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[] P R O G R A M C O F E C H A Version 6.06P 26363

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QUALITY CONTROL AND DATING CHECK OF TREE-RING MEASUREMENTS

Title of run: Mount Hunger-Waterbury-Mid Corr6-30

File of DATED series: mhw\_mid\_compact\_corr6.dta

CONTENTS:

Part 1: Title page, options selected, summary, absent rings by series

Part 2: Histogram of time spans

Part 3: Master series with sample depth and absent rings by year

Part 4: Bar plot of Master Dating Series

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Part 7: Descriptive statistics

RUN CONTROL OPTIONS SELECTED VALUE

Time span of Master dating series is 1906 to 2006 101 years

Continuous time span is 1906 to 2006 101 years

Portion with two or more series is 1907 to 2006 100 years

>> 1A 2006 absent in 28 of 42 series, but is not usually narrow: master index is .011

>> 3A 1993 absent in 2 of 42 series, but is not usually narrow: master index is -.219

>> 3A 2002 absent in 11 of 42 series, but is not usually narrow: master index is -.042

>> 3A 2004 absent in 16 of 42 series, but is not usually narrow: master index is .064

>> 3A 2005 absent in 18 of 42 series, but is not usually narrow: master index is 1.061

>> 3A 2006 absent in 28 of 42 series, but is not usually narrow: master index is .011

>> 3B 1986 absent in 1 of 42 series, but is not usually narrow: master index is -.396

>> 3B 1987 absent in 1 of 42 series, but is not usually narrow: master index is .142

>> 3B 1988 absent in 2 of 42 series, but is not usually narrow: master index is 1.340

>> 3B 1993 absent in 2 of 42 series, but is not usually narrow: master index is -.219

>> 3B 2002 absent in 11 of 42 series, but is not usually narrow: master index is -.042

>> 3B 2004 absent in 16 of 42 series, but is not usually narrow: master index is .064

>> 3B 2005 absent in 18 of 42 series, but is not usually narrow: master index is 1.061

>> 3B 2006 absent in 28 of 42 series, but is not usually narrow: master index is .011

>> 4A 2000 absent in 4 of 42 series, but is not usually narrow: master index is -.184

>> 4A 2001 absent in 9 of 42 series, but is not usually narrow: master index is -.209

>> 4A 2006 absent in 28 of 42 series, but is not usually narrow: master index is .011

>> 4B 2001 absent in 9 of 42 series, but is not usually narrow: master index is -.209

>> 6A 2001 absent in 9 of 42 series, but is not usually narrow: master index is -.209

>> 6A 2004 absent in 16 of 42 series, but is not usually narrow: master index is .064

>> 6A 2005 absent in 18 of 42 series, but is not usually narrow: master index is 1.061

>> 6A 2006 absent in 28 of 42 series, but is not usually narrow: master index is .011

>> 6B 2004 absent in 16 of 42 series, but is not usually narrow: master index is .064

>> 6B 2005 absent in 18 of 42 series, but is not usually narrow: master index is 1.061

>> 6B 2006 absent in 28 of 42 series, but is not usually narrow: master index is .011

>> 7B 2006 absent in 28 of 42 series, but is not usually narrow: master index is .011

>> 9A 1999 absent in 3 of 42 series, but is not usually narrow: master index is .468

>> 9A 2000 absent in 4 of 42 series, but is not usually narrow: master index is -.184

>> 9A 2001 absent in 9 of 42 series, but is not usually narrow: master index is -.209

>> 9A 2002 absent in 11 of 42 series, but is not usually narrow: master index is -.042

>> 9A 2004 absent in 16 of 42 series, but is not usually narrow: master index is .064

>> 9A 2005 absent in 18 of 42 series, but is not usually narrow: master index is 1.061

>> 9A 2006 absent in 28 of 42 series, but is not usually narrow: master index is .011

>> 9B 1999 absent in 3 of 42 series, but is not usually narrow: master index is .468

>> 9B 2000 absent in 4 of 42 series, but is not usually narrow: master index is -.184

>> 9B 2001 absent in 9 of 42 series, but is not usually narrow: master index is -.209

>> 9B 2002 absent in 11 of 42 series, but is not usually narrow: master index is -.042

>> 9B 2004 absent in 16 of 42 series, but is not usually narrow: master index is .064

>> 9B 2005 absent in 18 of 42 series, but is not usually narrow: master index is 1.061

>> 9B 2006 absent in 28 of 42 series, but is not usually narrow: master index is .011

>> 9xA 2001 absent in 9 of 42 series, but is not usually narrow: master index is -.209

>> 9xA 2002 absent in 11 of 42 series, but is not usually narrow: master index is -.042

>> 9xA 2006 absent in 28 of 42 series, but is not usually narrow: master index is .011

>> 9xB 2006 absent in 28 of 42 series, but is not usually narrow: master index is .011

>> 10A 2002 absent in 11 of 42 series, but is not usually narrow: master index is -.042

>> 10A 2004 absent in 16 of 42 series, but is not usually narrow: master index is .064

>> 10A 2005 absent in 18 of 42 series, but is not usually narrow: master index is 1.061

>> 10A 2006 absent in 28 of 42 series, but is not usually narrow: master index is .011

>> 10B 2000 absent in 4 of 42 series, but is not usually narrow: master index is -.184

>> 10B 2001 absent in 9 of 42 series, but is not usually narrow: master index is -.209

>> 10B 2002 absent in 11 of 42 series, but is not usually narrow: master index is -.042

>> 10B 2004 absent in 16 of 42 series, but is not usually narrow: master index is .064

>> 10B 2005 absent in 18 of 42 series, but is not usually narrow: master index is 1.061

>> 10B 2006 absent in 28 of 42 series, but is not usually narrow: master index is .011

>> 11A 2004 absent in 16 of 42 series, but is not usually narrow: master index is .064

>> 11A 2005 absent in 18 of 42 series, but is not usually narrow: master index is 1.061

>> 11A 2006 absent in 28 of 42 series, but is not usually narrow: master index is .011

>> 11B 2004 absent in 16 of 42 series, but is not usually narrow: master index is .064

>> 11B 2005 absent in 18 of 42 series, but is not usually narrow: master index is 1.061

>> 11B 2006 absent in 28 of 42 series, but is not usually narrow: master index is .011

>> 12A 2006 absent in 28 of 42 series, but is not usually narrow: master index is .011

>> 12B 2006 absent in 28 of 42 series, but is not usually narrow: master index is .011

>> 13A 2002 absent in 11 of 42 series, but is not usually narrow: master index is -.042

>> 13A 2006 absent in 28 of 42 series, but is not usually narrow: master index is .011

>> 14A 2004 absent in 16 of 42 series, but is not usually narrow: master index is .064

>> 14A 2005 absent in 18 of 42 series, but is not usually narrow: master index is 1.061

>> 14A 2006 absent in 28 of 42 series, but is not usually narrow: master index is .011

>> 14B 2004 absent in 16 of 42 series, but is not usually narrow: master index is .064

>> 14B 2005 absent in 18 of 42 series, but is not usually narrow: master index is 1.061

>> 14B 2006 absent in 28 of 42 series, but is not usually narrow: master index is .011

>> 15A 1938 absent in 1 of 41 series, but is not usually narrow: master index is .594

>> 15A 1939 absent in 1 of 41 series, but is not usually narrow: master index is .838

>> 15A 1964 absent in 1 of 42 series, but is not usually narrow: master index is -.199

>> 15A 2001 absent in 9 of 42 series, but is not usually narrow: master index is -.209

>> 15A 2002 absent in 11 of 42 series, but is not usually narrow: master index is -.042

>> 15A 2004 absent in 16 of 42 series, but is not usually narrow: master index is .064

>> 15A 2005 absent in 18 of 42 series, but is not usually narrow: master index is 1.061

>> 15A 2006 absent in 28 of 42 series, but is not usually narrow: master index is .011

>> 15B 1999 absent in 3 of 42 series, but is not usually narrow: master index is .468

>> 15B 2004 absent in 16 of 42 series, but is not usually narrow: master index is .064

>> 15B 2005 absent in 18 of 42 series, but is not usually narrow: master index is 1.061

>> 15B 2006 absent in 28 of 42 series, but is not usually narrow: master index is .011

>> 16A 2005 absent in 18 of 42 series, but is not usually narrow: master index is 1.061

>> 16A 2006 absent in 28 of 42 series, but is not usually narrow: master index is .011

>> 16B 1940 absent in 1 of 41 series, but is not usually narrow: master index is .158

>> 16B 1988 absent in 2 of 42 series, but is not usually narrow: master index is 1.340

>> 16B 1989 absent in 1 of 42 series, but is not usually narrow: master index is .509

>> 16B 1990 absent in 1 of 42 series, but is not usually narrow: master index is .106

>> 16B 1995 absent in 1 of 42 series, but is not usually narrow: master index is -.217

>> 16B 2005 absent in 18 of 42 series, but is not usually narrow: master index is 1.061

>> 16B 2006 absent in 28 of 42 series, but is not usually narrow: master index is .011

>> 18A 2001 absent in 9 of 42 series, but is not usually narrow: master index is -.209

>> 18A 2002 absent in 11 of 42 series, but is not usually narrow: master index is -.042

>> 18A 2004 absent in 16 of 42 series, but is not usually narrow: master index is .064

>> 18A 2005 absent in 18 of 42 series, but is not usually narrow: master index is 1.061

>> 18A 2006 absent in 28 of 42 series, but is not usually narrow: master index is .011

>> 18B 2002 absent in 11 of 42 series, but is not usually narrow: master index is -.042

>> 18B 2004 absent in 16 of 42 series, but is not usually narrow: master index is .064

>> 18B 2005 absent in 18 of 42 series, but is not usually narrow: master index is 1.061

>> 18B 2006 absent in 28 of 42 series, but is not usually narrow: master index is .011

>> 20A 2006 absent in 28 of 42 series, but is not usually narrow: master index is .011

>> 20B 2006 absent in 28 of 42 series, but is not usually narrow: master index is .011

ABSENT RINGS listed by SERIES: (See Master Dating Series for absent rings listed by year)

1A 2 absent rings: 1945 2006

1b 1 absent rings: 1948

3A 6 absent rings: 1993 2002 2003 2004 2005 2006

3B 10 absent rings: 1985 1986 1987 1988 1993 2002 2003 2004 2005 2006

4A 4 absent rings: 2000 2001 2003 2006

4B 1 absent rings: 2001

5A 1 absent rings: 2003

6A 4 absent rings: 2001 2004 2005 2006

6B 3 absent rings: 2004 2005 2006

7B 1 absent rings: 2006

9A 9 absent rings: 1945 1999 2000 2001 2002 2003 2004 2005 2006

9B 9 absent rings: 1945 1999 2000 2001 2002 2003 2004 2005 2006

9xA 3 absent rings: 2001 2002 2006

9xB 1 absent rings: 2006

10A 8 absent rings: 1945 1985 1992 2002 2003 2004 2005 2006

10B 8 absent rings: 1945 2000 2001 2002 2003 2004 2005 2006

11A 4 absent rings: 2003 2004 2005 2006

11B 4 absent rings: 2003 2004 2005 2006

12A 2 absent rings: 1936 2006

12B 2 absent rings: 1936 2006

13A 4 absent rings: 1985 2002 2003 2006

14A 4 absent rings: 2003 2004 2005 2006

14B 4 absent rings: 2003 2004 2005 2006

15A 10 absent rings: 1938 1939 1941 1964 2001 2002 2003 2004 2005 2006

15B 5 absent rings: 1945 1999 2004 2005 2006

16A 3 absent rings: 1945 2005 2006

16B 8 absent rings: 1937 1940 1988 1989 1990 1995 2005 2006

18A 7 absent rings: 1980 2001 2002 2003 2004 2005 2006

18B 5 absent rings: 2002 2003 2004 2005 2006

19A 1 absent rings: 2003

19B 1 absent rings: 2003

20A 1 absent rings: 2006

20B 2 absent rings: 1945 2006

138 absent rings 3.455%

Year Value No Ab Year Value No Ab Year Value No Ab Year Value No Ab Year Value No Ab Year Value No Ab

