0.121	13.310
545	1	111	0.121	13.431
550	1	112	0.121	13.552
555	1	113	0.121	13.673
560	1	114	0.121	13.794
565	1	115	0.121	13.915
570	1	116	0.121	14.036
575	1	117	0.121	14.157
580	1	118	0.121	14.278
585	1	119	0.121	14.399
590	1	120	0.121	14.520
595	1	121	0.121	14.641
600	1	122	0.121	14.762
605	1	123	0.121	14.883
610	1	124	0.121	15.004
615	1	125	0.121	15.125
620	1	126	0.121	15.246
625	1	127	0.121	15.367
630	1	128	0.121	15.488
635	1	129	0.121	15.609
640	1	130	0.121	15.730
645	1	131	0.121	15.851
650	1	132	0.121	15.972
655	1	133	0.121	16.093
660	1	134	0.121	16.214
665	1	135	0.121	16.335
670	1	136	0.121	16.456
675	1	137	0.121	16.577
680	1	138	0.121	16.698
685	1	139	0.121	16.819
690	1	140	0.121	16.940
695	1	141	0.121	17.061
700	1	142	0.121	17.182
705	1	143	0.121	17.303
710	1	144	0.121	17.424
715	1	145	0.121	17.545
720	1	146	0.121	17.666
725	1	147	0.121	17.787
730	1	148	0.121	17.908
735	1	149	0.121	18.029
740	1	150	0.121	18.150
745	1	151	0.121	18.271
750	1	152	0.121	18.392
755	1	153	0.121	18.513
760	1	154	0.121	18.634
765	1	155	0.121	18.755
770	1	156	0.121	18.876
775	1	157	0.121	18.997
780	1	158	0.121	19.118
785	1	159	0.121	19.239
790	1	160	0.121	19.360
795	1	161	0.121	19.481
800	1	162	0.121	19.602
805	1	163	0.121	19.723
810	1	164	0.121	19.844
815	1	165	0.121	19.965
820	1	166	0.121	20.086
825	1	167	0.121	20.207
830	1	168	0.121	20.328
835	1	169	0.121	20.449
840	1	170	0.121	20.570
845	1	171	0.121	20.691
850	1	172	0.121	20.812
855	1	173	0.121	20.933
860	1	174	0.121	21.054
865	1	175	0.121	21.175
870	1	176	0.121	21.296
875	1	177	0.121	21.417
880	1	178	0.121	21.538
885	1	179	0.121	21.659
890	1	180	0.121	21.780
895	1	181	0.121	21.901
900	1	182	0.121	22.022
905	1	183	0.121	22.143
910	1	184	0.121	22.264
915	1	185	0.121	22.385
920	1	186	0.121	22.506
925	1	187	0.121	22.627
930	1	188	0.121	22.748
935	1	189	0.121	22.869
940	1	190	0.121	22.990
945	1	191	0.121	23.111
950	1	192	0.121	23.232
955	1	193	0.121	23.353
960	1	194	0.121	23.474
965	1	195	0.121	23.595
970	1	196	0.121	23.716
975	1	197	0.121	23.837
980	1	198	0.121	23.958
985	1	199	0.121	24.079
990	1	200	0.121	24.200
995	1	201	0.121	24.321
1000	1	202	0.121	24.442
1005	1	203	0.121	24.563
1010	1	204	0.121	24.684
1015	1	205	0.121	24.805
1020	1	206	0.121	24.926
1025	1	207	0.121	25.047
1030	1	208	0.121	25.168
1035	1	209	0.121	25.289
1040	1	210	0.121	25.410
1045	1	211	0.121	25.531
1050	1	212	0.121	25.652
1055	1	213	0.121	25.773
1060	1	214	0.121	25.894
1065	1	215	0.121	26.015
1070	1	216	0.121	26.136
1075	1	217	0.121	26.257
1080	1	218	0.121	26.378
1085	1	219	0.121	26.499
1090	1	220	0.121	26.620
1095	1	221	0.121	26.741
1100	1	222	0.121	26.862
1105	1	223	0.121	26.983
1110	1	224	0.121	27.104
1115	1	225	0.121	27.225
1120	1	226	0.121	27.346
1125	1	227	0.121	27.467
1130	1	228	0.121	27.588
1135	1	229	0.121	27.709
1140	1	230	0.121	27.830
1145	1	231	0.121	27.951
1150	1	232	0.121	28.072
1155	1	233	0.121	28.193
1160	1	234	0.121	28.314
1165	1	235	0.121	28.435
1170	1	236	0.121	28.556
1175	1	237	0.121	28.677
1180	1	238	0.121	28.798
1185	1	239	0.121	28.919
1190	1	240	0.121	29.040
1195	1	241	0.121	29.161
1200	1	242	0.121	29.282
1205	1	243	0.121	29.403
1210	1	244	0.121	29.524
1215	1	245	0.121	29.645
1220	1	246	0.121	29.766
1225	1	247	0.121	29.887
1230	1	248	0.121	30.008
1235	1	249	0.121	30.129
1240	1	250	0.121	30.250
1245	1	251	0.121	30.371
1250	1	252	0.121	30.492
1255	1	253	0.121	30.613
1260	1	254	0.121	30.734
1265	1	255	0.121	30.855
1270	1	256	0.121	30.976
1275	1	257	0.121	31.097
1280	1	258		

STATISTICAL ANALYSIS SYSTEM  
WK=9

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
5	1	1	0.181	0.181
10	3	4	0.906	1.087
15	12	16	2.174	3.261
20	31	49	5.616	8.877
25	57	106	10.326	19.203
30	69	175	12.500	31.703
35	77	252	13.949	45.652
40	71	323	12.862	58.514
45	73	396	13.225	71.739
50	46	442	8.333	80.072
55	32	474	6.420	86.493
60	24	518	4.548	91.041
65	18	536	3.361	94.402
70	13	549	2.458	96.860
75	3	552	0.543	100.000

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
-20	1	1	0.181	0.181
-10	4	5	0.723	0.904
-5	6	11	1.552	2.456
0	12	23	2.170	4.626
5	14	37	2.532	7.158
10	12	49	2.170	9.328
15	37	86	6.691	16.019
20	68	154	12.297	28.316
25	114	269	20.615	48.931
30	139	408	25.136	74.067
35	72	480	13.020	87.087
35	46	526	8.518	95.605
40	21	547	3.797	99.402
45	13	560	2.351	101.753
50	2	562	0.358	102.111
60	1	563	0.181	102.292

STATISTICAL ANALYSIS SYSTEM  
WK=10

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
5	1	1	0.181	0.181
10	3	4	0.906	1.087
15	5	9	1.266	2.353
20	14	23	2.532	5.085
25	47	70	8.499	13.584
30	72	142	13.020	26.604
35	71	213	12.859	39.463
40	71	284	12.859	52.322
45	77	361	13.924	66.246
50	59	420	10.669	76.915
55	40	460	10.850	87.765
60	29	513	5.272	93.037
65	21	534	3.797	96.834
70	11	545	1.989	98.823
75	7	552	1.266	100.089
80	1	553	0.181	100.270

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
-15	1	1	0.181	0.181
-10	4	5	0.723	0.904
-5	3	8	0.542	1.446
0	12	20	2.170	3.617
5	20	40	3.617	7.233
10	37	77	6.691	13.924
15	68	145	12.297	26.221
20	114	259	20.615	46.836
25	139	398	25.136	71.972
30	72	470	13.020	84.992
35	46	516	8.518	93.510
40	21	537	3.797	97.307
45	13	550	2.351	99.658
50	2	552	0.358	100.016
60	1	553	0.181	100.197

TABLE 3. (CONT.)

STATISTICAL ANALYSIS SYSTEM  
WK=11

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
10	1	1	0.181	0.181
15	1	2	0.181	0.362
20	1	3	0.181	0.543
25	1	4	0.181	0.724
30	1	5	0.181	0.905
35	1	6	0.181	1.086
40	1	7	0.181	1.267
45	1	8	0.181	1.448
50	1	9	0.181	1.629
55	1	10	0.181	1.810
60	1	11	0.181	1.991
65	1	12	0.181	2.172
70	1	13	0.181	2.353
75	1	14	0.181	2.534
80	1	15	0.181	2.715
85	1	16	0.181	2.896
90	1	17	0.181	3.077
95	1	18	0.181	3.258
100	1	19	0.181	3.439
105	1	20	0.181	3.620
110	1	21	0.181	3.801
115	1	22	0.181	3.982
120	1	23	0.181	4.163
125	1	24	0.181	4.344
130	1	25	0.181	4.525
135	1	26	0.181	4.706
140	1	27	0.181	4.887
145	1	28	0.181	5.068
150	1	29	0.181	5.249
155	1	30	0.181	5.430
160	1	31	0.181	5.611
165	1	32	0.181	5.792
170	1	33	0.181	5.973
175	1	34	0.181	6.154
180	1	35	0.181	6.335
185	1	36	0.181	6.516
190	1	37	0.181	6.697
195	1	38	0.181	6.878
200	1	39	0.181	7.059
205	1	40	0.181	7.240
210	1	41	0.181	7.421
215	1	42	0.181	7.602
220	1	43	0.181	7.783
225	1	44	0.181	7.964
230	1	45	0.181	8.145
235	1	46	0.181	8.326
240	1	47	0.181	8.507
245	1	48	0.181	8.688
250	1	49	0.181	8.869
255	1	50	0.181	9.050
260	1	51	0.181	9.231
265	1	52	0.181	9.412
270	1	53	0.181	9.593
275	1	54	0.181	9.774
280	1	55	0.181	9.955
285	1	56	0.181	10.136
290	1	57	0.181	10.317
295	1	58	0.181	10.498
300	1	59	0.181	10.679
305	1	60	0.181	10.860
310	1	61	0.181	11.041
315	1	62	0.181	11.222
320	1	63	0.181	11.403
325	1	64	0.181	11.584
330	1	65	0.181	11.765
335	1	66	0.181	11.946
340	1	67	0.181	12.127
345	1	68	0.181	12.308
350	1	69	0.181	12.489
355	1	70	0.181	12.670
360	1	71	0.181	12.851
365	1	72	0.181	13.032
370	1	73	0.181	13.213
375	1	74	0.181	13.394
380	1	75	0.181	13.575
385	1	76	0.181	13.756
390	1	77	0.181	13.937
395	1	78	0.181	14.118
400	1	79	0.181	14.299
405	1	80	0.181	14.480
410	1	81	0.181	14.661
415	1	82	0.181	14.842
420	1	83	0.181	15.023
425	1	84	0.181	15.204
430	1	85	0.181	15.385
435	1	86	0.181	15.566
440	1	87	0.181	15.747
445	1	88	0.181	15.928
450	1	89	0.181	16.109
455	1	90	0.181	16.290
460	1	91	0.181	16.471
465	1	92	0.181	16.652
470	1	93	0.181	16.833
475	1	94	0.181	17.014
480	1	95	0.181	17.195
485	1	96	0.181	17.376
490	1	97	0.181	17.557
495	1	98	0.181	17.738
500	1	99	0.181	17.919
505	1	100	0.181	18.100
510	1	101	0.181	18.281
515	1	102	0.181	18.462
520	1	103	0.181	18.643
525	1	104	0.181	18.824
530	1	105	0.181	19.005
535	1	106	0.181	19.186
540	1	107	0.181	19.367
545	1	108	0.181	19.548
550	1	109	0.181	19.729
555	1	110	0.181	19.910
560	1	111	0.181	20.091
565	1	112	0.181	20.272
570	1	113	0.181	20.453
575	1	114	0.181	20.634
580	1	115	0.181	20.815
585	1	116	0.181	20.996
590	1	117	0.181	21.177
595	1	118	0.181	21.358
600	1	119	0.181	21.539
605	1	120	0.181	21.720
610	1	121	0.181	21.901
615	1	122	0.181	22.082
620	1	123	0.181	22.263
625	1	124	0.181	22.444
630	1	125	0.181	22.625
635	1	126	0.181	22.806
640	1	127	0.181	22.987
645	1	128	0.181	23.168
650	1	129	0.181	23.349
655	1	130	0.181	23.530
660	1	131	0.181	23.711
665	1	132	0.181	23.892
670	1	133	0.181	24.073
675	1	134	0.181	24.254
680	1	135	0.181	24.435
685	1	136	0.181	24.616
690	1	137	0.181	24.797
695	1	138	0.181	24.978
700	1	139	0.181	25.159
705	1	140	0.181	25.340
710	1	141	0.181	25.521
715	1	142	0.181	25.702
720	1	143	0.181	25.883
725	1	144	0.181	26.064
730	1	145	0.181	26.245
735	1	146	0.181	26.426
740	1	147	0.181	26.607
745	1	148	0.181	26.788
750	1	149	0.181	26.969
755	1	150	0.181	27.150
760	1	151	0.181	27.331
765	1	152	0.181	27.512
770	1	153	0.181	27.693
775	1	154	0.181	27.874
780	1	155	0.181	28.055
785	1	156	0.181	28.236
790	1	157	0.181	28.417
795	1	158	0.181	28.598
800	1	159	0.181	28.779
805	1	160	0.181	28.960
810	1	161	0.181	29.141
815	1	162	0.181	29.322
820	1	163	0.181	29.503
825	1	164	0.181	29.684
830	1	165	0.181	29.865
835	1	166	0.181	30.046
840	1	167	0.181	30.227
845	1	168	0.181	30.408
850	1	169	0.181	30.589
855	1	170	0.181	30.770
860	1	171	0.181	30.951
865	1	172	0.181	31.132
870	1	173	0.181	31.313
875	1	174	0.181	31.494
880	1	175	0.181	31.675
885	1	176	0.181	31.856
890	1	177	0.181	32.037
895	1	178	0.181	32.218
900	1	179	0.181	32.399
905	1	180	0.181	32.580
910	1	181	0.181	32.761
915	1	182	0.181	32.942
920	1	183	0.181	33.123
925	1	184	0.181	33.304
930	1	185	0.181	33.485
935	1	186	0.181	33.666
940	1	187	0.181	33.847
945	1	188	0.181	34.028
950	1	189	0.181	34.209
955	1	190	0.181	34.390
960	1	191	0.181	34.571
965	1	192	0.181	34.752
970	1	193	0.181	34.933
975	1	194	0.181	35.114
980	1	195	0.181	35.295
985	1	196	0.181	35.476
990	1	197	0.181	35.657
995	1	198	0.181	35.838
1000	1	199	0.181	36.019
1005	1	200	0.181	36.200
1010	1	201	0.181	36.381
1015	1	202	0.181	36.562
1020	1	203	0.181	36.743
1025	1	204	0.181	36.924
1030	1	205	0.181	37.105
1035	1	206	0.181	37.286
1040	1	207	0.181	37.467
1045	1	208	0.181	37.648
1050	1	209	0.181	37.829
1055	1	210	0.181	38.010
1060	1	211	0.181	38.191
1065	1	212	0.181	38.372
1070	1	213	0.181	38.553
1075	1	214	0.181	38.734
1080	1	215	0.181	38.915
1085	1	216	0.181	39.096
1090	1	217	0.181	39.277
1095	1	218	0.181	39.458
1100	1	219	0.181	39.639
1105	1	220	0.181	39.820
1110	1	221	0.181	39.999
1115	1	222	0.181	40.179
1120	1	223	0.181	40.359
1125	1	224	0.181	40.539
1130	1	225	0.181	40.719
1135	1	226	0.181	40.899
1140	1	227	0.181	41.079
1145	1	228	0.181	41.259
1150	1	229	0.181	41.439
1155	1	230	0.181	41.619
1160	1	231	0.181	41.799
1165	1	232	0.181	41.979
1170	1	233	0.181	42.159
1175	1	234	0.181	42.339
1180	1	235	0.181	42.519
1185	1	236	0.181	42.699
1190	1	237	0.181	42.879
1195	1	238	0.181	43.059
1200	1	239	0.181	43.239
1205	1	240	0.181	43.419
1210	1	241	0.181	43.599
1215	1	242	0.181	43.779
1220	1	243	0.181	43.959
1225	1	244	0.181	44.139
1230	1	245	0.181	44.319
1235	1	246	0.181	44.499
1240	1	247	0.181	44.679
1245	1	248	0.181	44.859
1250	1	249	0.181	45.039
1255	1	250	0.181	45.219
1260	1	251	0.181	45.399
1265	1	252	0.181	45.579
1270	1	253	0.181	45.759
1275	1	254	0.181	45.939
1280	1	255	0.181	46.119
1285	1	256	0.181	46.299
1290	1	257	0.181	

STATISTICAL ANALYSIS SYSTEM  
WK=13

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
15	1	1	0.181	0.181
20	2	3	0.362	0.543
25	16	19	2.883	3.426
30	24	43	4.702	8.128
35	48	91	9.042	17.170
40	68	159	12.277	29.447
45	65	224	11.734	41.181
50	47	271	7.334	48.515
55	80	351	14.467	62.982
60	44	395	9.384	72.366
65	53	448	9.403	81.769
70	21	469	4.146	85.915
75	4	473	0.846	86.761
80	0	473	1.000	100.000

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
5	1	1	0.181	0.181
10	1	2	0.181	0.362
15	4	6	1.627	1.989
20	3	9	6.491	8.480
25	13	22	10.307	18.787
30	43	65	24.051	42.838
35	33	98	16.817	59.655
40	41	139	15.352	75.007
45	26	165	11.935	86.942
50	19	184	6.510	93.452
55	23	207	4.159	97.611
60	3	210	1.447	99.058
65	3	213	0.542	100.000

STATISTICAL ANALYSIS SYSTEM  
WK=14

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
25	5	5	0.904	0.904
30	12	17	2.170	3.074
35	30	47	5.425	8.499
40	48	95	8.600	17.179
45	78	173	14.105	31.284
50	83	256	15.009	46.293
55	69	325	12.477	58.770
60	56	381	10.127	68.897
65	70	451	12.658	81.555
70	55	506	9.946	91.501
75	38	544	6.872	98.373
80	9	553	1.627	100.000

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
5	1	1	0.181	0.181
10	2	3	0.362	0.543
15	2	5	0.362	0.905
20	3	8	0.543	1.266
25	4	12	0.724	1.990
30	15	27	2.711	4.701
35	9	36	1.627	6.328
40	19	55	3.426	9.754
45	22	77	3.945	13.699
50	20	97	3.619	17.318
55	27	124	4.884	22.202
60	10	134	1.811	24.013
65	4	138	0.724	24.737

TABLE 3. (CONT.)

STATISTICAL ANALYSIS SYSTEM

WK=15

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
30	8	8	1.447	1.447
35	16	24	2.893	4.340
40	41	65	7.414	11.754
45	74	141	13.743	25.497
50	84	225	15.190	40.687
55	87	312	15.733	56.420
60	78	390	14.103	70.524
65	66	456	11.935	82.459
70	47	503	8.499	90.958
75	39	542	7.052	98.011
80	7	549	1.266	99.277
85	4	553	0.723	100.000

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
15	8	8	1.447	1.447
20	35	44	6.310	7.957
25	82	126	14.626	22.583
30	105	231	19.168	41.751
35	105	336	19.168	60.919
40	88	424	15.913	76.832
45	67	491	11.116	87.948
50	49	540	8.661	96.609
55	7	547	1.266	97.875
60	4	551	0.723	98.598

STATISTICAL ANALYSIS SYSTEM

WK=16

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
30	1	1	0.181	0.181
35	1	2	0.181	0.362
40	26	28	4.360	4.722
45	26	54	4.360	9.082
50	67	121	10.322	20.404
55	21	142	3.333	23.737
60	86	228	15.733	39.470
65	39	267	6.845	46.315
70	71	338	13.000	59.315
75	21	359	3.845	63.160
80	21	380	3.845	67.005
85	1	381	0.181	67.186

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
20	18	18	3.255	3.255
25	48	66	11.600	14.855
30	78	144	14.103	28.958
35	103	247	19.526	48.484
40	98	345	17.722	66.206
45	103	448	19.526	85.732
50	65	513	11.734	97.466
55	31	544	5.606	103.072
60	7	551	1.266	104.338
65	2	553	0.362	104.700

TABLE 3. (CONT.)