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1950 .639 42 2000 -.184 42 4<<

1951 .648 42 2001 -.209 42 9<<

1952 1.363 42 2002 -.042 42 11<<

1953 -.235 42 2003 -.883 42 18

1954 .731 42 2004 .064 42 16<<

1955 .839 42 2005 1.061 42 18<<

1906 -1.404 1 1956 .849 42 2006 .011 42 28<<

1907 -2.578 3 1957 -2.114 42

1908 -1.222 8 1958 -1.616 42

1909 -.178 11 1959 .307 42

1910 -.489 21 1960 .058 42

1911 1.299 26 1961 .566 42

1912 -.909 30 1962 -.497 42

1913 -.610 36 1963 .911 42

1914 .984 37 1964 -.199 42 1<<

1915 .346 38 1965 .389 42

1916 .185 38 1966 .696 42

1917 .220 40 1967 1.207 42

1918 .217 40 1968 -.201 42

1919 -2.128 40 1969 .996 42

1920 1.302 40 1970 .953 42

1921 .835 40 1971 .168 42

1922 -.458 40 1972 .140 42

1923 -.778 40 1973 -.514 42

1924 .748 40 1974 -.451 42

1925 1.326 40 1975 -.252 42

1926 .488 40 1976 -.945 42

1927 .999 40 1977 .703 42

1928 .886 41 1978 1.206 42

1929 -.868 41 1979 .091 42

1930 -.315 41 1980 -2.375 42 1

1931 .726 41 1981 -2.366 42

1932 -1.302 41 1982 .851 42

1933 -1.008 41 1983 .318 42

1934 1.436 41 1984 -.035 42

1935 1.668 41 1985 -1.595 42 3

1936 -2.993 41 2 1986 -.396 42 1<<

1937 -.608 41 1 1987 .142 42 1<<

1938 .594 41 1<< 1988 1.340 42 2<<

1939 .838 41 1<< 1989 .509 42 1<<

1940 .158 41 1<< 1990 .106 42 1<<

1941 -1.228 42 1 1991 .614 42

1942 -.325 42 1992 -.411 42 1

1943 .937 42 1993 -.219 42 2<<

1944 .318 42 1994 .971 42

1945 -2.557 42 8 1995 -.217 42 1<<

1946 -1.071 42 1996 .193 42

1947 .744 42 1997 1.333 42

1948 -.441 42 1 1998 .898 42

1949 -.167 42 1999 .468 42 3<<

PART 5: CORRELATION OF SERIES BY SEGMENTS: Mount Hunger-Waterbury-Mid Corr6-30 13:14 Mon 05 Mar 2007 Page 5

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Correlations of 30-year dated segments, lagged 15 years

Flags: A = correlation under .4226 but highest as dated; B = correlation higher at other than dated position

Seq Series Time\_span 1905 1920 1935 1950 1965 1980

1934 1949 1964 1979 1994 2009

--- -------- --------- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ----

1 1A 1907 2006 .63 .66 .76 .60 .38B .42A

2 1b 1906 2006 .56 .62 .49 .22A .68 .69

3 2A 1912 2006 .75 .72 .51 .27B .63 .52

4 2B 1912 2006 .76 .74 .48 .27B .68 .54

5 3A 1910 2006 .80 .78 .71 .46 .48 .61

6 3B 1908 2006 .78 .81 .77 .56 .40A .50

7 4A 1910 2006 .27B .74 .70 .54 .53 .60

8 4B 1911 2006 .29B .70 .83 .64 .41A .53

9 5A 1911 2006 .43B .49 .49 .45 .59 .70

10 5B 1917 2006 .50 .61 .67 .59 .36B .45

11 6A 1915 2006 .44 .62 .64 .67 .74 .68

12 6B 1917 2006 .69 .67 .76 .68 .55 .47

13 7A 1910 2006 .70 .32B .27B .66 .63 .43

14 7B 1908 2006 .76 .76 .85 .81 .62 .37A

15 8A 1911 2006 .56 .59 .65 .60 .78 .84

16 8B 1913 2006 .23B .29B .46B .44 .42B .55

17 9A 1908 2006 .84 .81 .81 .81 .76 .57

18 9B 1910 2006 .76 .77 .79 .64 .46 .39A

19 9xA 1941 2006 .62 .58 .64 .71

20 9xB 1928 2006 .60 .58 .60 .52 .67

21 10A 1909 2006 .62 .54 .33B .23B .50 .46

22 10B 1910 2006 .78 .72 .70 .52 .36A .19B

23 11A 1910 2006 .53 .58 .50 .42A .53B .40B

24 11B 1910 2006 .76 .78 .75 .12B .08B .09B

25 12A 1912 2006 .65 .55 .59 .59 .62 .58

26 12B 1910 2006 .61 .65 .61 .37A .39A .49

27 13A 1913 2006 .78 .63 .68 .74 .62 .60

28 13B 1910 2006 .62 .63 .65 .59 .62 .72

29 14A 1914 2006 .70 .76 .71 .39A .30B .38A

30 14B 1913 2006 .78 .75 .65 .38A .55 .69

31 15A 1911 2006 .67 .73 .64 .60 .68 .57

32 15B 1909 2006 .81 .81 .81 .73 .61 .44

33 16A 1913 2006 .65 .57 .35A .41A .36A .22B

34 16B 1909 2006 .47 .37B .37A .47 .41A .47

35 17A 1907 2006 .50 .58 .72 .55 .21A .13B

36 17B 1908 2006 .57 .77 .83 .62 .61 .70

37 18A 1910 2006 .57 .70 .81 .63 .55 .62

38 18B 1913 2006 .50 .61 .63 .60 .12B .05B

39 19A 1912 2006 .74 .80 .73 .44 .66 .74

40 19B 1913 2006 .75 .80 .82 .57 .54 .48

41 20A 1911 2006 .63 .59B .47B .40A .69 .72

42 20B 1908 2006 .56 .61 .57 .23B .56 .50

Av segment correlation .63 .65 .64 .52 .52 .51

PART 6: POTENTIAL PROBLEMS: Mount Hunger-Waterbury-Mid Corr6-30 13:14 Mon 05 Mar 2007 Page 5

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For each series with potential problems the following diagnostics may appear:

[A] Correlations with master dating series of flagged 30-year segments of series filtered with 32-year spline,

at every point from ten years earlier (-10) to ten years later (+10) than dated

[B] Effect of those data values which most lower or raise correlation with master series

Symbol following year indicates value in series is greater (>) or lesser (<) than master series value

[C] Year-to-year changes very different from the mean change in other series

[D] Absent rings (zero values)

[E] Values which are statistical outliers from mean for the year

====================================================================================================================================

1A 1907 to 2006 100 years Series 1

[A] Segment High -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 +0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10

--------- ---- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

1965 1994 -1 -.13 -.02 -.04 -.03 .22 .30 -.08 .01 .16 .53\* .38|-.12 -.12 .07 .19 .08 -.34 -.03 -.10 .14 -.03

1977 2006 0 .23 -.02 .08 -.09 .24 .33 -.18 -.05 .21 .40 .42\* - - - - - - - - - -

[B] Entire series, effect on correlation ( .596) is:

Lower 1982< -.037 1908> -.021 1980> -.015 1986< -.015 1954< -.010 1922< -.009 Higher 1945 .037 1936 .031

1965 to 1994 segment:

Lower 1982< -.144 1980> -.043 1986< -.038 1968> -.025 1975> -.021 1992> -.018 Higher 1985 .082 1981 .075

1977 to 2006 segment:

Lower 1982< -.138 1980> -.064 1986< -.038 1992> -.021 1979> -.010 1988< -.008 Higher 1985 .069 1981 .062

[D] 2 Absent rings: Year Master N series Absent

1945 -2.557 42 8

2006 .011 42 28 >> WARNING: Ring is not usually narrow

>> WARNING: Last ring in series is ABSENT

1A Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1907 174 269 256

1910 250 243 198 238 278 261 236 165 134 124

1920 158 171 102 131 123 128 127 105 113 94

1930 67 100 66 58 103 115 15 54 40 74

1940 37 12 34 61 56 0 41 55 25 48

1950 69 45 59 47 39 86 73 28 54 76

1960 64 65 103 142 80 102 120 173 159 129

1970 171 101 109 135 139 177 107 175 165 158

1980 126 99 98 144 134 104 99 139 146 141

1990 148 177 150 141 165 84 134 149 165 145

2000 86 73 92 70 143 143 0

====================================================================================================================================

1b 1906 to 2006 101 years Series 2

[\*] Early part of series cannot be checked from 1906 to 1906 -- not matched by another series

[A] Segment High -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 +0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10

--------- ---- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

1950 1979 0 -.01 -.11 .11 -.09 -.16 -.37 -.16 .17 -.12 -.13 .22\* .07 -.16 -.08 -.10 -.15 -.14 -.09 .08 -.15 -.10

[B] Entire series, effect on correlation ( .481) is:

Lower 1908> -.029 1942< -.021 1907> -.018 1957> -.012 1962> -.011 1956< -.010 Higher 1936 .038 1980 .034

1950 to 1979 segment:

Lower 1956< -.048 1962> -.045 1976> -.032 1953> -.029 1961< -.025 1975> -.022 Higher 1952 .042 1977 .031

[D] 1 Absent rings: Year Master N series Absent

1948 -.441 42 1

1b Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1906 186 194 275 230

1910 236 209 139 158 211 301 207 206 191 148

1920 260 228 103 146 133 139 122 101 109 80

1930 76 109 60 70 96 105 13 43 31 45

1940 15 9 4 43 54 6 52 51 0 52

1950 73 76 91 76 59 102 41 42 68 63

1960 42 54 104 108 68 62 93 94 52 84

1970 93 74 99 86 87 140 130 174 136 128

1980 39 54 102 101 130 53 90 103 137 80

1990 113 91 71 90 117 61 47 69 82 95

2000 52 62 105 73 59 96 72

====================================================================================================================================

2A 1912 to 2006 95 years Series 3

[A] Segment High -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 +0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10

--------- ---- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

1950 1979 7 -.08 .01 -.20 -.32 -.14 .09 .25 .13 -.11 -.09 .27| .06 .08 .10 -.08 -.22 -.02 .31\* .00 -.22 -.25

[B] Entire series, effect on correlation ( .524) is:

Lower 1961< -.031 2003< -.027 1987< -.017 1951< -.016 1964> -.015 2005< -.014 Higher 1936 .026 1980 .024

1950 to 1979 segment:

Lower 1961< -.120 1964> -.064 1951< -.056 1958> -.015 1974> -.014 1953> -.011 Higher 1957 .085 1973 .035

2A Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1912 201 186 256 223 183 181 189 159

1920 193 185 173 132 246 205 193 181 191 110

1930 103 196 126 162 162 192 77 102 142 157

1940 134 84 90 154 133 64 68 80 54 79

1950 89 64 107 106 101 94 107 85 103 130

1960 107 60 83 145 185 196 184 145 105 115

1970 145 120 102 71 113 119 105 105 112 89

1980 52 58 112 98 70 56 72 44 94 82

1990 101 97 69 61 65 47 49 74 84 117

2000 69 61 71 32 81 62 66

====================================================================================================================================