S T A T I S T I C A L   A N A L Y S I S   S Y S T E M  
WK=17

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
30	1	1	0.161	0.161
35	3	4	0.542	0.723
40	25	29	4.521	5.244
45	21	50	3.797	9.042
50	59	109	10.669	19.711
55	83	192	15.009	34.720
60	80	272	14.467	49.186
65	92	364	16.637	65.823
70	76	440	13.743	79.566
75	77	517	13.924	93.490
80	33	550	5.967	99.458
85	3	553	0.542	100.000

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
20	4	4	0.723	0.723
25	16	20	2.893	3.617
30	70	90	12.658	16.275
35	115	205	20.796	37.071
40	108	313	19.530	56.600
45	106	419	19.168	75.769
50	74	493	13.382	89.150
55	47	540	8.499	97.649
60	13	553	2.351	100.000

S T A T I S T I C A L   A N A L Y S I S   S Y S T E M  
WK=18

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
35	2	2	0.362	0.362
40	9	11	1.627	1.989
45	29	40	5.244	7.233
50	50	90	9.042	16.275
55	74	164	13.382	29.656
60	67	231	12.116	41.772
65	91	322	16.456	58.228
70	89	411	16.094	74.322
75	81	492	14.647	88.969
80	52	544	9.403	98.373
85	9	553	1.627	100.000

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
20	3	3	0.542	0.542
25	12	15	2.170	2.712
30	50	65	9.042	11.754
35	86	151	15.352	27.106
40	113	266	20.796	48.101
45	102	368	18.445	66.546
50	91	459	16.456	83.002
55	67	526	12.116	95.118
60	27	553	4.882	100.000

TABLE 3. (CONT.)

S T A T I S T I C A L   A N A L Y S I S   S Y S T E M  
WK=19

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
40	4	4	0.723	0.723
45	18	22	3.255	3.978
50	26	48	4.702	8.680
55	67	115	12.114	20.796
60	104	219	18.807	39.602
65	111	330	20.072	59.675
70	96	426	17.340	77.014
75	70	496	12.438	89.453
80	50	546	9.462	98.914
85	7	553	1.266	100.000

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
25	7	7	1.266	1.266
30	27	34	6.148	7.414
35	86	120	15.352	22.766
40	116	236	20.976	43.742
45	120	356	21.700	65.442
50	116	472	20.976	86.418
55	56	528	10.127	96.545
60	22	550	3.978	100.523
65	3	553	0.542	101.065

S T A T I S T I C A L   A N A L Y S I S   S Y S T E M  
WK=20

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
40	5	5	0.904	0.904
45	2	7	0.362	1.266
50	31	38	5.606	6.872
55	50	88	9.042	15.914
60	74	162	13.352	29.266
65	82	244	14.628	43.894
70	100	344	18.083	61.977
75	115	459	20.796	82.773
80	80	539	16.467	99.240
85	14	553	2.532	100.000

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
30	11	11	1.989	1.989
35	44	55	7.957	9.946
40	119	174	21.519	31.465
45	117	291	21.157	52.622
50	115	406	20.796	73.418
55	96	502	17.360	90.778
60	48	550	8.680	99.458
65	3	553	0.542	100.000

TABLE 3. (CONT.)

S T A T I S T I C A L     A N A L Y S I S     S Y S T E M  
W K = 2 1

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
50	9	9	1.627	1.627
55	26	35	4.702	6.329
60	54	89	9.765	16.094
65	101	190	18.264	34.358
70	122	312	22.061	56.420
75	116	428	20.976	77.396
80	96	526	17.722	95.118
85	27	553	4.882	100.000

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
25	1	1	0.181	0.181
30	6	7	1.085	1.266
35	30	37	5.425	6.691
40	51	88	9.222	15.913
45	104	192	18.807	34.720
50	127	319	22.966	57.685
55	133	452	24.051	81.736
60	89	541	16.094	97.830
65	12	553	2.170	100.000

S T A T I S T I C A L     A N A L Y S I S     S Y S T E M  
W K = 2 2

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
45	2	2	0.362	0.362
50	5	7	0.904	1.266
55	14	21	2.532	3.797
60	45	66	8.137	11.935
65	93	159	16.817	28.752
70	130	289	23.508	52.260
75	112	401	20.153	72.414
80	115	517	20.976	93.400
85	29	546	5.244	98.644
90	3	551	0.540	99.184
95	2	553	0.362	100.000

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
30	1	1	0.181	0.181
35	10	11	1.908	2.089
40	36	47	8.148	10.237
45	116	163	28.976	39.214
50	114	277	20.615	59.829
55	153	430	27.667	87.496
60	102	532	18.445	105.941
65	22	554	3.978	109.919
70	1	555	0.181	110.100

S T A T I S T I C A L     A N A L Y S I S     S Y S T E M  
W K = 2 3

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
50	5	5	0.904	0.904
55	5	10	0.904	1.808
60	29	39	5.244	7.052
65	59	98	10.669	17.722
70	112	210	20.253	37.975
75	156	366	24.593	62.568
80	121	487	21.581	84.149
85	68	555	12.297	96.446
90	16	571	2.893	99.339
95	2	573	0.362	100.000

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
35	2	2	0.362	0.362
40	21	23	3.797	4.159
45	49	72	12.477	16.637
50	106	178	19.168	35.805
55	167	345	30.199	65.004
60	126	471	22.785	87.789
65	58	529	10.488	98.277
70	4	553	0.723	100.000

TABLE 3. (CONT.)

STATISTICAL ANALYSIS SYSTEM  
WK=24

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
55	7	7	1.266	1.266
60	19	26	4.536	5.802
65	47	73	12.849	18.651
70	88	161	28.813	47.464
75	142	303	53.178	100.642
80	129	432	77.377	178.019
85	98	530	94.562	272.581
90	18	548	3.255	285.836
95	5	553	0.904	290.740

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
35	3	3	0.542	0.542
40	15	18	2.351	2.893
45	51	69	9.222	12.116
50	102	169	18.445	30.561
55	161	310	25.497	56.058
60	167	477	50.199	106.257
65	69	546	12.477	118.734
70	7	553	1.266	120.000

STATISTICAL ANALYSIS SYSTEM  
WK=25

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
55	2	2	0.362	0.362
60	8	10	1.447	1.808
65	34	44	6.148	7.957
70	84	128	15.190	23.146
75	121	249	21.881	45.027
80	163	412	29.476	74.503
85	101	513	18.264	92.767
90	32	545	5.787	98.553
95	7	552	1.266	99.819
100	1	553	0.181	100.000

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
35	1	1	0.181	0.181
40	4	5	0.723	0.904
45	27	32	4.882	5.787
50	92	124	16.637	22.473
55	127	251	22.966	45.439
60	194	445	35.081	80.520
65	153	598	27.179	107.699
70	13	611	2.551	110.250

STATISTICAL ANALYSIS SYSTEM  
WK=26

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
55	1	1	0.181	0.181
60	7	8	1.266	1.447
65	19	27	3.436	4.882
70	56	83	10.127	15.009
75	121	204	21.881	36.890
80	146	350	26.401	63.291
85	127	477	22.966	86.257
90	52	529	9.603	95.860
95	24	553	4.340	100.000

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
40	1	1	0.181	0.181
45	17	18	3.074	3.255
50	77	95	15.924	19.179
55	107	202	19.349	38.528
60	194	396	35.081	73.609
65	119	515	21.519	95.128
70	37	552	6.891	102.019
75	1	553	0.181	102.200

TABLE 3. (CONT.)

STATISTICAL ANALYSIS SYSTEM

WK=27

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
55	1	1	0.181	0.181
60	1	2	0.181	0.362
65	1	3	0.181	0.543
70	4	7	0.723	1.265
75	10	17	1.763	3.028
80	104	121	18.087	11.116
85	129	250	23.327	34.443
90	177	427	32.007	66.450
95	32	459	4.403	70.853
100	21	531	3.797	74.650
105	2	553	0.362	75.012

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
40	2	2	0.362	0.362
45	1	3	0.181	0.543
50	5	8	0.904	1.447
55	10	18	1.808	3.255
60	100	118	18.087	21.342
65	169	287	25.136	46.478
70	144	431	26.040	72.518
75	58	553	10.488	83.006
80	2	555	0.362	83.368

STATISTICAL ANALYSIS SYSTEM

WK=28

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
55	1	1	0.181	0.181
60	1	2	0.181	0.362
65	4	6	0.723	1.085
70	4	10	1.447	2.532
75	10	20	3.614	6.146
80	101	121	18.087	24.260
85	159	280	28.752	53.012
90	157	437	28.391	81.403
95	52	489	9.403	90.806
100	26	515	4.702	95.508
105	3	553	0.542	96.050

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
40	1	1	0.181	0.181
45	1	2	0.181	0.362
50	10	12	1.808	2.164
55	50	62	9.042	11.206
60	107	169	19.349	30.555
65	202	371	34.720	65.275
70	139	510	25.136	90.411
75	53	563	9.584	99.995
80	1	564	0.181	100.176

STATISTICAL ANALYSIS SYSTEM

WK=29

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
40	2	2	0.362	0.362
45	7	9	1.266	1.628
50	32	41	5.787	7.414
55	45	86	7.979	15.393
60	151	237	17.179	32.572
65	171	408	19.306	51.878
70	171	579	20.922	72.800
75	63	642	11.754	84.554
80	17	659	3.074	87.628
85	9	668	1.627	89.255
90	4	672	0.723	90.978

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
45	5	5	0.904	0.904
50	34	39	6.146	7.050
55	114	153	20.615	27.665
60	184	337	33.273	60.938
65	175	512	31.646	92.584
70	33	545	5.967	98.551
75	8	553	1.447	100.000

TABLE 3. (CONT.)

STATISTICAL ANALYSIS SYSTEM

WK=30

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
60	1	1	0.161	0.161
65	5	6	0.904	1.065
70	25	31	4.521	5.606
75	89	120	16.094	21.700
80	145	245	26.221	47.920
85	155	420	28.029	75.949
90	99	519	17.902	93.852
95	23	542	4.158	98.011
100	7	549	1.266	99.277
105	4	553	0.723	100.000

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
45	10	10	1.808	1.808
50	10	20	3.616	5.424
55	15	35	5.424	10.848
60	15	50	5.424	16.272
65	17	67	6.304	22.576
70	22	89	8.432	31.008
75	2	91	0.362	31.370
90	1	92	0.181	31.551

STATISTICAL ANALYSIS SYSTEM

WK=31

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
60	2	2	0.362	0.362
65	11	13	1.909	2.271
70	9	22	1.705	3.976
75	91	113	16.436	20.412
80	143	256	25.659	46.071
85	147	403	26.552	72.623
90	52	455	15.732	88.355
95	31	486	5.606	93.961
100	2	488	0.362	94.323

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
45	8	8	1.447	1.447
50	5	13	4.403	5.850
55	13	26	23.508	29.358
60	16	42	23.933	53.291
65	15	57	27.486	80.777
70	4	61	6.499	87.276
75	4	65	0.723	88.000

STATISTICAL ANALYSIS SYSTEM

WK=32

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
65	14	14	2.532	2.532
70	52	66	9.403	11.935
75	111	177	20.072	32.007
80	143	322	26.221	58.228
85	130	452	23.508	81.736
90	20	472	12.297	94.033
95	24	496	4.340	98.373
100	7	503	1.266	99.639
105	2	505	0.362	100.000

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
45	17	17	3.074	3.074
50	4	21	7.559	10.633
55	11	32	21.517	32.150
60	19	51	35.624	67.774
65	13	64	23.689	91.463
70	4	68	6.137	97.600
75	2	70	0.362	97.962

TABLE 3. (CONT.)

STATISTICAL ANALYSIS SYSTEM  
WK=33

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
60	3	3	0.542	0.542
65	16	19	2.893	3.436
70	32	51	5.787	9.223
75	133	184	24.051	33.273
80	146	330	26.401	59.675
85	129	459	23.327	83.002
90	77	536	13.924	96.926
95	13	549	2.351	99.277
100	4	553	0.723	100.000

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
40	1	1	0.181	0.181
45	11	12	1.989	2.170
50	37	49	6.691	8.861
55	127	176	22.966	31.827
60	196	372	33.443	65.270
65	184	556	27.308	92.578
70	24	580	3.440	96.018
75	3	583	0.542	100.000

STATISTICAL ANALYSIS SYSTEM  
WK=34

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
35	1	1	0.181	0.181
40	9	10	1.808	1.989
45	25	35	5.227	7.216
50	26	61	10.981	18.197
55	122	183	20.742	38.939
60	118	301	22.051	60.990
65	123	424	21.558	82.548
70	62	486	22.242	104.790
75	42	528	11.212	116.002
80	16	544	2.893	118.895
85	1	545	0.181	119.076

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
40	10	10	1.808	1.808
45	32	42	5.787	7.595
50	99	141	17.902	25.497
55	166	207	26.401	51.898
60	134	341	24.231	76.129
65	107	448	19.349	95.479
70	21	469	3.797	99.277
75	3	472	0.542	99.819
80	1	473	0.181	100.000

STATISTICAL ANALYSIS SYSTEM  
WK=35

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
55	5	5	0.904	0.904
60	12	17	2.170	3.074
65	35	50	5.867	8.941
70	70	120	12.658	21.599
75	91	211	14.456	36.055
80	131	342	22.489	58.544
85	149	491	24.944	83.488
90	49	540	8.841	92.329
95	13	553	2.351	100.000

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
35	1	1	0.181	0.181
40	1	2	0.362	0.543
45	4	6	1.090	1.633
50	11	17	3.247	4.880
55	17	34	5.867	10.747
60	40	74	13.557	24.304
65	130	204	23.508	47.812
70	92	296	16.637	64.449
75	21	317	3.797	68.246
80	2	319	0.362	100.000

TABLE 3. (CONT.)

STATISTICAL ANALYSIS SYSTEM  
WK=36

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
55	4	4	0.723	0.723
60	19	23	3.436	4.159
65	53	76	9.584	13.743
70	93	169	16.817	30.561
75	110	279	19.892	50.452
80	108	387	19.530	69.982
85	101	488	18.264	88.246
90	51	539	9.222	97.468
95	14	553	2.532	100.000

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
35	5	5	0.904	0.904
40	18	23	2.255	4.159
45	68	91	12.777	16.917
50	94	185	17.098	34.015
55	119	304	22.519	56.534
60	133	437	25.067	81.601
65	87	524	15.732	97.333
70	8	553	1.447	100.000

STATISTICAL ANALYSIS SYSTEM  
WK=37

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
45	1	1	0.181	0.181
50	3	4	0.542	0.723
55	20	24	3.617	4.340
60	48	72	8.680	13.020
65	66	138	11.938	24.958
70	106	244	18.626	43.584
75	113	357	20.458	64.042
80	103	460	18.426	82.468
85	72	532	10.990	93.458
90	21	553	3.797	97.255
95	3	553	0.542	100.000

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
25	1	1	0.181	0.181
30	3	4	0.542	0.723
35	1	5	0.255	0.978
40	48	53	8.680	9.658
45	99	152	17.902	27.560
50	110	262	19.892	47.452
55	126	388	22.785	70.237
60	87	475	15.732	85.969
65	52	527	9.403	95.372
70	9	553	1.627	100.000

STATISTICAL ANALYSIS SYSTEM  
WK=38

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
45	3	3	0.542	0.542
50	5	8	0.904	1.447
55	39	47	7.052	8.499
60	46	93	8.318	16.817
65	95	188	17.179	33.996
70	93	281	16.817	50.814
75	105	386	18.967	69.301
80	90	476	16.275	85.576
85	67	543	12.116	97.692
90	10	553	1.808	100.000

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
25	1	1	0.181	0.181
30	9	10	1.447	1.627
35	42	52	7.457	9.084
40	1	53	0.255	9.339
45	57	110	10.307	19.646
50	108	218	19.530	39.176
55	103	321	18.626	57.802
60	108	429	17.530	75.332
65	25	454	4.338	79.670
70	3	553	0.542	100.000

TABLE 3. (CONT.)

STATISTICAL ANALYSIS SYSTEM  
WK=39

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
40	4	4	0.723	0.723
45	4	8	0.723	1.447
50	21	29	3.797	5.244
55	53	82	9.584	14.828
60	89	171	16.094	30.922
65	96	267	17.360	48.282
70	101	368	18.264	66.546
75	99	467	17.902	84.448
80	59	526	10.669	95.118
85	25	551	4.352	99.470
90	2	553	0.362	100.000

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
25	5	5	0.904	0.904
30	22	27	5.078	4.682
35	74	101	13.382	18.264
40	93	194	16.817	35.081
45	124	318	22.423	57.505
50	112	430	20.253	77.758
55	58	488	10.488	88.246
60	49	537	8.861	97.107
65	16	553	2.893	100.000

STATISTICAL ANALYSIS SYSTEM  
WK=40

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
40	2	2	0.362	0.362
45	6	10	1.447	1.808
50	21	31	3.797	5.606
55	53	84	9.584	15.190
60	82	166	14.828	30.018
65	115	281	20.796	50.814
70	97	378	17.541	68.354
75	93	471	16.817	85.172
80	63	534	11.392	96.564
85	18	552	3.253	99.819
90	1	553	0.181	100.000

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
25	14	14	2.532	2.532
30	28	42	5.063	7.595
35	70	112	12.658	20.253
40	104	216	18.807	39.060
45	123	341	22.604	61.664
50	95	436	17.179	78.843
55	84	520	15.190	94.033
60	30	550	5.425	99.458
65	3	553	0.542	100.000

STATISTICAL ANALYSIS SYSTEM  
WK=41

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
35	1	1	0.181	0.181
40	7	8	1.447	1.628
45	19	27	3.797	5.425
50	49	76	8.861	14.286
55	74	150	13.382	27.668
60	82	232	14.828	42.496
65	95	327	17.179	59.675
70	111	438	20.072	79.747
75	75	513	13.382	93.129
80	38	551	6.327	99.456
85	2	553	0.362	100.000

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
15	1	1	0.181	0.181
20	14	15	2.532	2.713
25	29	44	5.063	7.776
30	54	98	9.765	17.541
35	94	192	16.998	34.539
40	113	305	20.434	55.073
45	99	404	17.902	72.975
50	85	489	15.371	88.346
55	47	536	8.499	96.845
60	17	553	3.074	100.000

TABLE 3. (CONT.)