2B 1912 to 2006 95 years Series 4

[A] Segment High -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 +0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10

--------- ---- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

1950 1979 7 -.13 -.04 -.16 -.29 -.19 .08 .27 .18 -.09 -.05 .27| .06 .03 .09 -.03 -.23 -.09 .29\* .02 -.17 -.20

[B] Entire series, effect on correlation ( .534) is:

Lower 1961< -.040 2003< -.033 1951< -.013 1964> -.012 1996< -.011 1987< -.009 Higher 1980 .024 1936 .021

1950 to 1979 segment:

Lower 1961< -.155 1964> -.048 1951< -.042 1974> -.011 1950< -.011 1958> -.011 Higher 1957 .039 1973 .035

2B Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1912 202 184 251 219 184 184 185 156

1920 195 174 172 133 248 208 187 181 188 116

1930 105 195 127 161 159 192 79 104 142 157

1940 134 87 86 157 133 67 63 76 56 76

1950 86 71 108 103 105 95 103 87 103 128

1960 106 57 82 147 180 192 183 144 106 116

1970 145 116 101 65 109 120 103 104 115 91

1980 50 55 107 101 72 52 66 49 92 80

1990 105 102 75 70 63 48 44 81 84 113

2000 69 60 72 31 82 63 64

====================================================================================================================================

3A 1910 to 2006 97 years Series 5

[B] Entire series, effect on correlation ( .608) is:

Lower 1974< -.055 1957> -.028 1984< -.013 1929> -.011 1993< -.011 1922> -.010 Higher 1936 .072 1912 .010

[D] 6 Absent rings: Year Master N series Absent

1993 -.219 42 2 >> WARNING: Ring is not usually narrow

2002 -.042 42 11 >> WARNING: Ring is not usually narrow

2003 -.883 42 18

2004 .064 42 16 >> WARNING: Ring is not usually narrow

2005 1.061 42 18 >> WARNING: Ring is not usually narrow

2006 .011 42 28 >> WARNING: Ring is not usually narrow

>> WARNING: Last ring in series is ABSENT

[E] Outliers 1 3.0 SD above or -4.5 SD below mean for year

1974 -5.4 SD

3A Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1910 170 223 149 162 241 318 251 284 265 198

1920 276 229 288 271 280 321 226 264 234 236

1930 219 226 150 148 206 204 93 97 141 139

1940 112 107 119 115 100 65 65 81 45 69

1950 59 96 115 80 123 149 205 118 64 77

1960 98 105 80 116 49 95 103 98 57 123

1970 96 73 86 58 15 48 33 51 67 37

1980 24 25 43 37 13 14 14 19 20 13

1990 15 17 17 0 27 10 18 35 22 24

2000 4 15 0 0 0 0 0

====================================================================================================================================

3B 1908 to 2006 99 years Series 6

[A] Segment High -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 +0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10

--------- ---- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

1965 1994 0 .08 -.27 .05 -.36 .05 -.21 .32 .21 -.34 -.19 .40\* .02 -.23 -.12 -.10 .19 .35 .13 .20 -.14 -.28

[B] Entire series, effect on correlation ( .621) is:

Lower 1981> -.026 1988< -.021 1957> -.021 1980> -.016 1968< -.013 2005< -.010 Higher 1936 .062 1945 .026

1965 to 1994 segment:

Lower 1981> -.098 1988< -.072 1980> -.047 1992> -.013 1993< -.010 1971> -.009 Higher 1985 .059 1982 .042

[D] 10 Absent rings: Year Master N series Absent

1985 -1.595 42 3

1986 -.396 42 1 >> WARNING: Ring is not usually narrow

1987 .142 42 1 >> WARNING: Ring is not usually narrow

1988 1.340 42 2 >> WARNING: Ring is not usually narrow

1993 -.219 42 2 >> WARNING: Ring is not usually narrow

2002 -.042 42 11 >> WARNING: Ring is not usually narrow

2003 -.883 42 18

2004 .064 42 16 >> WARNING: Ring is not usually narrow

2005 1.061 42 18 >> WARNING: Ring is not usually narrow

2006 .011 42 28 >> WARNING: Ring is not usually narrow

>> WARNING: Last ring in series is ABSENT

3B Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1908 64 202

1910 185 218 148 151 204 264 217 213 246 178

1920 270 195 226 190 263 310 205 251 259 191

1930 233 241 174 157 213 202 87 119 167 182

1940 205 128 138 170 78 44 48 97 58 68

1950 92 83 105 74 109 104 214 107 80 86

1960 82 130 60 124 54 65 107 85 20 127

1970 114 107 82 55 22 35 25 38 72 43

1980 30 52 89 44 11 0 0 0 0 12

1990 14 20 14 0 23 8 8 28 17 14

2000 5 5 0 0 0 0 0

====================================================================================================================================

4A 1910 to 2006 97 years Series 7

[A] Segment High -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 +0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10

--------- ---- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

1910 1939 4 - - - - - - -.21 .16 -.04 -.22 .27|-.02 -.18 .01 .44\*-.26 -.14 .09 .08 -.13 -.08

[B] Entire series, effect on correlation ( .430) is:

Lower 1915< -.182 1966< -.013 1912> -.012 1913> -.007 1957> -.007 1974> -.005 Higher 1945 .044 1936 .027

1910 to 1939 segment:

Lower 1915< -.416 1912> -.025 1913> -.014 1910> -.009 1923> -.008 1932> -.008 Higher 1936 .084 1919 .034

[C] Year-to-year changes diverging by over 4.0 std deviations:

1914 1915 -4.8 SD 1915 1916 5.5 SD

[D] 4 Absent rings: Year Master N series Absent

2000 -.184 42 4 >> WARNING: Ring is not usually narrow

2001 -.209 42 9 >> WARNING: Ring is not usually narrow

2003 -.883 42 18

2006 .011 42 28 >> WARNING: Ring is not usually narrow

>> WARNING: Last ring in series is ABSENT

[E] Outliers 1 3.0 SD above or -4.5 SD below mean for year

1915 -9.4 SD

4A Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1910 254 226 228 266 207 16 205 228 177 111

1920 188 146 147 166 155 171 118 148 134 94

1930 98 118 102 94 131 108 50 71 89 86

1940 105 69 81 71 46 24 64 77 55 69

1950 83 62 76 86 118 98 117 67 43 96

1960 74 75 61 112 70 91 67 117 86 106

1970 110 104 105 101 112 82 73 107 125 93

1980 57 54 87 51 51 36 41 33 63 96

1990 33 52 25 31 43 22 26 43 10 3

2000 0 0 14 0 22 19 0

====================================================================================================================================

4B 1911 to 2006 96 years Series 8

[A] Segment High -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 +0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10

--------- ---- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

1911 1940 4 - - - - - -.05 -.18 .18 .07 -.20 .29|-.13 -.11 -.06 .40\*-.31 -.05 .13 .04 -.09 -.13

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

1965 1994 0 .01 -.01 .10 .18 .21 .00 .04 -.28 -.12 -.07 .41\*-.15 -.35 -.27 -.19 .27 -.10 -.35 -.10 .11 .23

[B] Entire series, effect on correlation ( .463) is:

Lower 1915< -.144 2003> -.013 1929> -.013 1938< -.011 1973> -.010 1981> -.009 Higher 1936 .040 1945 .038

1911 to 1940 segment:

Lower 1915< -.277 1929> -.024 1938< -.018 1913> -.016 1912> -.015 1932> -.014 Higher 1936 .131 1919 .034

1965 to 1994 segment:

Lower 1973> -.053 1966< -.049 1974> -.036 1965< -.034 1981> -.033 1993< -.031 Higher 1980 .089 1988 .054

[C] Year-to-year changes diverging by over 4.0 std deviations:

1914 1915 -4.4 SD 1915 1916 5.2 SD

[D] 1 Absent rings: Year Master N series Absent

2001 -.209 42 9 >> WARNING: Ring is not usually narrow

[E] Outliers 1 3.0 SD above or -4.5 SD below mean for year

1915 -8.4 SD

4B Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1911 219 193 247 201 20 196 192 184 115

1920 185 169 134 139 172 133 140 174 150 140

1930 87 143 123 116 143 121 39 64 67 82

1940 99 53 61 75 72 32 61 85 65 62

1950 86 82 80 69 84 107 93 34 60 89

1960 67 87 73 88 65 69 76 97 87 110

1970 106 103 108 125 126 72 67 134 120 90

1980 53 81 113 95 89 57 61 61 111 74

1990 27 32 17 11 46 31 48 61 22 7

2000 7 0 20 38 26 47 8

====================================================================================================================================

5A 1911 to 2006 96 years Series 9

[A] Segment High -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 +0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10

--------- ---- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

1911 1940 -4 - - - - - .23 .44\*-.17 -.07 .22 .43|-.20 -.30 .15 .14 .06 .06 -.07 -.05 .28 .10

[B] Entire series, effect on correlation ( .491) is:

Lower 1945> -.033 1968< -.023 1919> -.020 1955< -.016 1929> -.012 1911< -.010 Higher 1980 .044 1957 .038

1911 to 1940 segment:

Lower 1919> -.043 1929> -.037 1911< -.032 1922> -.030 1937< -.024 1938< -.024 Higher 1936 .057 1932 .053

[D] 1 Absent rings: Year Master N series Absent

2003 -.883 42 18

5A Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1911 149 140 135 179 245 213 233 213 228

1920 289 252 280 218 274 305 243 236 295 271

1930 274 249 176 176 202 239 163 148 149 200

1940 168 112 160 213 147 168 156 193 140 158

1950 185 173 139 143 143 99 165 81 98 98

1960 97 113 112 137 130 150 109 99 45 89

1970 79 82 58 58 74 107 67 89 92 92

1980 34 45 65 53 51 42 38 35 41 37

1990 34 34 25 31 36 23 29 20 35 23

2000 19 22 15 0 8 30 12

====================================================================================================================================

5B 1917 to 2006 90 years Series 10

[A] Segment High -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 +0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10

--------- ---- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

1965 1994 9 .00 -.10 -.18 -.16 -.11 -.19 -.29 -.19 -.17 -.03 .36| .12 .04 .08 .08 -.01 -.17 -.04 .19 .48\* .39

[B] Entire series, effect on correlation ( .503) is:

Lower 1920< -.047 1919> -.026 1972< -.016 1918< -.013 1961< -.012 1981> -.011 Higher 1957 .057 1936 .026

1965 to 1994 segment:

Lower 1972< -.056 1971< -.034 1981> -.031 1970< -.025 1987> -.025 1982< -.023 Higher 1988 .046 1969 .039

5B Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1917 257 168 204

1920 172 289 235 206 234 247 210 274 279 221

1930 212 250 183 151 195 263 174 181 153 193

1940 204 146 173 188 135 106 129 151 123 120

1950 134 158 130 111 106 98 139 68 73 76

1960 92 74 76 105 104 107 112 99 92 117

1970 80 46 41 60 66 75 69 81 93 86

1980 68 70 69 67 81 67 71 104 108 96

1990 64 62 35 26 45 36 30 60 37 26

2000 22 19 21 11 14 43 36

====================================================================================================================================

6A 1915 to 2006 92 years Series 11

[B] Entire series, effect on correlation ( .554) is:

Lower 1919> -.052 1960< -.024 1998< -.016 1922< -.012 1929> -.009 1915< -.007 Higher 1957 .046 1980 .028

[D] 4 Absent rings: Year Master N series Absent

2001 -.209 42 9 >> WARNING: Ring is not usually narrow

2004 .064 42 16 >> WARNING: Ring is not usually narrow

2005 1.061 42 18 >> WARNING: Ring is not usually narrow

2006 .011 42 28 >> WARNING: Ring is not usually narrow

>> WARNING: Last ring in series is ABSENT

[E] Outliers 1 3.0 SD above or -4.5 SD below mean for year

1919 +3.0 SD

6A Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1915 99 135 124 131 151

1920 151 136 79 66 125 151 146 154 156 152

1930 130 125 102 114 237 192 76 106 177 200

1940 191 133 167 162 116 79 74 110 92 100

1950 105 130 131 102 135 152 124 73 87 171

1960 123 183 175 178 167 183 170 201 198 214

1970 200 192 130 139 119 119 112 147 210 165

1980 59 66 111 93 92 52 95 84 121 95

1990 93 113 44 97 163 89 87 103 28 3

2000 20 0 11 8 0 0 0

====================================================================================================================================

6B 1917 to 2006 90 years Series 12

[B] Entire series, effect on correlation ( .614) is:

Lower 1998< -.032 1969< -.028 1932> -.022 1941> -.019 1935< -.018 2003> -.014 Higher 1936 .063 1957 .040

[D] 3 Absent rings: Year Master N series Absent

2004 .064 42 16 >> WARNING: Ring is not usually narrow

2005 1.061 42 18 >> WARNING: Ring is not usually narrow

2006 .011 42 28 >> WARNING: Ring is not usually narrow

>> WARNING: Last ring in series is ABSENT

6B Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1917 144 141 119

1920 158 145 112 105 171 218 212 224 212 172

1930 207 164 161 135 232 136 37 48 119 140

1940 125 127 99 100 97 38 60 78 67 63

1950 124 116 109 86 104 82 121 66 69 141

1960 117 115 125 152 135 140 149 214 196 98

1970 144 115 121 91 75 120 100 174 173 136

1980 84 62 99 91 97 89 92 91 90 86

1990 84 101 62 37 84 44 61 82 19 4

2000 8 6 14 16 0 0 0

====================================================================================================================================

7A 1910 to 2006 97 years Series 13

[A] Segment High -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 +0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10

--------- ---- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

1920 1949 -7 .20 -.06 -.33 .39\* .00 -.27 .00 .05 -.04 -.14 .32| .04 .01 -.03 .27 .18 .02 -.16 -.09 -.02 .07

1935 1964 2 .17 -.04 -.26 .44 -.06 -.07 -.07 -.23 -.11 -.13 .27|-.22 .44\* .04 .08 .15 .09 -.11 -.11 -.09 .00

[B] Entire series, effect on correlation ( .460) is:

Lower 1943< -.091 1945> -.021 1981> -.015 2006< -.015 1948> -.013 1912> -.010 Higher 1919 .051 1936 .037

1920 to 1949 segment:

Lower 1943< -.263 1945> -.031 1948> -.025 1929> -.016 1925< -.013 1944> -.008 Higher 1936 .159 1932 .089

1935 to 1964 segment:

Lower 1943< -.279 1945> -.035 1948> -.028 1954< -.022 1955< -.018 1951< -.017 Higher 1936 .172 1957 .057

[C] Year-to-year changes diverging by over 4.0 std deviations:

1943 1944 4.2 SD

[E] Outliers 1 3.0 SD above or -4.5 SD below mean for year

1943 -5.5 SD

7A Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1910 174 238 214 232 240 188 167 159 191 121

1920 179 202 178 200 242 186 195 191 189 192

1930 156 157 86 139 241 211 106 170 162 171

1940 139 131 137 53 176 141 142 135 171 159

1950 172 96 158 86 78 73 91 63 59 145

1960 140 150 119 126 99 137 133 173 119 179

1970 222 183 135 104 93 77 77 182 191 112

1980 67 122 198 129 56 41 89 89 161 103

1990 133 186 133 108 85 118 111 156 161 156

2000 79 58 35 62 66 51 6

====================================================================================================================================

7B 1908 to 2006 99 years Series 14

[A] Segment High -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 +0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10

--------- ---- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

1977 2006 0 -.10 .16 -.32 -.12 -.11 .09 .17 -.08 -.14 .11 .37\* - - - - - - - - - -

[B] Entire series, effect on correlation ( .671) is:

Lower 2005< -.025 1929> -.021 1966< -.011 2003> -.011 1995> -.010 1912> -.009 Higher 1936 .049 1957 .029

1977 to 2006 segment:

Lower 2005< -.098 2003> -.040 1995> -.040 1994< -.021 1984< -.021 1981> -.020 Higher 1980 .074 1988 .066

[D] 1 Absent rings: Year Master N series Absent

2006 .011 42 28 >> WARNING: Ring is not usually narrow

>> WARNING: Last ring in series is ABSENT

7B Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1908 155 203

1910 185 234 198 172 250 180 137 128 128 101

1920 161 182 164 173 232 213 174 185 148 186

1930 126 154 111 109 165 175 98 139 145 145

1940 137 124 181 196 142 90 98 127 112 122

1950 139 171 182 116 150 165 146 75 92 172

1960 184 210 190 215 142 172 135 161 177 213

1970 293 173 141 111 121 115 111 162 214 161

1980 96 110 166 153 93 89 118 137 238 180

1990 124 166 101 95 92 126 87 96 81 120

2000 78 49 18 33 17 2 0

====================================================================================================================================

8A 1911 to 2006 96 years Series 15

[B] Entire series, effect on correlation ( .636) is:

Lower 1945> -.030 1919> -.028 1922< -.012 1978< -.012 1968> -.008 1932> -.008 Higher 1980 .029 1957 .028

8A Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1911 274 182 249 297 276 186 296 262 219

1920 242 260 113 107 151 212 166 195 210 77

1930 71 106 118 100 269 290 123 167 168 139

1940 146 69 107 181 142 132 101 135 128 177

1950 239 239 201 98 94 136 179 89 99 102

1960 148 219 189 199 203 168 159 184 222 236

1970 243 214 196 171 135 130 93 137 107 82

1980 40 36 108 92 93 59 106 105 130 109

1990 92 85 58 75 108 83 78 145 109 71

2000 23 26 31 28 27 52 30

====================================================================================================================================

8B 1913 to 2006 94 years Series 16

[A] Segment High -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 +0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10

--------- ---- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

1913 1942 -5 - - - -.12 -.10 .29\*-.09 .02 -.35 .06 .23|-.13 -.10 -.02 .13 -.19 .09 .17 .11 -.19 .04

1920 1949 -9 -.04 .35\*-.10 -.12 -.14 .31 -.11 .04 -.37 -.07 .29|-.13 -.19 -.07 .23 -.14 -.01 .18 .14 -.13 -.08

1935 1964 -5 -.16 .35 .10 -.31 -.19 .47\*-.01 -.10 -.15 -.01 .46|-.36 -.21 -.03 .40 .06 -.08 .19 -.10 .14 -.44

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

1965 1994 5 -.17 .02 -.19 .01 -.26 -.03 .11 -.33 -.18 -.23 .42| .25 -.22 -.17 .20 .52\* .05 -.14 -.10 .10 .34

[B] Entire series, effect on correlation ( .366) is:

Lower 1936> -.039 1919> -.025 1981> -.023 1928< -.016 1930< -.013 1964> -.013 Higher 1980 .050 1941 .019

1913 to 1942 segment:

Lower 1936> -.090 1919> -.056 1928< -.031 1932> -.020 1930< -.020 1933> -.020 Higher 1941 .075 1935 .040

1920 to 1949 segment:

Lower 1936> -.098 1928< -.033 1930< -.026 1932> -.021 1933> -.019 1924< -.014 Higher 1941 .056 1935 .037

1935 to 1964 segment:

Lower 1936> -.110 1951< -.044 1964> -.027 1941< -.017 1959< -.017 1946> -.009 Higher 1957 .042 1935 .030

1965 to 1994 segment:

Lower 1981> -.107 1984> -.034 1975< -.032 1974> -.031 1969< -.027 1972< -.022 Higher 1980 .240 1982 .024

[E] Outliers 1 3.0 SD above or -4.5 SD below mean for year

1936 +3.0 SD

8B Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1913 228 326 375 222 257 277 236

1920 240 201 43 75 100 147 140 174 68 49

1930 18 93 120 161 139 223 142 103 130 131

1940 177 44 79 200 188 116 167 230 123 124

1950 152 98 179 112 219 207 256 128 105 118

1960 161 195 133 176 216 189 162 164 150 130

1970 121 127 110 123 175 106 92 147 171 139

1980 79 138 176 137 185 123 143 143 130 103

1990 83 110 97 86 76 65 112 119 94 67

2000 20 7 26 29 38 57 45

====================================================================================================================================

9A 1908 to 2006 99 years Series 17

[B] Entire series, effect on correlation ( .705) is:

Lower 1999< -.026 1995< -.017 1948> -.015 1919> -.014 1981> -.014 2006> -.013 Higher 1936 .043 1945 .027

[D] 9 Absent rings: Year Master N series Absent

1945 -2.557 42 8

1999 .468 42 3 >> WARNING: Ring is not usually narrow

2000 -.184 42 4 >> WARNING: Ring is not usually narrow

2001 -.209 42 9 >> WARNING: Ring is not usually narrow

2002 -.042 42 11 >> WARNING: Ring is not usually narrow

2003 -.883 42 18

2004 .064 42 16 >> WARNING: Ring is not usually narrow

2005 1.061 42 18 >> WARNING: Ring is not usually narrow

2006 .011 42 28 >> WARNING: Ring is not usually narrow

>> WARNING: Last ring in series is ABSENT

9A Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1908 123 215

1910 224 339 240 279 334 346 273 307 292 264

1920 399 325 265 224 299 295 261 311 225 199

1930 188 215 127 106 180 211 56 138 169 136

1940 143 42 72 131 79 0 74 73 111 85

1950 80 79 82 71 93 117 107 51 69 90

1960 125 165 120 129 112 141 153 190 155 131

1970 144 101 110 72 57 76 53 190 167 52

1980 15 67 93 49 57 22 60 57 87 62

1990 52 62 37 42 54 8 22 18 18 0

2000 0 0 0 0 0 0 0

====================================================================================================================================

9B 1910 to 2006 97 years Series 18

[A] Segment High -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 +0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10

--------- ---- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

1977 2006 0 .26 -.14 -.01 .00 -.04 .37 .12 -.05 -.10 .18 .39\* - - - - - - - - - -

[B] Entire series, effect on correlation ( .628) is:

Lower 1992> -.020 1999< -.017 1993> -.014 1929> -.012 1985> -.011 2006> -.009 Higher 1945 .037 1936 .031

1977 to 2006 segment:

Lower 1992> -.068 1999< -.051 1993> -.036 1985> -.031 2006> -.031 1988< -.027 Higher 1980 .140 1981 .118

[D] 9 Absent rings: Year Master N series Absent

1945 -2.557 42 8

1999 .468 42 3 >> WARNING: Ring is not usually narrow

2000 -.184 42 4 >> WARNING: Ring is not usually narrow

2001 -.209 42 9 >> WARNING: Ring is not usually narrow

2002 -.042 42 11 >> WARNING: Ring is not usually narrow

2003 -.883 42 18

2004 .064 42 16 >> WARNING: Ring is not usually narrow

2005 1.061 42 18 >> WARNING: Ring is not usually narrow

2006 .011 42 28 >> WARNING: Ring is not usually narrow

>> WARNING: Last ring in series is ABSENT

[E] Outliers 1 3.0 SD above or -4.5 SD below mean for year

1993 +3.0 SD

9B Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1910 228 310 208 229 280 249 261 238 326 245