STATISTICAL ANALYSIS SYSTEM

WK=42

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
30	1	1	0.181	0.181
35	8	9	1.647	1.828
40	24	33	6.027	7.855
45	23	56	10.509	18.364
50	51	107	19.512	37.876
55	45	152	8.539	46.415
60	77	229	14.522	60.937
65	110	339	21.549	82.486
70	93	432	17.259	99.745
75	66	498	12.362	112.107
80	21	553	3.953	100.000

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
15	1	1	0.181	0.181
20	15	16	2.712	2.893
25	43	59	7.776	10.669
30	73	132	13.201	23.870
35	110	242	19.892	43.761
40	104	346	18.807	62.568
45	90	436	16.275	78.843
50	74	510	13.382	92.224
55	35	545	9.929	102.153
60	8	553	1.467	100.000

STATISTICAL ANALYSIS SYSTEM

WK=43

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
25	1	1	0.181	0.181
30	6	7	1.266	1.447
35	14	21	3.855	5.302
40	38	59	10.633	15.935
45	57	117	15.732	31.667
50	71	188	19.349	51.016
55	84	272	22.432	73.448
60	87	359	21.157	94.605
65	72	431	14.846	109.451
70	52	483	9.403	118.854
75	55	538	9.946	128.800
80	12	550	2.170	130.970
85	1	553	0.181	100.000

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
15	7	7	1.266	1.266
20	24	31	4.340	5.606
25	71	102	12.833	18.439
30	117	219	21.157	39.596
35	99	317	17.722	57.318
40	99	416	17.902	75.220
45	73	489	13.201	88.421
50	33	522	5.967	94.388
55	27	549	4.882	99.270
60	4	553	0.723	100.000

STATISTICAL ANALYSIS SYSTEM

WK=44

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
20	2	2	0.362	0.362
25	3	5	0.542	0.904
30	8	13	1.447	2.351
35	37	50	6.691	9.042
40	67	117	12.116	21.157
45	57	174	10.307	31.465
50	69	243	12.477	43.942
55	82	325	14.828	58.770
60	75	400	13.562	72.333
65	72	472	13.020	85.353
70	48	520	8.680	94.033
75	30	550	5.425	99.458
80	3	553	0.542	100.000

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
5	1	1	0.181	0.181
10	5	6	0.904	1.085
15	20	26	3.617	4.702
20	40	66	7.233	11.935
25	96	162	17.360	29.295
30	93	255	16.817	46.112
35	108	363	19.530	65.642
40	74	437	15.382	81.024
45	56	493	10.127	91.151
50	42	535	7.795	98.946
55	13	548	2.351	101.297
60	5	553	0.904	100.000

TABLE 3. (CONT.)

STATISTICAL ANALYSIS SYSTEM  
WK=45

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
25	13	13	2.351	2.351
30	16	29	2.895	5.246
35	22	51	3.793	9.039
40	22	73	3.793	12.832
45	33	106	5.586	18.418
50	33	139	5.586	23.994
55	22	161	3.793	27.787
60	22	183	3.793	31.580
65	22	205	3.793	35.373
70	30	235	5.586	40.959
75	15	250	2.793	43.752
		553	100.000	100.000

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
5	2	2	0.362	0.362
10	11	13	1.989	2.351
15	30	43	5.586	7.937
20	77	120	13.924	21.861
25	101	221	18.264	39.925
30	118	339	21.353	61.278
35	64	403	11.572	72.850
40	68	471	12.297	85.147
45	50	521	9.040	94.187
50	25	546	4.521	98.708
55	7	553	1.266	100.000

STATISTICAL ANALYSIS SYSTEM  
WK=46

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
10	1	1	0.181	0.181
15	2	3	0.362	0.543
20	10	13	1.808	2.351
25	22	35	3.978	6.329
30	39	74	7.052	13.381
35	62	136	11.212	24.593
40	76	212	13.743	38.336
45	63	275	11.392	49.728
50	67	342	12.116	61.844
55	70	412	12.839	74.683
60	61	473	11.212	85.895
65	45	518	8.317	94.212
70	33	551	6.148	100.000
75	2	553	0.362	100.000

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
-5	1	1	0.181	0.181
0	5	6	0.904	1.085
5	9	15	1.627	2.712
10	33	48	5.924	8.636
15	46	94	8.317	16.953
20	76	170	13.549	30.502
25	94	264	16.819	47.321
30	103	367	18.626	65.947
35	82	449	14.828	80.775
40	43	492	7.776	88.551
45	29	521	5.244	93.795
50	20	541	3.617	97.412
55	10	551	1.808	99.220
		553	100.000	100.000

STATISTICAL ANALYSIS SYSTEM  
WK=47

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
5	1	1	0.181	0.181
10	5	6	0.904	1.085
15	10	16	1.808	2.893
20	26	42	4.702	7.595
25	66	108	11.933	19.528
30	57	165	10.507	30.035
35	78	243	14.105	44.140
40	90	333	16.275	60.415
45	71	404	12.839	73.254
50	65	469	11.754	85.008
55	49	518	8.861	93.869
60	27	545	4.822	98.691
65	7	552	1.266	100.000
70	1	553	0.181	100.000

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
-5	2	2	0.362	0.362
0	4	6	0.723	1.085
5	13	19	2.351	3.436
10	17	36	3.074	6.510
15	61	97	11.031	17.541
20	114	211	20.615	38.156
25	162	373	25.678	63.834
30	103	476	18.626	82.460
35	54	530	9.745	92.205
40	20	550	3.617	95.822
45	10	560	1.808	97.630
50	4	564	0.723	98.353
55	9	573	1.627	100.000

TABLE 3. (CONT.)

S T A T I S T I C A L     A N A L Y S I S     S Y S T E M  
WK=48

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
10	4	4	0.723	0.723
11	6	10	1.085	1.808
12	24	34	4.740	6.548
13	45	79	8.137	14.685
14	47	126	12.116	26.801
15	96	222	17.360	44.161
16	107	329	15.732	59.894
17	70	399	12.458	72.352
18	33	432	10.669	83.021
19	20	452	8.841	91.862
20	14	466	6.425	98.287
21	2	468	0.425	98.712
22	2	470	0.425	99.137
23	2	472	0.425	99.562
24	2	474	0.425	99.987
25	2	476	0.425	100.000

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
10	1	1	0.181	0.181
11	1	2	0.181	0.362
12	1	3	0.181	0.543
13	1	4	0.181	0.724
14	1	5	0.181	0.905
15	1	6	0.181	1.086
16	1	7	0.181	1.267
17	1	8	0.181	1.448
18	1	9	0.181	1.629
19	1	10	0.181	1.810
20	1	11	0.181	1.991
21	1	12	0.181	2.172
22	1	13	0.181	2.353
23	1	14	0.181	2.534
24	1	15	0.181	2.715
25	1	16	0.181	2.896
26	1	17	0.181	3.077
27	1	18	0.181	3.258
28	1	19	0.181	3.439
29	1	20	0.181	3.620
30	1	21	0.181	3.801
31	1	22	0.181	3.982
32	1	23	0.181	4.163
33	1	24	0.181	4.344
34	1	25	0.181	4.525
35	1	26	0.181	4.706
36	1	27	0.181	4.887
37	1	28	0.181	5.068
38	1	29	0.181	5.249
39	1	30	0.181	5.430
40	1	31	0.181	5.611
41	1	32	0.181	5.792
42	1	33	0.181	5.973
43	1	34	0.181	6.154
44	1	35	0.181	6.335
45	1	36	0.181	6.516
46	1	37	0.181	6.697
47	1	38	0.181	6.878
48	1	39	0.181	7.059
49	1	40	0.181	7.240
50	1	41	0.181	7.421
51	1	42	0.181	7.602
52	1	43	0.181	7.783
53	1	44	0.181	7.964
54	1	45	0.181	8.145
55	1	46	0.181	8.326
56	1	47	0.181	8.507
57	1	48	0.181	8.688
58	1	49	0.181	8.869
59	1	50	0.181	9.050
60	1	51	0.181	9.231
61	1	52	0.181	9.412
62	1	53	0.181	9.593
63	1	54	0.181	9.774
64	1	55	0.181	9.955
65	1	56	0.181	10.136
66	1	57	0.181	10.317
67	1	58	0.181	10.498
68	1	59	0.181	10.679
69	1	60	0.181	10.860
70	1	61	0.181	11.041
71	1	62	0.181	11.222
72	1	63	0.181	11.403
73	1	64	0.181	11.584
74	1	65	0.181	11.765
75	1	66	0.181	11.946
76	1	67	0.181	12.127
77	1	68	0.181	12.308
78	1	69	0.181	12.489
79	1	70	0.181	12.670
80	1	71	0.181	12.851
81	1	72	0.181	13.032
82	1	73	0.181	13.213
83	1	74	0.181	13.394
84	1	75	0.181	13.575
85	1	76	0.181	13.756
86	1	77	0.181	13.937
87	1	78	0.181	14.118
88	1	79	0.181	14.299
89	1	80	0.181	14.480
90	1	81	0.181	14.661
91	1	82	0.181	14.842
92	1	83	0.181	15.023
93	1	84	0.181	15.204
94	1	85	0.181	15.385
95	1	86	0.181	15.566
96	1	87	0.181	15.747
97	1	88	0.181	15.928
98	1	89	0.181	16.109
99	1	90	0.181	16.290
100	1	91	0.181	16.471
101	1	92	0.181	16.652
102	1	93	0.181	16.833
103	1	94	0.181	17.014
104	1	95	0.181	17.195
105	1	96	0.181	17.376
106	1	97	0.181	17.557
107	1	98	0.181	17.738
108	1	99	0.181	17.919
109	1	100	0.181	18.100
110	1	101	0.181	18.281
111	1	102	0.181	18.462
112	1	103	0.181	18.643
113	1	104	0.181	18.824
114	1	105	0.181	19.005
115	1	106	0.181	19.186
116	1	107	0.181	19.367
117	1	108	0.181	19.548
118	1	109	0.181	19.729
119	1	110	0.181	19.910
120	1	111	0.181	20.091
121	1	112	0.181	20.272
122	1	113	0.181	20.453
123	1	114	0.181	20.634
124	1	115	0.181	20.815
125	1	116	0.181	20.996
126	1	117	0.181	21.177
127	1	118	0.181	21.358
128	1	119	0.181	21.539
129	1	120	0.181	21.720
130	1	121	0.181	21.901
131	1	122	0.181	22.082
132	1	123	0.181	22.263
133	1	124	0.181	22.444
134	1	125	0.181	22.625
135	1	126	0.181	22.806
136	1	127	0.181	22.987
137	1	128	0.181	23.168
138	1	129	0.181	23.349
139	1	130	0.181	23.530
140	1	131	0.181	23.711
141	1	132	0.181	23.892
142	1	133	0.181	24.073
143	1	134	0.181	24.254
144	1	135	0.181	24.435
145	1	136	0.181	24.616
146	1	137	0.181	24.797
147	1	138	0.181	24.978
148	1	139	0.181	25.159
149	1	140	0.181	25.340
150	1	141	0.181	25.521
151	1	142	0.181	25.702
152	1	143	0.181	25.883
153	1	144	0.181	26.064
154	1	145	0.181	26.245
155	1	146	0.181	26.426
156	1	147	0.181	26.607
157	1	148	0.181	26.788
158	1	149	0.181	26.969
159	1	150	0.181	27.150
160	1	151	0.181	27.331
161	1	152	0.181	27.512
162	1	153	0.181	27.693
163	1	154	0.181	27.874
164	1	155	0.181	28.055
165	1	156	0.181	28.236
166	1	157	0.181	28.417
167	1	158	0.181	28.598
168	1	159	0.181	28.779
169	1	160	0.181	28.960
170	1	161	0.181	29.141
171	1	162	0.181	29.322
172	1	163	0.181	29.503
173	1	164	0.181	29.684
174	1	165	0.181	29.865
175	1	166	0.181	30.046
176	1	167	0.181	30.227
177	1	168	0.181	30.408
178	1	169	0.181	30.589
179	1	170	0.181	30.770
180	1	171	0.181	30.951
181	1	172	0.181	31.132
182	1	173	0.181	31.313
183	1	174	0.181	31.494
184	1	175	0.181	31.675
185	1	176	0.181	31.856
186	1	177	0.181	32.037
187	1	178	0.181	32.218
188	1	179	0.181	32.399
189	1	180	0.181	32.580
190	1	181	0.181	32.761
191	1	182	0.181	32.942
192	1	183	0.181	33.123
193	1	184	0.181	33.304
194	1	185	0.181	33.485
195	1	186	0.181	33.666
196	1	187	0.181	33.847
197	1	188	0.181	34.028
198	1	189	0.181	34.209
199	1	190	0.181	34.390
200	1	191	0.181	34.571
201	1	192	0.181	34.752
202	1	193	0.181	34.933
203	1	194	0.181	35.114
204	1	195	0.181	35.295
205	1	196	0.181	35.476
206	1	197	0.181	35.657
207	1	198	0.181	35.838
208	1	199	0.181	36.019
209	1	200	0.181	36.200
210	1	201	0.181	36.381
211	1	202	0.181	36.562
212	1	203	0.181	36.743
213	1	204	0.181	36.924
214	1	205	0.181	37.105
215	1	206	0.181	37.286
216	1	207	0.181	37.467
217	1	208	0.181	37.648
218	1	209	0.181	37.829
219	1	210	0.181	38.010
220	1	211	0.181	38.191
221	1	212	0.181	38.372
222	1	213	0.181	38.553
223	1	214	0.181	38.734
224	1	215	0.181	38.915
225	1	216	0.181	39.096
226	1	217	0.181	39.277
227	1	218	0.181	39.458
228	1	219	0.181	39.639
229	1	220	0.181	39.820
230	1	221	0.181	39.999
231	1	222	0.181	40.179
232	1	223	0.181	40.359
233	1	224	0.181	40.539
234	1	225	0.181	40.719
235	1	226	0.181	40.899
236	1	227	0.181	41.079
237	1	228	0.181	41.259
238	1	229	0.181	41.439
239	1	230	0.181	41.619
240	1	231	0.181	41.799
241	1	232	0.181	41.979
242	1	233	0.181	42.159
243	1	234	0.181	42.339
244	1	235	0.181	42.519
245	1	236	0.181	42.699
246	1	237	0.181	42.879
247	1	238	0.181	43.059
248	1	239	0.181	43.239
249	1	240	0.181	43.419
250	1	241	0.181	43.599
251	1	242	0.181	43.779
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STATISTICAL ANALYSIS SYSTEM  
WK=51