1920 360 306 171 210 286 268 246 270 180 203

1930 165 188 140 102 155 177 74 122 138 119

1940 96 54 51 101 76 0 38 72 74 57

1950 76 79 149 53 126 121 80 48 74 86

1960 97 87 79 94 102 104 118 88 88 112

1970 115 92 68 53 69 69 68 101 79 71

1980 32 19 71 47 31 46 41 58 42 53

1990 42 26 66 87 36 19 31 20 18 0

2000 0 0 0 0 0 0 0

====================================================================================================================================

9xA 1941 to 2006 66 years Series 19

[B] Entire series, effect on correlation ( .596) is:

Lower 1946> -.020 1971< -.020 1959< -.017 1989< -.017 2003> -.017 1975> -.014 Higher 1985 .020 1981 .016

[D] 3 Absent rings: Year Master N series Absent

2001 -.209 42 9 >> WARNING: Ring is not usually narrow

2002 -.042 42 11 >> WARNING: Ring is not usually narrow

2006 .011 42 28 >> WARNING: Ring is not usually narrow

>> WARNING: Last ring in series is ABSENT

9xA Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1941 169 194 233 222 157 363 403 342 333

1950 341 336 310 225 199 189 170 110 74 79

1960 142 163 141 231 137 151 155 176 119 146

1970 119 68 93 88 127 170 111 175 161 109

1980 61 35 88 101 54 14 38 53 77 35

1990 39 50 30 17 41 31 26 48 48 36

2000 13 0 0 9 17 27 0

====================================================================================================================================

9xB 1928 to 2006 79 years Series 20

[B] Entire series, effect on correlation ( .586) is:

Lower 1936> -.059 1942< -.028 1993< -.021 1948> -.014 1970< -.012 1990< -.010 Higher 1957 .028 1932 .021

[D] 1 Absent rings: Year Master N series Absent

2006 .011 42 28 >> WARNING: Ring is not usually narrow

>> WARNING: Last ring in series is ABSENT

9xB Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1928 261 154

1930 157 148 62 87 222 204 138 153 203 227

1940 172 97 74 164 177 106 118 198 199 179

1950 163 200 250 180 182 137 173 107 123 174

1960 125 169 100 196 134 118 150 144 99 111

1970 97 112 171 150 107 190 123 234 173 85

1980 67 38 140 109 112 43 69 93 125 69

1990 37 60 48 22 45 40 29 58 54 58

2000 20 24 19 10 9 22 0

====================================================================================================================================

10A 1909 to 2006 98 years Series 21

[A] Segment High -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 +0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10

--------- ---- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

1935 1964 6 .01 .14 .17 -.12 -.03 .17 .00 .15 -.47 -.28 .33| .08 -.02 -.12 .27 .21 .37\* .04 -.14 .09 -.32

1950 1979 5 -.02 -.20 -.02 .01 -.03 .24 .04 .09 -.11 -.23 .23| .10 .20 -.14 .02 .28\* .12 -.03 -.05 -.01 -.11

[B] Entire series, effect on correlation ( .520) is:

Lower 1978< -.038 1918< -.018 1957> -.012 1964> -.012 1956< -.011 1939< -.010 Higher 1932 .020 1919 .018

1935 to 1964 segment:

Lower 1956< -.042 1939< -.038 1964> -.031 1952< -.027 1948> -.021 1950< -.019 Higher 1945 .078 1936 .052

1950 to 1979 segment:

Lower 1978< -.135 1964> -.044 1956< -.038 1952< -.030 1973> -.025 1974> -.020 Higher 1967 .039 1958 .037

[D] 8 Absent rings: Year Master N series Absent

1945 -2.557 42 8

1985 -1.595 42 3

1992 -.411 42 1

2002 -.042 42 11 >> WARNING: Ring is not usually narrow

2003 -.883 42 18

2004 .064 42 16 >> WARNING: Ring is not usually narrow

2005 1.061 42 18 >> WARNING: Ring is not usually narrow

2006 .011 42 28 >> WARNING: Ring is not usually narrow

>> WARNING: Last ring in series is ABSENT

10A Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1909 418

1910 391 590 357 362 442 433 369 283 242 241

1920 354 408 312 296 248 336 211 183 191 125

1930 139 145 71 88 177 119 47 114 126 42

1940 24 15 14 64 52 0 56 127 60 65

1950 57 43 65 52 83 97 68 67 70 125

1960 99 98 94 95 111 116 121 142 74 94

1970 87 63 78 82 68 61 40 86 34 30

1980 14 10 40 23 21 0 10 18 38 29

1990 23 33 0 13 12 6 19 18 2 5

2000 3 2 0 0 0 0 0

====================================================================================================================================

10B 1910 to 2006 97 years Series 22

[A] Segment High -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 +0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10

--------- ---- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

1965 1994 0 .12 -.23 -.06 -.49 .23 .16 .33 -.37 -.17 -.05 .36\* .11 .01 -.07 .26 .02 .05 .09 -.12 .02 .02

1977 2006 -5 .00 .14 -.17 -.26 .17 .49\* .35 -.39 -.28 .06 .19| - - - - - - - - - -

[B] Entire series, effect on correlation ( .546) is:

Lower 2006> -.073 1995> -.021 1924< -.019 1992> -.011 1972< -.011 1970< -.010 Higher 1945 .044 1919 .035

1965 to 1994 segment:

Lower 1992> -.049 1972< -.037 1970< -.034 1991< -.032 1978< -.019 1989< -.018 Higher 1985 .099 1967 .056

1977 to 2006 segment:

Lower 2006> -.128 1995> -.048 1991< -.026 1992> -.025 1978< -.018 1994< -.013 Higher 1985 .117 1980 .091

[D] 8 Absent rings: Year Master N series Absent

1945 -2.557 42 8

2000 -.184 42 4 >> WARNING: Ring is not usually narrow

2001 -.209 42 9 >> WARNING: Ring is not usually narrow

2002 -.042 42 11 >> WARNING: Ring is not usually narrow

2003 -.883 42 18

2004 .064 42 16 >> WARNING: Ring is not usually narrow

2005 1.061 42 18 >> WARNING: Ring is not usually narrow

2006 .011 42 28 >> WARNING: Ring is not usually narrow

>> WARNING: Last ring in series is ABSENT

[E] Outliers 1 3.0 SD above or -4.5 SD below mean for year

2006 +6.6 SD

10B Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1910 364 534 391 375 473 443 318 320 343 188

1920 370 346 262 201 155 277 202 191 190 107

1930 162 139 63 69 170 144 37 64 67 105

1940 105 7 22 70 72 0 53 82 64 76

1950 92 78 146 73 60 106 92 62 58 68

1960 74 76 54 83 77 91 107 140 60 83

1970 51 59 35 54 39 47 35 34 30 30

1980 18 23 52 32 43 5 4 35 18 3

1990 13 4 23 10 7 30 7 7 3 3

2000 0 0 0 0 0 0 0

====================================================================================================================================

11A 1910 to 2006 97 years Series 23

[A] Segment High -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 +0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10

--------- ---- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

1950 1979 0 -.06 -.12 .02 -.38 .11 -.13 .22 -.05 -.06 .00 .42\*-.09 -.23 .07 .12 .38 -.08 .00 .02 -.07 .02

1965 1994 5 -.16 -.53 -.05 -.08 .25 -.20 .02 -.13 .01 .29 .53|-.16 -.26 .01 .31 .57\* .09 -.16 .06 -.09 .05

1977 2006 -6 -.25 -.37 -.07 .20 .45\*-.07 -.10 -.11 -.27 .45 .40| - - - - - - - - - -

[B] Entire series, effect on correlation ( .492) is:

Lower 1963< -.022 1964> -.015 1922> -.015 1985> -.013 1999< -.012 1937< -.011 Higher 1945 .024 1932 .023

1950 to 1979 segment:

Lower 1963< -.075 1964> -.068 1958> -.038 1954< -.017 1962> -.014 1950< -.010 Higher 1957 .116 1976 .046

1965 to 1994 segment:

Lower 1985> -.056 1968< -.036 1992> -.028 1975< -.018 1988< -.015 1989> -.013 Higher 1981 .050 1980 .037

1977 to 2006 segment:

Lower 1999< -.057 1985> -.050 2005< -.045 1992> -.031 1998< -.017 1995> -.016 Higher 1980 .095 1981 .085

[D] 4 Absent rings: Year Master N series Absent

2003 -.883 42 18

2004 .064 42 16 >> WARNING: Ring is not usually narrow

2005 1.061 42 18 >> WARNING: Ring is not usually narrow

2006 .011 42 28 >> WARNING: Ring is not usually narrow

>> WARNING: Last ring in series is ABSENT

[E] Outliers 1 3.0 SD above or -4.5 SD below mean for year

1929 -4.7 SD

11A Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1910 222 313 236 214 238 222 282 277 309 227

1920 325 305 315 264 266 232 246 230 218 93

1930 154 184 91 149 190 143 73 70 126 106

1940 111 95 132 166 127 65 123 234 131 112

1950 119 138 179 133 124 138 194 112 155 207

1960 163 137 154 115 223 186 191 251 69 165

1970 154 149 147 119 99 55 48 105 139 101

1980 48 45 98 120 97 82 63 62 82 127

1990 97 67 81 54 116 73 39 64 39 16

2000 43 31 35 0 0 0 0

====================================================================================================================================

11B 1910 to 2006 97 years Series 24

[A] Segment High -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 +0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10

--------- ---- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

1950 1979 3 -.30 .06 .06 -.17 .01 -.15 .17 -.15 .17 .13 .12|-.12 -.09 .44\* .31 -.09 -.29 -.11 .33 .09 -.14

1965 1994 3 -.18 .08 .01 -.18 .11 .08 .24 -.12 .01 .15 .08|-.27 -.09 .44\* .41 -.32 -.20 -.22 .37 -.02 -.02

1977 2006 -1 -.10 .21 -.11 -.14 .07 .10 .14 -.12 -.02 .24\* .09| - - - - - - - - - -

[B] Entire series, effect on correlation ( .456) is:

Lower 1977< -.152 1980> -.019 1974> -.018 1943< -.013 1991< -.011 2005< -.011 Higher 1936 .066 1945 .028

1950 to 1979 segment:

Lower 1977< -.350 1974> -.043 1959< -.014 1962> -.012 1960> -.010 1958> -.010 Higher 1957 .191 1969 .035

1965 to 1994 segment:

Lower 1977< -.323 1974> -.037 1980> -.035 1991< -.022 1989< -.007 1965< -.007 Higher 1981 .087 1969 .044

1977 to 2006 segment:

Lower 1977< -.349 1980> -.052 1991< -.021 2005< -.020 1995> -.016 1989< -.007 Higher 1981 .079 1988 .038

[C] Year-to-year changes diverging by over 4.0 std deviations:

1976 1977 -5.2 SD

[D] 4 Absent rings: Year Master N series Absent

2003 -.883 42 18

2004 .064 42 16 >> WARNING: Ring is not usually narrow

2005 1.061 42 18 >> WARNING: Ring is not usually narrow

2006 .011 42 28 >> WARNING: Ring is not usually narrow

>> WARNING: Last ring in series is ABSENT

[E] Outliers 1 3.0 SD above or -4.5 SD below mean for year

1977 -7.5 SD

11B Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1910 225 352 305 269 374 316 354 336 386 263

1920 368 337 296 236 312 302 253 231 187 114

1930 141 162 130 143 157 168 61 124 128 110

1940 102 63 95 67 136 46 82 208 149 98

1950 166 207 195 115 174 151 167 90 159 123

1960 193 235 195 171 167 159 170 226 176 244

1970 188 213 159 167 263 186 148 68 152 148

1980 138 91 153 122 131 88 121 115 133 66

1990 84 55 49 60 103 101 133 113 142 76

2000 66 47 42 0 0 0 0

====================================================================================================================================

12A 1912 to 2006 95 years Series 25

[B] Entire series, effect on correlation ( .666) is:

Lower 1943< -.017 2005< -.015 1919> -.013 1978< -.011 1945> -.011 1953> -.008 Higher 1936 .085 1957 .021

[D] 2 Absent rings: Year Master N series Absent

1936 -2.993 41 2

2006 .011 42 28 >> WARNING: Ring is not usually narrow

>> WARNING: Last ring in series is ABSENT

12A Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1912 303 326 395 328 265 250 258 236

1920 256 302 256 204 251 235 154 193 190 114

1930 124 135 72 105 161 143 0 92 106 136

1940 93 79 59 43 99 58 57 65 39 46

1950 92 73 72 83 83 76 86 43 65 94

1960 70 108 64 82 70 84 63 79 71 79

1970 103 82 95 40 72 51 48 47 39 42

1980 23 8 52 35 70 46 63 95 123 114

1990 78 100 52 88 78 85 92 75 88 63

2000 62 22 30 9 10 4 0

====================================================================================================================================

12B 1910 to 2006 97 years Series 26

[A] Segment High -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 +0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10

--------- ---- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

1950 1979 0 -.17 .03 .11 .10 -.14 .10 .25 -.03 -.05 .09 .37\*-.10 -.45 -.50 -.14 -.02 -.08 -.12 .17 .02 .08

1965 1994 0 .16 .27 .02 .11 -.03 .17 .09 -.12 -.26 -.15 .39\*-.06 -.39 -.21 -.17 .06 -.04 -.30 .01 .05 .09

[B] Entire series, effect on correlation ( .605) is:

Lower 1990< -.013 1966< -.013 1910< -.012 1981> -.011 1967< -.011 1965< -.011 Higher 1936 .102 1945 .019

1950 to 1979 segment:

Lower 1966< -.057 1967< -.053 1965< -.050 1974> -.040 1953> -.029 1963< -.027 Higher 1957 .048 1958 .034

1965 to 1994 segment:

Lower 1966< -.046 1990< -.044 1981> -.041 1965< -.040 1967< -.040 1974> -.037 Higher 1980 .080 1988 .045

[D] 2 Absent rings: Year Master N series Absent

1936 -2.993 41 2

2006 .011 42 28 >> WARNING: Ring is not usually narrow

>> WARNING: Last ring in series is ABSENT

12B Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1910 191 346 263 287 276 282 265 237 281 204

1920 216 213 195 180 180 157 140 146 207 113

1930 126 174 73 97 152 142 0 69 98 133

1940 75 75 60 47 60 22 24 42 50 48

1950 53 61 69 81 124 124 101 50 37 83

1960 69 62 42 49 41 30 28 41 41 87

1970 106 101 74 76 113 58 71 101 130 104

1980 59 76 105 67 85 66 65 84 105 63

1990 29 59 24 40 67 86 84 80 33 55

2000 20 18 21 41 75 87 0

====================================================================================================================================

13A 1913 to 2006 94 years Series 27

[B] Entire series, effect on correlation ( .646) is:

Lower 1949< -.057 1945> -.032 1992> -.013 1970< -.011 1987< -.009 1919> -.009 Higher 1936 .073 1957 .026

[D] 4 Absent rings: Year Master N series Absent

1985 -1.595 42 3

2002 -.042 42 11 >> WARNING: Ring is not usually narrow

2003 -.883 42 18

2006 .011 42 28 >> WARNING: Ring is not usually narrow

>> WARNING: Last ring in series is ABSENT

[E] Outliers 1 3.0 SD above or -4.5 SD below mean for year

1949 -4.9 SD

13A Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1913 226 265 314 291 268 236 217

1920 302 289 203 215 216 256 237 257 169 122

1930 141 173 116 139 169 177 65 159 161 162

1940 143 101 113 145 110 107 100 119 108 57

1950 89 136 145 107 124 124 127 60 80 113

1960 117 130 98 140 70 107 114 107 90 108

1970 57 56 63 41 37 68 54 42 64 36

1980 11 7 57 35 29 0 16 13 33 24

1990 30 38 34 15 29 23 20 18 19 6

2000 15 16 0 0 18 15 0

====================================================================================================================================

13B 1910 to 2006 97 years Series 28

[B] Entire series, effect on correlation ( .638) is:

Lower 1970< -.017 1981> -.013 1935< -.012 1948> -.012 1923> -.009 1919> -.008 Higher 1945 .024 1980 .016

13B Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1910 163 332 257 210 284 302 293 253 246 224

1920 281 287 260 260 235 220 244 236 181 106

1930 125 161 99 111 156 126 77 137 134 155

1940 144 79 131 154 162 4 72 121 156 156

1950 95 156 158 105 113 114 117 74 71 119

1960 83 141 121 169 84 108 122 95 89 117

1970 68 76 116 65 57 81 66 78 89 39

1980 23 63 89 70 69 31 48 60 98 65

1990 42 57 39 29 64 44 69 70 49 46

2000 40 42 25 19 33 58 41

====================================================================================================================================

14A 1914 to 2006 93 years Series 29

[A] Segment High -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 +0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10

--------- ---- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

1950 1979 0 -.40 .13 -.11 -.01 -.28 .22 .00 -.06 .03 .02 .39\*-.18 -.01 -.17 .26 .12 .29 .16 -.04 .14 -.01

1965 1994 5 -.29 -.26 -.39 -.01 -.25 .09 .05 .01 -.09 .41 .30| .04 -.05 -.15 .17 .47\* .28 .08 .03 .16 .04

1977 2006 0 .01 -.28 -.26 .00 -.08 .14 .10 -.07 -.17 .22 .38\* - - - - - - - - - -

[B] Entire series, effect on correlation ( .557) is:

Lower 1969< -.020 1941> -.019 2005< -.016 1977< -.014 1917< -.014 1968> -.013 Higher 1936 .108 1945 .013

1950 to 1979 segment:

Lower 1969< -.062 1968> -.054 1977< -.041 1958> -.031 1951< -.028 1960> -.019 Higher 1957 .060 1976 .035

1965 to 1994 segment:

Lower 1969< -.072 1977< -.050 1968> -.045 1975< -.019 1992> -.019 1989> -.017 Higher 1980 .052 1982 .046

1977 to 2006 segment:

Lower 2005< -.065 1977< -.059 1989> -.028 1992> -.024 2004< -.018 1985> -.016 Higher 2003 .060 1980 .050

[D] 4 Absent rings: Year Master N series Absent

2003 -.883 42 18

2004 .064 42 16 >> WARNING: Ring is not usually narrow

2005 1.061 42 18 >> WARNING: Ring is not usually narrow

2006 .011 42 28 >> WARNING: Ring is not usually narrow

>> WARNING: Last ring in series is ABSENT

14A Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1914 353 286 300 244 249 266

1920 410 395 325 293 359 321 332 366 385 306

1930 312 292 244 258 340 291 112 192 326 255

1940 271 276 224 324 180 107 154 229 158 140

1950 142 122 179 138 163 210 167 112 141 190

1960 191 216 119 184 148 135 120 150 183 98

1970 135 113 106 83 43 10 16 29 52 80

1980 49 33 107 90 42 43 44 52 78 128

1990 100 83 74 64 55 44 83 68 58 32

2000 25 26 15 0 0 0 0

====================================================================================================================================

14B 1913 to 2006 94 years Series 30

[A] Segment High -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 +0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10

--------- ---- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

1950 1979 0 -.14 .12 .22 .11 -.22 .20 .03 .04 -.11 -.15 .38\*-.16 -.03 -.21 .35 -.14 .05 .14 -.16 .01 -.31

[B] Entire series, effect on correlation ( .622) is:

Lower 1953< -.017 1976> -.014 1935< -.013 1973> -.012 1967< -.012 1941> -.010 Higher 1936 .048 1980 .029

1950 to 1979 segment:

Lower 1976> -.050 1973> -.045 1967< -.041 1978< -.031 1975> -.028 1950< -.021 Higher 1957 .050 1963 .036

[D] 4 Absent rings: Year Master N series Absent

2003 -.883 42 18

2004 .064 42 16 >> WARNING: Ring is not usually narrow

2005 1.061 42 18 >> WARNING: Ring is not usually narrow

2006 .011 42 28 >> WARNING: Ring is not usually narrow

>> WARNING: Last ring in series is ABSENT

14B Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1913 421 432 358 383 392 443 330

1920 370 369 349 327 479 525 478 495 454 341

1930 407 431 296 289 438 325 191 286 353 317

1940 308 294 304 368 311 214 225 288 162 186

1950 172 195 204 129 167 223 197 155 139 193

1960 161 175 158 226 162 173 184 148 160 180

1970 187 153 168 190 103 160 156 116 81 85

1980 16 11 64 69 42 39 36 37 58 71

1990 75 63 65 74 60 65 76 78 58 41

2000 36 22 9 0 0 0 0

====================================================================================================================================

15A 1911 to 2006 96 years Series 31

[B] Entire series, effect on correlation ( .540) is:

Lower 1964< -.041 1943< -.014 1916< -.013 1938< -.012 1912> -.010 1984> -.009 Higher 1919 .040 1957 .023

[D] 10 Absent rings: Year Master N series Absent

1938 .594 41 1 >> WARNING: Ring is not usually narrow

1939 .838 41 1 >> WARNING: Ring is not usually narrow

1941 -1.228 42 1

1964 -.199 42 1 >> WARNING: Ring is not usually narrow

2001 -.209 42 9 >> WARNING: Ring is not usually narrow

2002 -.042 42 11 >> WARNING: Ring is not usually narrow

2003 -.883 42 18

2004 .064 42 16 >> WARNING: Ring is not usually narrow

2005 1.061 42 18 >> WARNING: Ring is not usually narrow

2006 .011 42 28 >> WARNING: Ring is not usually narrow

>> WARNING: Last ring in series is ABSENT

[E] Outliers 1 3.0 SD above or -4.5 SD below mean for year

1964 -5.5 SD

15A Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1911 235 221 216 221 216 156 171 174 102

1920 183 173 128 124 142 157 158 175 157 119

1930 98 101 50 84 112 111 18 62 0 0

1940 84 0 68 8 18 10 34 81 55 64

1950 114 113 66 67 76 81 74 26 52 50

1960 62 108 82 68 0 71 81 94 100 84

1970 98 92 69 52 40 23 22 49 54 25

1980 20 8 50 44 93 24 32 38 67 41

1990 40 56 53 48 54 55 44 40 107 34

2000 10 0 0 0 0 0 0

====================================================================================================================================

15B 1909 to 2006 98 years Series 32

[B] Entire series, effect on correlation ( .663) is:

Lower 1999< -.025 2006> -.023 1912> -.021 1982< -.019 1980> -.014 1998< -.011 Higher 1936 .067 1945 .033

[D] 5 Absent rings: Year Master N series Absent

1945 -2.557 42 8

1999 .468 42 3 >> WARNING: Ring is not usually narrow

2004 .064 42 16 >> WARNING: Ring is not usually narrow

2005 1.061 42 18 >> WARNING: Ring is not usually narrow

2006 .011 42 28 >> WARNING: Ring is not usually narrow

>> WARNING: Last ring in series is ABSENT

15B Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1909 121

1910 158 232 214 181 183 198 166 170 162 99

1920 199 144 103 144 173 196 175 205 181 154

1930 143 173 93 109 134 174 40 111 122 83

1940 104 62 124 80 72 0 77 140 94 64

1950 122 127 144 101 124 94 75 39 48 95

1960 78 86 103 83 58 95 92 104 92 104

1970 109 82 70 65 34 59 36 75 86 57

1980 40 13 14 23 53 31 46 37 92 53

1990 32 64 40 44 41 35 16 24 9 0

2000 14 7 9 2 0 0 0

====================================================================================================================================