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.5	1	1	0.181	0.181
1.0	1	2	0.181	0.362
1.5	1	3	0.181	0.543
2.0	1	4	0.181	0.724
2.5	1	5	0.181	0.905
3.0	1	6	0.181	1.086
3.5	1	7	0.181	1.267
4.0	1	8	0.181	1.448
4.5	1	9	0.181	1.629
5.0	1	10	0.181	1.810
5.5	1	11	0.181	1.991
6.0	1	12	0.181	2.172
6.5	1	13	0.181	2.353
7.0	1	14	0.181	2.534
7.5	1	15	0.181	2.715
8.0	1	16	0.181	2.896
8.5	1	17	0.181	3.077
9.0	1	18	0.181	3.258
9.5	1	19	0.181	3.439
10.0	1	20	0.181	3.620
10.5	1	21	0.181	3.801
11.0	1	22	0.181	3.982
11.5	1	23	0.181	4.163
12.0	1	24	0.181	4.344
12.5	1	25	0.181	4.525
13.0	1	26	0.181	4.706
13.5	1	27	0.181	4.887
14.0	1	28	0.181	5.068
14.5	1	29	0.181	5.249
15.0	1	30	0.181	5.430
15.5	1	31	0.181	5.611
16.0	1	32	0.181	5.792
16.5	1	33	0.181	5.973
17.0	1	34	0.181	6.154
17.5	1	35	0.181	6.335
18.0	1	36	0.181	6.516
18.5	1	37	0.181	6.697
19.0	1	38	0.181	6.878
19.5	1	39	0.181	7.059
20.0	1	40	0.181	7.240
20.5	1	41	0.181	7.421
21.0	1	42	0.181	7.602
21.5	1	43	0.181	7.783
22.0	1	44	0.181	7.964
22.5	1	45	0.181	8.145
23.0	1	46	0.181	8.326
23.5	1	47	0.181	8.507
24.0	1	48	0.181	8.688
24.5	1	49	0.181	8.869
25.0	1	50	0.181	9.050
25.5	1	51	0.181	9.231
26.0	1	52	0.181	9.412
26.5	1	53	0.181	9.593
27.0	1	54	0.181	9.774
27.5	1	55	0.181	9.955
28.0	1	56	0.181	10.136
28.5	1	57	0.181	10.317
29.0	1	58	0.181	10.498
29.5	1	59	0.181	10.679
30.0	1	60	0.181	10.860
30.5	1	61	0.181	11.041
31.0	1	62	0.181	11.222
31.5	1	63	0.181	11.403
32.0	1	64	0.181	11.584
32.5	1	65	0.181	11.765
33.0	1	66	0.181	11.946
33.5	1	67	0.181	12.127
34.0	1	68	0.181	12.308
34.5	1	69	0.181	12.489
35.0	1	70	0.181	12.670
35.5	1	71	0.181	12.851
36.0	1	72	0.181	13.032
36.5	1	73	0.181	13.213
37.0	1	74	0.181	13.394
37.5	1	75	0.181	13.575
38.0	1	76	0.181	13.756
38.5	1	77	0.181	13.937
39.0	1	78	0.181	14.118
39.5	1	79	0.181	14.299
40.0	1	80	0.181	14.480
40.5	1	81	0.181	14.661
41.0	1	82	0.181	14.842
41.5	1	83	0.181	15.023
42.0	1	84	0.181	15.204
42.5	1	85	0.181	15.385
43.0	1	86	0.181	15.566
43.5	1	87	0.181	15.747
44.0	1	88	0.181	15.928
44.5	1	89	0.181	16.109
45.0	1	90	0.181	16.290
45.5	1	91	0.181	16.471
46.0	1	92	0.181	16.652
46.5	1	93	0.181	16.833
47.0	1	94	0.181	17.014
47.5	1	95	0.181	17.195
48.0	1	96	0.181	17.376
48.5	1	97	0.181	17.557
49.0	1	98	0.181	17.738
49.5	1	99	0.181	17.919
50.0	1	100	0.181	18.100

MINGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.50	1	1	0.181	0.181
1.00	1	2	0.181	0.362
1.50	1	3	0.181	0.543
2.00	1	4	0.181	0.724
2.50	1	5	0.181	0.905
3.00	1	6	0.181	1.086
3.50	1	7	0.181	1.267
4.00	1	8	0.181	1.448
4.50	1	9	0.181	1.629
5.00	1	10	0.181	1.810
5.50	1	11	0.181	1.991
6.00	1	12	0.181	2.172
6.50	1	13	0.181	2.353
7.00	1	14	0.181	2.534
7.50	1	15	0.181	2.715
8.00	1	16	0.181	2.896
8.50	1	17	0.181	3.077
9.00	1	18	0.181	3.258
9.50	1	19	0.181	3.439
10.00	1	20	0.181	3.620
10.50	1	21	0.181	3.801
11.00	1	22	0.181	3.982
11.50	1	23	0.181	4.163
12.00	1	24	0.181	4.344
12.50	1	25	0.181	4.525
13.00	1	26	0.181	4.706
13.50	1	27	0.181	4.887
14.00	1	28	0.181	5.068
14.50	1	29	0.181	5.249
15.00	1	30	0.181	5.430
15.50	1	31	0.181	5.611
16.00	1	32	0.181	5.792
16.50	1	33	0.181	5.973
17.00	1	34	0.181	6.154
17.50	1	35	0.181	6.335
18.00	1	36	0.181	6.516
18.50	1	37	0.181	6.697
19.00	1	38	0.181	6.878
19.50	1	39	0.181	7.059
20.00	1	40	0.181	7.240
20.50	1	41	0.181	7.421
21.00	1	42	0.181	7.602
21.50	1	43	0.181	7.783
22.00	1	44	0.181	7.964
22.50	1	45	0.181	8.145
23.00	1	46	0.181	8.326
23.50	1	47	0.181	8.507
24.00	1	48	0.181	8.688
24.50	1	49	0.181	8.869
25.00	1	50	0.181	9.050
25.50	1	51	0.181	9.231
26.00	1	52	0.181	9.412
26.50	1	53	0.181	9.593
27.00	1	54	0.181	9.774
27.50	1	55	0.181	9.955
28.00	1	56	0.181	10.136
28.50	1	57	0.181	10.317
29.00	1	58	0.181	10.498
29.50	1	59	0.181	10.679
30.00	1	60	0.181	10.860
30.50	1	61	0.181	11.041
31.00	1	62	0.181	11.222
31.50	1	63	0.181	11.403
32.00	1	64	0.181	11.584
32.50	1	65	0.181	11.765
33.00	1	66	0.181	11.946
33.50	1	67	0.181	12.127
34.00	1	68	0.181	12.308
34.50	1	69	0.181	12.489
35.00	1	70	0.181	12.670
35.50	1	71	0.181	12.851
36.00	1	72	0.181	13.032
36.50	1	73	0.181	13.213
37.00	1	74	0.181	13.394
37.50	1	75	0.181	13.575
38.00	1	76	0.181	13.756
38.50	1	77	0.181	13.937
39.00	1	78	0.181	14.118
39.50	1	79	0.181	14.299
40.00	1	80	0.181	14.480
40.50	1	81	0.181	14.661
41.00	1	82	0.181	14.842
41.50	1	83	0.181	15.023
42.00	1	84	0.181	15.204
42.50	1	85	0.181	15.385
43.00	1	86	0.181	15.566
43.50	1	87	0.181	15.747
44.00	1	88	0.181	15.928
44.50	1	89	0.181	16.109
45.00	1	90	0.181	16.290
45.50	1	91	0.181	16.471
46.00	1	92	0.181	16.652
46.50	1	93	0.181	16.833
47.00	1	94	0.181	17.014
47.50	1	95	0.181	17.195
48.00	1	96	0.181	17.376
48.50	1	97	0.181	17.557
49.00	1	98	0.181	17.738
49.50	1	99	0.181	17.919
50.00	1	100	0.181	18.100