16A 1913 to 2006 94 years Series 33

[A] Segment High -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 +0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10

--------- ---- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

1935 1964 0 -.12 -.09 .05 .22 -.05 -.12 .34 -.22 -.12 -.06 .35\*-.15 -.14 -.19 .31 .01 .01 -.15 .10 .17 -.14

1950 1979 0 -.37 -.18 -.07 .35 .01 -.11 .05 -.10 .13 -.06 .41\*-.12 -.01 -.18 .21 -.18 .00 .00 -.02 .11 .01

1965 1994 0 -.36 -.13 .12 -.03 -.07 -.03 -.02 -.21 -.24 .08 .36\* .10 -.03 .06 .13 .20 -.03 .08 .06 -.14 -.04

1977 2006 -8 -.03 .15 .24\*-.03 .05 .09 -.08 -.16 -.31 -.01 .22| - - - - - - - - - -

[B] Entire series, effect on correlation ( .493) is:

Lower 1964< -.046 1957> -.029 1940< -.027 2005< -.022 1985> -.020 1948> -.014 Higher 1945 .058 1919 .035

1935 to 1964 segment:

Lower 1964< -.089 1957> -.066 1940< -.050 1948> -.027 1941> -.007 1960> -.006 Higher 1945 .123 1963 .017

1950 to 1979 segment:

Lower 1957> -.146 1964< -.136 1978< -.018 1960> -.015 1977< -.006 1965< -.005 Higher 1967 .030 1963 .023

1965 to 1994 segment:

Lower 1985> -.094 1988< -.056 1983> -.045 1991< -.044 1986> -.027 1978< -.027 Higher 1980 .083 1981 .070

1977 to 2006 segment:

Lower 2005< -.096 1985> -.070 1988< -.043 2003> -.037 1991< -.035 1983> -.024 Higher 1980 .119 1981 .089

[D] 3 Absent rings: Year Master N series Absent

1945 -2.557 42 8

2005 1.061 42 18 >> WARNING: Ring is not usually narrow

2006 .011 42 28 >> WARNING: Ring is not usually narrow

>> WARNING: Last ring in series is ABSENT

[E] Outliers 1 3.0 SD above or -4.5 SD below mean for year

1964 -4.9 SD

16A Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1913 210 243 307 210 225 202 134

1920 222 187 156 160 194 200 176 194 170 126

1930 150 143 66 67 125 141 45 62 75 73

1940 4 35 23 69 66 0 45 53 82 59

1950 94 72 89 60 68 88 77 73 54 67

1960 80 80 64 93 19 45 60 97 56 71

1970 82 54 53 31 25 24 20 29 24 20

1980 9 4 33 81 55 55 75 70 27 22

1990 27 12 3 19 25 10 22 51 42 43

2000 42 24 39 33 27 0 0

====================================================================================================================================

16B 1909 to 2006 98 years Series 34

[A] Segment High -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 +0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10

--------- ---- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

1920 1949 -10 .43\*-.08 -.30 .00 -.10 .30 .03 .12 -.16 .12 .37| .06 -.14 -.03 .20 .13 -.16 .03 -.15 -.05 -.03

1935 1964 0 .02 -.15 -.05 .25 -.20 .21 .11 -.10 -.12 -.05 .37\*-.12 .00 -.28 .36 .04 -.16 .09 -.18 .07 -.06

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

1965 1994 0 .21 -.16 -.10 -.17 -.08 .13 .10 -.18 -.23 .00 .41\* .05 -.46 -.02 .20 .30 -.18 -.06 -.17 .02 -.14

[B] Entire series, effect on correlation ( .272) is:

Lower 1988< -.043 1945> -.037 1937< -.022 1940< -.020 1912> -.014 2005< -.013 Higher 1919 .042 1936 .017

1920 to 1949 segment:

Lower 1945> -.095 1937< -.060 1940< -.054 1948> -.024 1929> -.019 1935< -.016 Higher 1936 .063 1920 .030

1935 to 1964 segment:

Lower 1945> -.090 1937< -.059 1940< -.054 1948> -.021 1935< -.015 1943< -.011 Higher 1936 .044 1963 .031

1965 to 1994 segment:

Lower 1988< -.170 1969< -.028 1979> -.022 1990< -.017 1973> -.012 1983> -.008 Higher 1980 .068 1976 .040

[D] 8 Absent rings: Year Master N series Absent

1937 -.608 41 1

1940 .158 41 1 >> WARNING: Ring is not usually narrow

1988 1.340 42 2 >> WARNING: Ring is not usually narrow

1989 .509 42 1 >> WARNING: Ring is not usually narrow

1990 .106 42 1 >> WARNING: Ring is not usually narrow

1995 -.217 42 1 >> WARNING: Ring is not usually narrow

2005 1.061 42 18 >> WARNING: Ring is not usually narrow

2006 .011 42 28 >> WARNING: Ring is not usually narrow

>> WARNING: Last ring in series is ABSENT

[E] Outliers 2 3.0 SD above or -4.5 SD below mean for year

1940 -4.6 SD; 1945 +3.2 SD

16B Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1909 180

1910 271 268 249 203 224 273 214 225 221 140

1920 202 188 150 159 149 197 165 192 187 138

1930 151 108 57 58 109 65 27 0 87 72

1940 0 12 50 46 56 82 29 64 92 86

1950 70 89 84 50 100 119 106 65 65 112

1960 77 78 73 106 44 86 100 62 28 37

1970 48 56 42 40 37 32 15 47 38 50

1980 12 8 18 25 6 6 10 23 0 0

1990 0 12 4 14 17 0 28 47 26 32

2000 31 15 21 32 25 0 0

====================================================================================================================================

17A 1907 to 2006 100 years Series 35

[A] Segment High -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 +0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10

--------- ---- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

1965 1994 0 -.03 .08 .18 -.11 .03 .05 -.24 -.11 -.15 -.08 .21\*-.20 -.10 .04 .08 -.07 .10 -.07 -.11 -.17 .15

1977 2006 -9 .21 .31\* .25 .13 .00 -.05 -.08 .03 -.25 .16 .13| - - - - - - - - - -

[B] Entire series, effect on correlation ( .435) is:

Lower 1908> -.032 1933< -.028 1980> -.025 1985> -.024 1970< -.020 1988< -.012 Higher 1945 .035 1936 .031

1965 to 1994 segment:

Lower 1980> -.114 1985> -.111 1970< -.058 1988< -.034 1989< -.021 1990< -.021 Higher 1981 .080 1982 .041

1977 to 2006 segment:

Lower 1985> -.095 1980> -.087 1988< -.038 1989< -.022 1990< -.021 2004< -.021 Higher 1981 .098 1982 .043

[E] Outliers 1 3.0 SD above or -4.5 SD below mean for year

1933 -4.6 SD

17A Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1907 119 290 241

1910 221 271 191 169 195 166 184 179 157 140

1920 220 168 123 133 121 126 128 159 172 122

1930 156 154 110 2 234 243 38 92 169 179

1940 156 144 175 222 207 50 126 165 109 162

1950 129 153 203 139 148 137 106 84 99 205

1960 201 260 118 202 235 180 190 180 124 168

1970 90 124 151 68 93 120 75 99 121 73

1980 79 52 89 70 68 72 48 43 39 28

1990 26 50 35 26 51 39 37 59 105 100

2000 86 81 25 65 43 140 83

====================================================================================================================================

17B 1908 to 2006 99 years Series 36

[B] Entire series, effect on correlation ( .620) is:

Lower 1908> -.029 1915< -.022 1996< -.019 1924< -.014 1972< -.013 1932> -.013 Higher 1936 .059 1957 .029

17B Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1908 268 201

1910 244 304 204 171 173 141 181 200 172 143

1920 225 173 135 134 141 173 167 173 230 130

1930 163 203 183 194 292 275 62 133 177 214

1940 169 147 165 205 218 108 106 271 198 244

1950 222 207 269 188 223 156 196 107 94 187

1960 145 176 96 127 166 127 157 148 148 170

1970 208 174 59 120 121 87 84 123 109 72

1980 35 38 97 88 74 60 48 54 91 79

1990 68 60 43 39 69 53 31 65 86 59

2000 45 45 70 59 70 113 84

====================================================================================================================================

18A 1910 to 2006 97 years Series 37

[B] Entire series, effect on correlation ( .627) is:

Lower 1912< -.031 1932> -.021 1988< -.009 1921< -.008 1965< -.007 1960> -.007 Higher 1945 .032 1936 .025

[D] 7 Absent rings: Year Master N series Absent

1980 -2.375 42 1

2001 -.209 42 9 >> WARNING: Ring is not usually narrow

2002 -.042 42 11 >> WARNING: Ring is not usually narrow

2003 -.883 42 18

2004 .064 42 16 >> WARNING: Ring is not usually narrow

2005 1.061 42 18 >> WARNING: Ring is not usually narrow

2006 .011 42 28 >> WARNING: Ring is not usually narrow

>> WARNING: Last ring in series is ABSENT

18A Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1910 525 489 222 449 484 513 523 473 423 307

1920 452 357 359 308 351 357 283 318 305 210

1930 291 352 315 217 312 306 157 203 291 259

1940 220 195 215 284 270 101 142 185 193 236

1950 237 231 280 199 214 248 210 151 126 188

1960 243 229 168 185 127 118 135 148 152 202

1970 158 129 132 104 67 78 60 112 94 31

1980 0 7 58 78 51 23 46 33 25 42

1990 32 36 21 21 37 23 24 44 17 23

2000 8 0 0 0 0 0 0

====================================================================================================================================

18B 1913 to 2006 94 years Series 38

[A] Segment High -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 +0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10

--------- ---- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

1965 1994 -4 -.22 -.13 .05 .01 .27 .16 .34\* .23 .11 -.06 .12| .17 -.23 -.28 .04 .06 .15 .03 -.22 -.13 -.10

1977 2006 -4 -.05 -.10 .08 .05 .27 .20 .30\* .13 -.01 -.43 .05| - - - - - - - - - -

[B] Entire series, effect on correlation ( .421) is:

Lower 1981> -.044 1913< -.041 1922> -.014 1991< -.013 1988< -.011 1944< -.010 Higher 1936 .036 1957 .015

1965 to 1994 segment:

Lower 1981> -.169 1991< -.048 1988< -.038 1968> -.026 1973> -.018 1977< -.018 Higher 1985 .085 1976 .048

1977 to 2006 segment:

Lower 1981> -.170 1991< -.042 1988< -.030 1998< -.017 2006> -.016 1977< -.013 Higher 1985 .081 2005 .043

[D] 5 Absent rings: Year Master N series Absent

2002 -.042 42 11 >> WARNING: Ring is not usually narrow

2003 -.883 42 18

2004 .064 42 16 >> WARNING: Ring is not usually narrow

2005 1.061 42 18 >> WARNING: Ring is not usually narrow

2006 .011 42 28 >> WARNING: Ring is not usually narrow

>> WARNING: Last ring in series is ABSENT

[E] Outliers 1 3.0 SD above or -4.5 SD below mean for year

1981 +4.0 SD

18B Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1913 210 301 365 379 424 422 335

1920 461 432 450 347 393 372 375 393 361 270

1930 333 356 310 258 325 326 213 245 286 234

1940 210 205 174 293 167 147 149 186 133 181

1950 176 195 237 186 213 226 249 151 129 192

1960 200 169 153 197 150 141 173 202 212 182

1970 193 198 199 150 90 86 70 92 131 90

1980 66 163 130 63 24 3 7 5 21 4

1990 29 10 16 50 25 14 35 15 6 5

2000 6 25 0 0 0 0 0

====================================================================================================================================