STATISTICAL ANALYSIS SYSTEM  
WK=52

MAXGROUP	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.5	2	2	0.362	0.362
1.0	2	4	0.362	0.724
1.5	2	6	0.362	1.086
2.0	2	8	0.362	1.448
2.5	2	10	0.362	1.810
3.0	2	12	0.362	2.172
3.5	2	14	0.362	2.534
4.0	2	16	0.362	2.896
4.5	2	18	0.362	3.258
5.0	2	20	0.362	3.620
5.5	2	22	0.362	3.982
6.0	2	24	0.362	4.344
6.5	2	26	0.362	4.706
7.0	2	28	0.362	5.068
7.5	2	30	0.362	5.430
8.0	2	32	0.362	5.792
8.5	2	34	0.362	6.154
9.0	2	36	0.362	6.516
9.5	2	38	0.362	6.878
10.0	2	40	0.362	7.240
10.5	2	42	0.362	7.602
11.0	2	44	0.362	7.964
11.5	2	46	0.362	8.326
12.0	2	48	0.362	8.688
12.5	2	50	0.362	9.050
13.0	2	52	0.362	9.412
13.5	2	54	0.362	9.774
14.0	2	56	0.362	10.136
14.5	2	58	0.362	10.498
15.0	2	60	0.362	10.860
15.5	2	62	0.362	11.222
16.0	2	64	0.362	11.584
16.5	2	66	0.362	11.946
17.0	2	68	0.362	12.308
17.5	2	70	0.362	12.670
18.0	2	72	0.362	13.032
18.5	2	74	0.362	13.394
19.0	2	76	0.362	13.756
19.5	2	78	0.362	14.118
20.0	2	80	0.362	14.480
20.5	2	82	0.362	14.842
21.0	2	84	0.362	15.204
21.5	2	86	0.362	15.566
22.0	2	88	0.362	15.928
22.5	2	90	0.362	16.290
23.0	2	92	0.362	16.652
23.5	2	94	0.362	17.014
24.0	2	96	0.362	17.376
24.5	2	98	0.362	17.738
25.0	2	100	0.362	18.100

MINGROUP	FRE
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RANK PERCENTILE OF MAXIMUM TEMPERATURES AT COLUMBIA MO

12:38 FRIDAY, SEPTEMBER 5, 1980 <sup>59</sup>

OUTER BOUNDARY - 5 AND 95 PERCENTILE  
INNER BOUNDARY - 30 AND 70 PERCENTILE

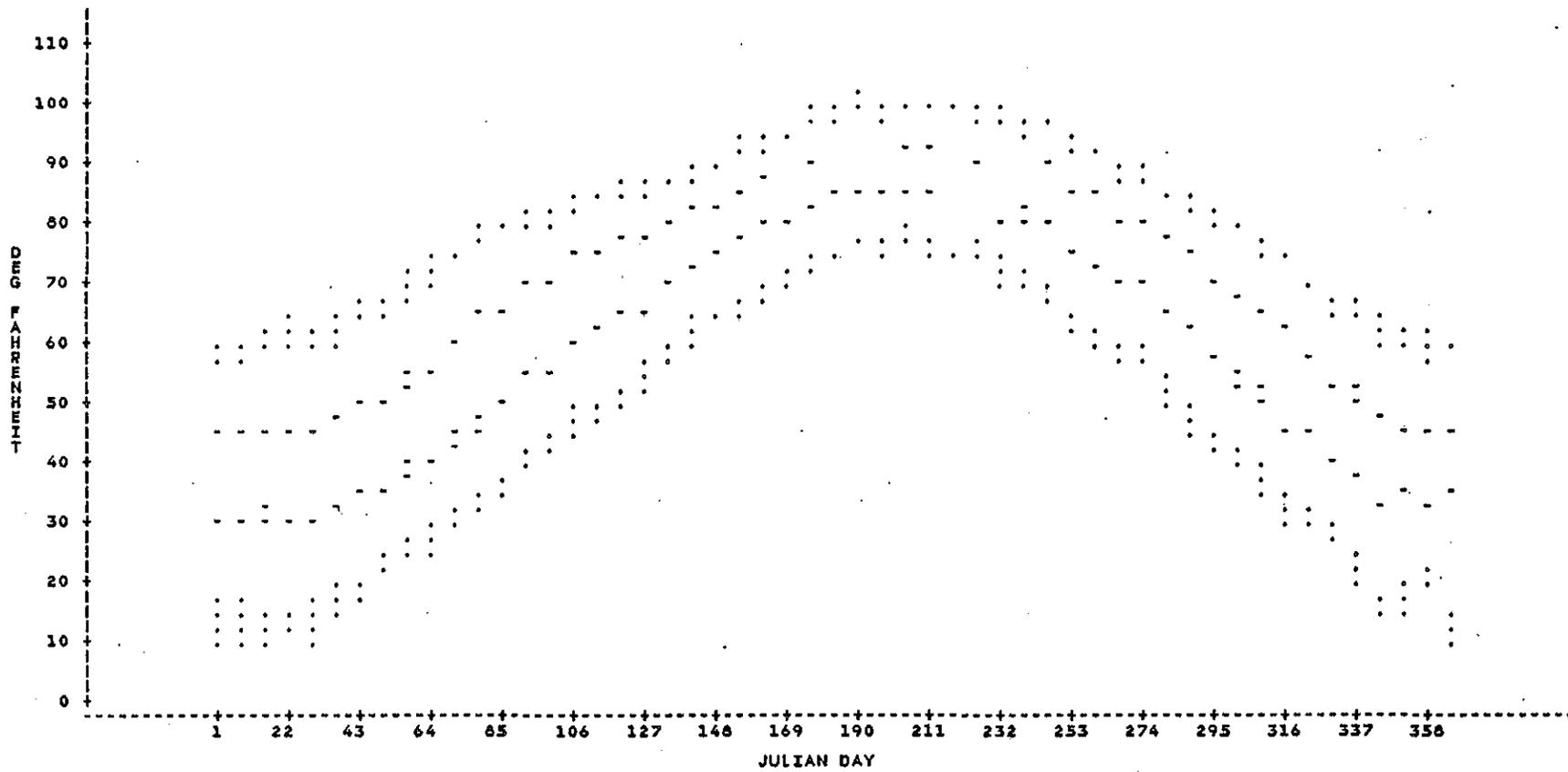


Figure 1

RANK PERCENTILE OF MINIMUM TEMPERATURES AT COLUMBIA MO

12:38 FRIDAY, SEPTEMBER 5, 1980 <sup>60</sup>

OUTER BOUNDARY - 5 AND 95 PERCENTILE  
INNER BOUNDARY - 30 AND 70 PERCENTILE

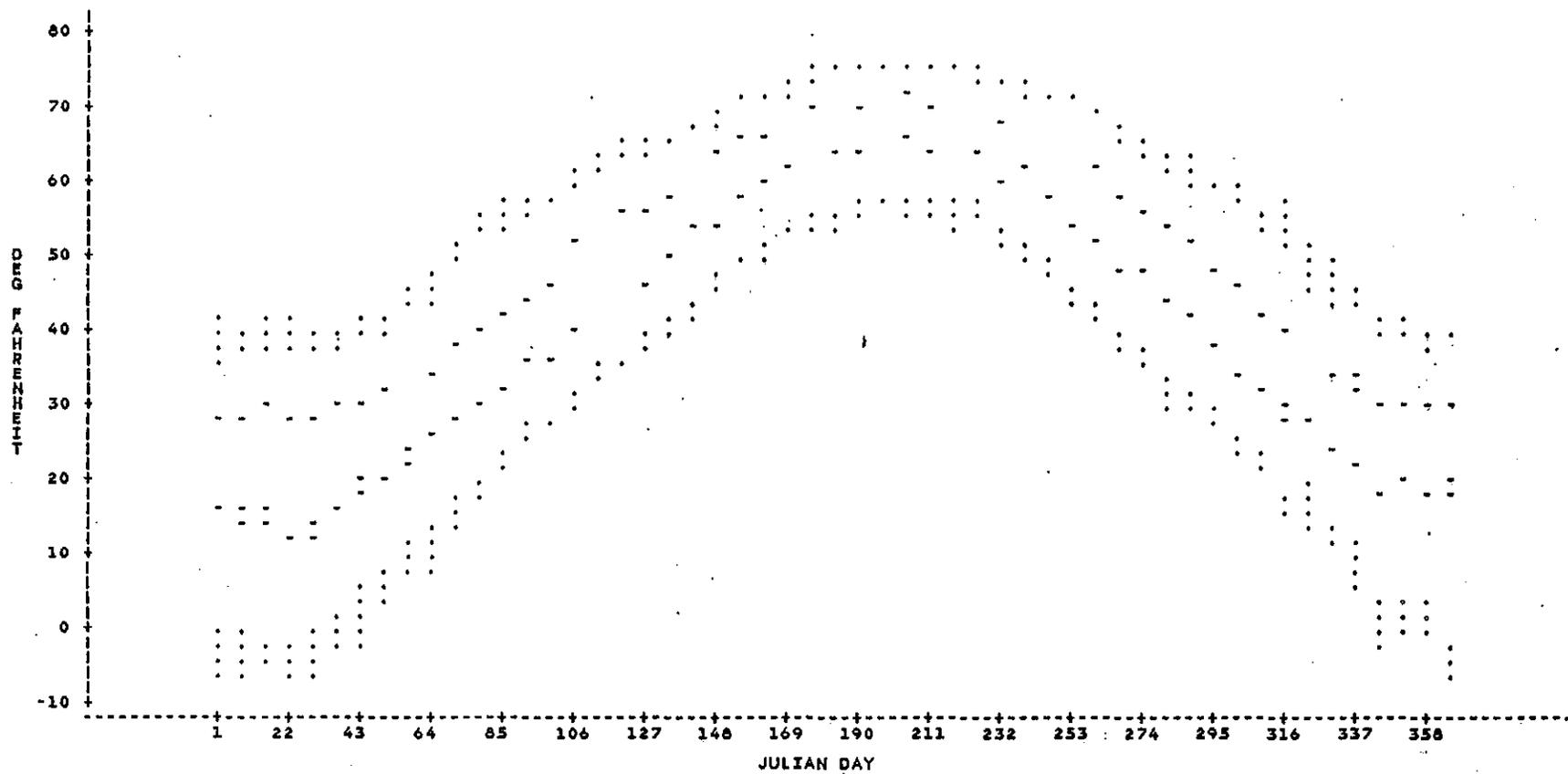


Figure 2

OUTER BOUNDARY - 5 AND 95 PERCENTILE  
INNER BOUNDARY - 30 AND 70 PERCENTILE

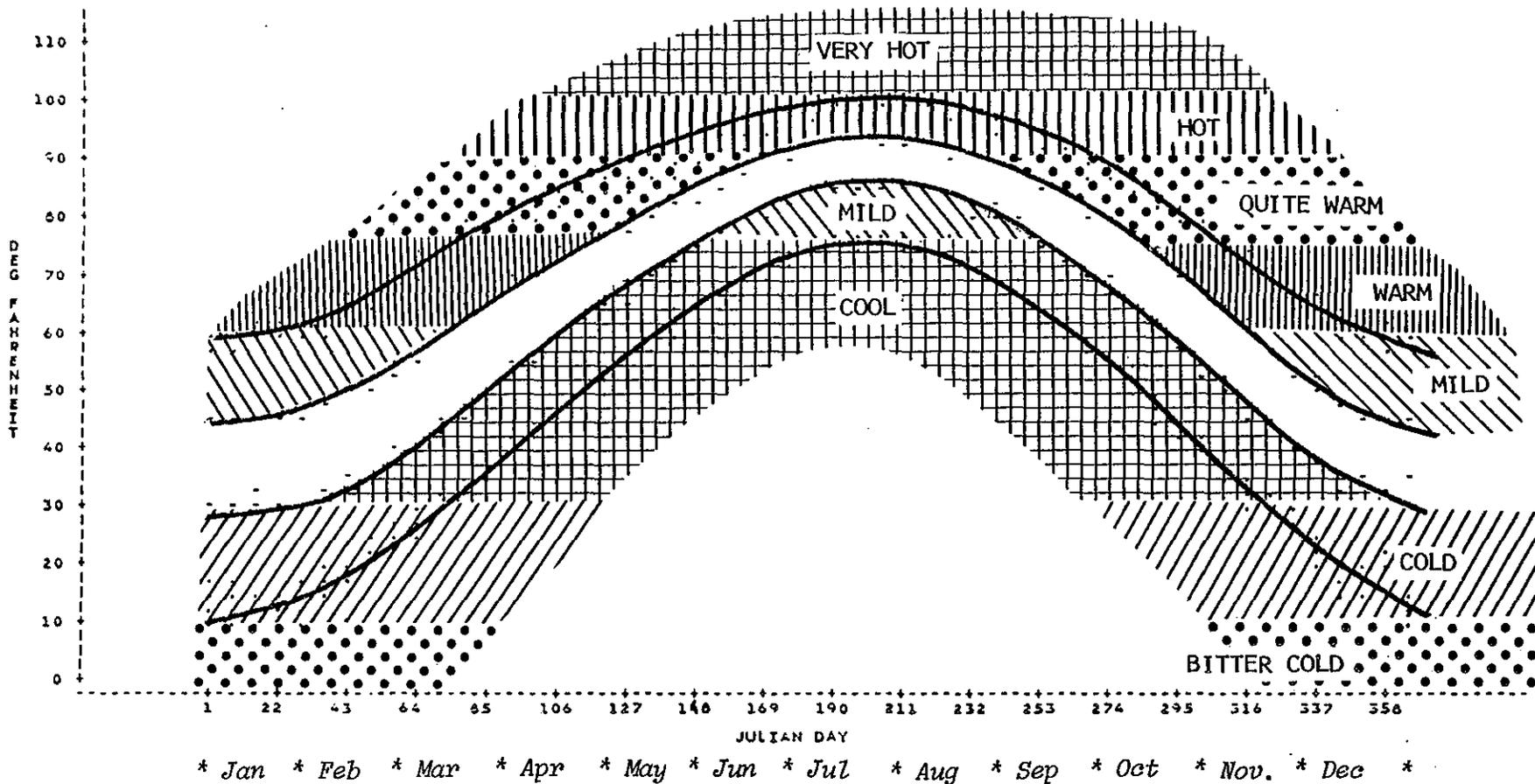


FIGURE 3  
MAXIMUM TEMPERATURE ADJECTIVES

RANK PERCENTILE OF MINIMUM TEMPERATURES AT COLUMBIA MO

12:30 FRIDAY, SEPTEMBER 5, 1980 <sup>60</sup>

OUTER BOUNDARY - 5 AND 95 PERCENTILE  
 INNER BOUNDARY - 30 AND 70 PERCENTILE

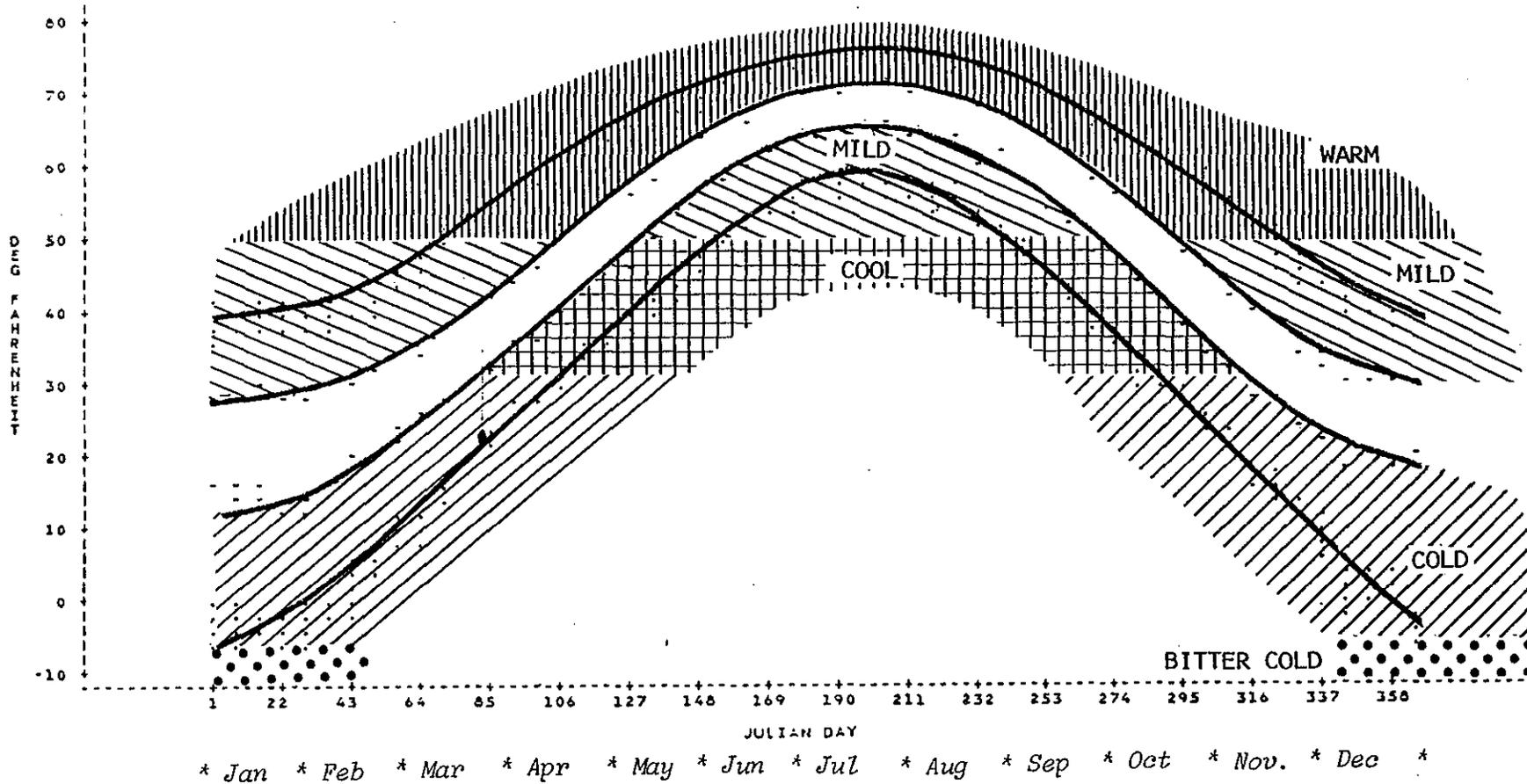


FIGURE 4  
 MINIMUM TEMPERATURE ADJECTIVES

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(continued from front inside cover)

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