19A 1912 to 2006 95 years Series 39

[B] Entire series, effect on correlation ( .668) is:

Lower 1957> -.020 1971< -.020 1999< -.012 1969< -.010 1922> -.009 1974> -.008 Higher 1980 .025 1945 .025

[D] 1 Absent rings: Year Master N series Absent

2003 -.883 42 18

19A Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1912 187 195 202 235 180 153 164 123

1920 224 193 205 153 200 217 180 170 130 120

1930 125 120 63 74 93 143 41 33 45 46

1940 39 33 65 110 67 17 44 86 37 76

1950 101 68 122 84 122 102 100 71 56 74

1960 67 89 52 68 68 69 78 86 74 60

1970 69 40 87 79 94 60 56 88 126 58

1980 19 15 49 49 48 33 49 75 79 84

1990 44 61 59 60 108 52 55 91 120 31

2000 73 50 100 0 12 20 15

====================================================================================================================================

19B 1913 to 2006 94 years Series 40

[B] Entire series, effect on correlation ( .641) is:

Lower 1985> -.019 1958> -.012 1920< -.010 1981< -.010 2000> -.010 1957> -.009 Higher 1936 .036 1919 .027

[D] 1 Absent rings: Year Master N series Absent

2003 -.883 42 18

[E] Outliers 1 3.0 SD above or -4.5 SD below mean for year

1981 -5.2 SD

19B Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1913 170 181 186 187 174 159 92

1920 131 159 173 148 179 240 151 174 118 103

1930 106 105 88 82 104 150 42 45 63 67

1940 65 31 54 98 90 30 32 71 61 62

1950 89 100 101 68 100 96 94 65 84 91

1960 60 74 76 86 58 60 72 115 78 78

1970 67 70 96 65 71 61 59 90 79 56

1980 37 14 64 49 55 71 96 84 78 73

1990 71 54 49 71 78 43 43 59 71 40

2000 94 87 79 0 9 21 5

====================================================================================================================================

20A 1911 to 2006 96 years Series 41

[A] Segment High -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 +0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10

--------- ---- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

1920 1949 -4 .05 .17 .22 -.04 -.31 -.18 .62\*-.06 -.25 -.07 .59| .08 -.18 .10 .02 .14 -.11 -.25 -.01 .08 -.24

1935 1964 -4 .01 .12 .30 -.19 -.35 -.07 .54\*-.04 -.31 .07 .47| .13 -.01 -.10 .04 .24 -.25 -.40 .03 .07 -.35

1950 1979 0 -.14 -.09 -.19 -.25 -.36 .11 -.12 .01 -.09 .10 .40\* .21 .05 -.04 -.02 .13 -.23 -.22 .06 .11 .04

[B] Entire series, effect on correlation ( .602) is:

Lower 1940< -.030 1957> -.024 1964> -.017 2006< -.014 1963< -.012 1982< -.011 Higher 1919 .033 1945 .028

1920 to 1949 segment:

Lower 1940< -.108 1921< -.025 1941> -.022 1922> -.016 1944< -.016 1936> -.008 Higher 1945 .085 1920 .031

1935 to 1964 segment:

Lower 1940< -.112 1964> -.043 1957> -.042 1963< -.034 1944< -.019 1941> -.016 Higher 1945 .111 1936 .041

1950 to 1979 segment:

Lower 1963< -.089 1964> -.088 1957> -.029 1971< -.018 1974> -.012 1956< -.009 Higher 1962 .038 1969 .033

[D] 1 Absent rings: Year Master N series Absent

2006 .011 42 28 >> WARNING: Ring is not usually narrow

>> WARNING: Last ring in series is ABSENT

20A Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1911 237 201 230 233 237 210 242 254 148

1920 278 183 219 180 216 295 193 184 198 151

1930 148 152 114 83 137 173 73 107 126 114

1940 24 66 58 87 36 12 24 61 62 64

1950 93 115 106 84 103 93 91 89 87 98

1960 99 101 88 88 130 122 130 118 107 133

1970 123 81 90 67 94 72 76 99 92 89

1980 42 43 46 57 46 24 72 93 91 57

1990 59 64 62 81 88 50 49 78 84 70

2000 74 61 49 18 35 43 0

====================================================================================================================================

20B 1908 to 2006 99 years Series 42

[A] Segment High -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 +0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10

--------- ---- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

1950 1979 2 -.31 -.27 -.21 -.31 -.11 .05 .05 .21 .17 .12 .23| .29 .36\* .06 -.01 -.17 .15 -.13 .09 -.19 -.30

[B] Entire series, effect on correlation ( .538) is:

Lower 1908< -.032 1927< -.029 1977< -.021 1957> -.019 1940< -.014 1956< -.012 Higher 1936 .054 1945 .044

1950 to 1979 segment:

Lower 1977< -.103 1956< -.055 1978< -.052 1964> -.038 1963< -.027 1957> -.019 Higher 1962 .052 1969 .044

[D] 2 Absent rings: Year Master N series Absent

1945 -2.557 42 8

2006 .011 42 28 >> WARNING: Ring is not usually narrow

>> WARNING: Last ring in series is ABSENT

[E] Outliers 1 3.0 SD above or -4.5 SD below mean for year

1908 -4.6 SD

20B Ring measurements

Annual values

Date 0 1 2 3 4 5 6 7 8 9

1908 50 195

1910 186 204 164 207 189 239 222 234 256 172

1920 311 220 227 175 187 216 168 121 147 139

1930 149 144 114 93 136 188 57 89 107 121

1940 38 57 58 86 30 0 25 55 43 48

1950 83 72 75 63 86 85 56 63 65 62

1960 70 82 59 70 105 111 119 140 115 150

1970 138 127 110 61 56 59 68 28 29 30

1980 22 25 68 48 47 13 71 83 87 50

1990 35 48 36 45 57 39 44 57 73 54

2000 58 53 36 3 8 2 0

====================================================================================================================================

PART 7: DESCRIPTIVE STATISTICS: Mount Hunger-Waterbury-Mid Corr6-30 13:14 Mon 05 Mar 2007 Page 6

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Corr //-------- Unfiltered --------\\ //---- Filtered -----\\

No. No. No. with Mean Max Std Auto Mean Max Std Auto AR

Seq Series Interval Years Segmt Flags Master msmt msmt dev corr sens value dev corr ()

--- -------- --------- ----- ----- ----- ------ ----- ----- ----- ----- ----- ----- ----- ----- --

1 1A 1907 2006 100 6 2 .596 1.16 2.78 .615 .804 .351 2.50 .507 -.038 2

2 1b 1906 2006 101 6 1 .481 1.00 3.01 .608 .786 .397 2.76 .594 -.019 2

3 2A 1912 2006 95 6 1 .524 1.17 2.56 .511 .751 .254 2.60 .408 -.076 2

4 2B 1912 2006 95 6 1 .534 1.16 2.51 .505 .753 .248 2.53 .397 -.060 3

5 3A 1910 2006 97 6 0 .608 1.07 3.21 .894 .915 .360 2.65 .450 -.003 1

6 3B 1908 2006 99 6 1 .621 1.05 3.10 .844 .853 .437 2.92 .512 .017 1

7 4A 1910 2006 97 6 1 .430 .89 2.66 .580 .759 .420 2.37 .289 -.029 2

8 4B 1911 2006 96 6 2 .463 .90 2.47 .522 .712 .378 2.36 .319 -.052 2

9 5A 1911 2006 96 6 1 .491 1.25 3.05 .822 .922 .264 2.58 .508 .004 1

10 5B 1917 2006 90 6 1 .503 1.18 2.89 .713 .895 .215 2.53 .414 -.024 2

11 6A 1915 2006 92 6 0 .554 1.18 2.37 .545 .743 .333 2.63 .518 .006 2

12 6B 1917 2006 90 6 0 .614 1.06 2.32 .552 .783 .303 2.62 .495 .047 2

13 7A 1910 2006 97 6 2 .460 1.38 2.42 .528 .617 .290 2.54 .453 -.025 1

14 7B 1908 2006 99 6 1 .671 1.42 2.93 .525 .680 .278 2.73 .473 -.007 2

15 8A 1911 2006 96 6 0 .636 1.43 2.97 .705 .737 .276 2.71 .524 -.006 2

16 8B 1913 2006 94 6 4 .366 1.37 3.75 .670 .678 .339 2.65 .502 -.017 2

17 9A 1908 2006 99 6 0 .705 1.27 3.99 .980 .874 .366 2.63 .465 -.033 2

18 9B 1910 2006 97 6 1 .628 1.08 3.60 .872 .885 .336 2.63 .398 .006 2

19 9xA 1941 2006 66 4 0 .596 1.25 4.03 1.010 .902 .416 2.63 .502 .104 1

20 9xB 1928 2006 79 5 0 .586 1.19 2.61 .645 .691 .379 2.71 .604 .030 1

21 10A 1909 2006 98 6 2 .520 1.13 5.90 1.271 .920 .461 2.87 .654 .002 2

22 10B 1910 2006 97 6 2 .546 1.04 5.34 1.201 .903 .464 3.97 .534 -.058 1

23 11A 1910 2006 97 6 3 .492 1.39 3.25 .802 .806 .322 2.69 .464 -.019 2

24 11B 1910 2006 97 6 3 .456 1.61 3.86 .899 .832 .297 2.58 .366 -.029 1

25 12A 1912 2006 95 6 0 .666 1.05 3.95 .822 .904 .360 2.48 .338 -.035 1

26 12B 1910 2006 97 6 2 .605 1.00 3.46 .732 .854 .348 2.42 .344 -.033 1

27 13A 1913 2006 94 6 0 .646 1.05 3.14 .820 .917 .385 2.47 .453 -.031 2

28 13B 1910 2006 97 6 0 .638 1.21 3.32 .768 .850 .321 2.54 .376 .005 2

29 14A 1914 2006 93 6 3 .557 1.62 4.10 1.121 .894 .293 2.53 .385 .055 2

30 14B 1913 2006 94 6 1 .622 2.02 5.25 1.419 .932 .233 2.57 .435 .058 1

31 15A 1911 2006 96 6 0 .540 .75 2.35 .586 .821 .468 2.77 .396 -.040 1

32 15B 1909 2006 98 6 0 .663 .90 2.32 .588 .811 .431 2.77 .442 -.011 1

33 16A 1913 2006 94 6 4 .493 .78 3.07 .655 .876 .440 2.53 .396 -.032 1

34 16B 1909 2006 98 6 3 .272 .80 2.73 .730 .907 .509 2.58 .541 -.001 2

35 17A 1907 2006 100 6 2 .435 1.28 2.90 .640 .593 .350 2.57 .434 -.021 2

36 17B 1908 2006 99 6 0 .620 1.41 3.04 .672 .703 .281 2.63 .527 -.019 2

37 18A 1910 2006 97 6 0 .627 1.84 5.25 1.433 .907 .328 2.63 .383 -.026 2

38 18B 1913 2006 94 6 2 .421 1.78 4.61 1.305 .938 .337 2.53 .430 .025 2

39 19A 1912 2006 95 6 0 .668 .88 2.35 .540 .780 .377 2.75 .604 .035 1

40 19B 1913 2006 94 6 0 .641 .85 2.40 .451 .783 .314 2.58 .409 .007 2

41 20A 1911 2006 96 6 3 .602 1.07 2.95 .641 .840 .283 2.62 .466 -.038 1

42 20B 1908 2006 99 6 1 .538 .96 3.11 .670 .845 .365 2.73 .428 -.022 1

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Total or mean: 3994 249 50 .555 1.19 5.90 .770 .818 .348 3.97 .455 -.011

- = [ COFECHA MHW\_MCOF ] = -