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Boreal temperature variability inferred from latewood maximum density and historical plant phenology records

Supplementary Items

Content:

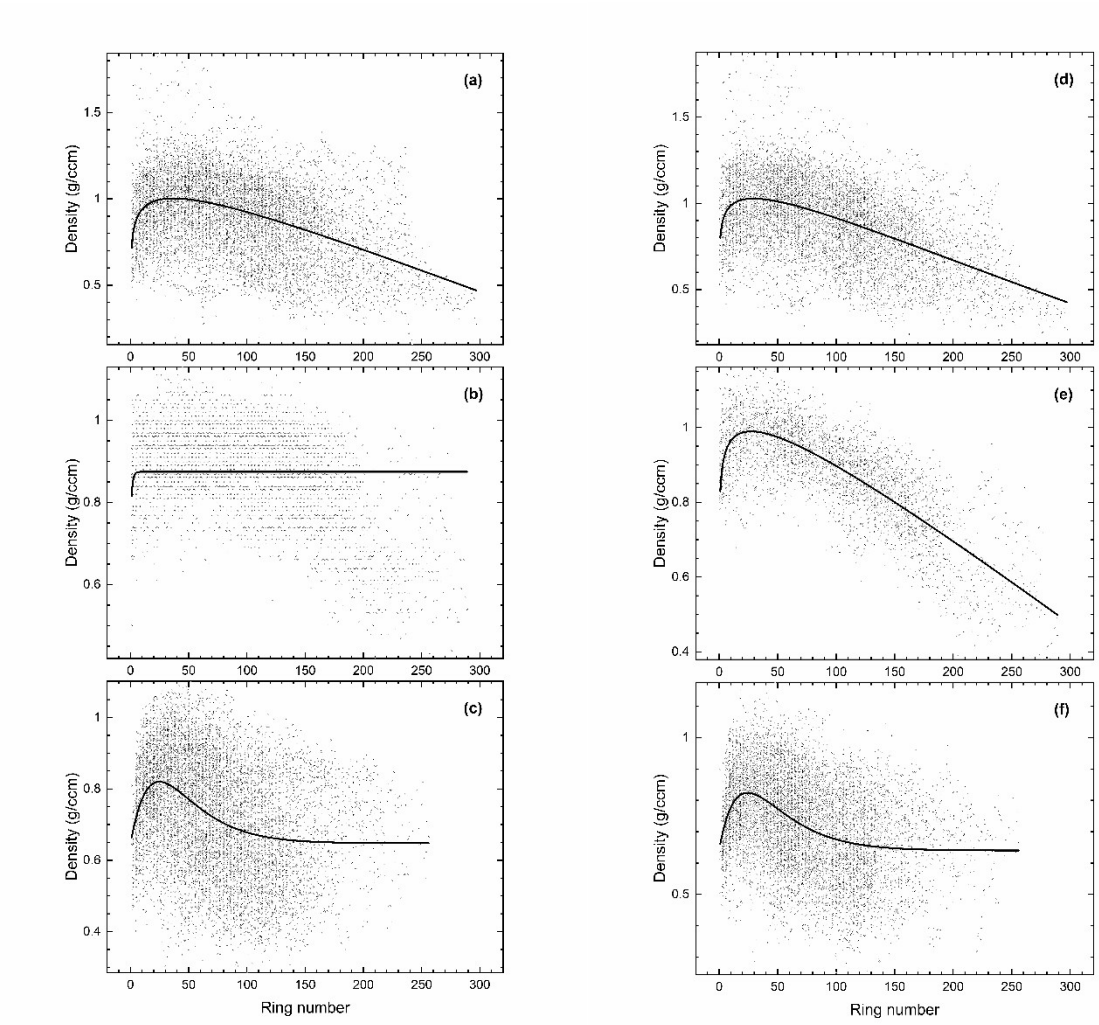

Fig. S1. Age-related change in maximum latewood density data as a function of ring number modelled using the 'Hugershoff' equation fitted to a cloud of density observations, separately for GUN (a, d), SCH (b, e) and PEL (c, f) subsets of the data before (a–c) and after (d–f) signal-free implementation.

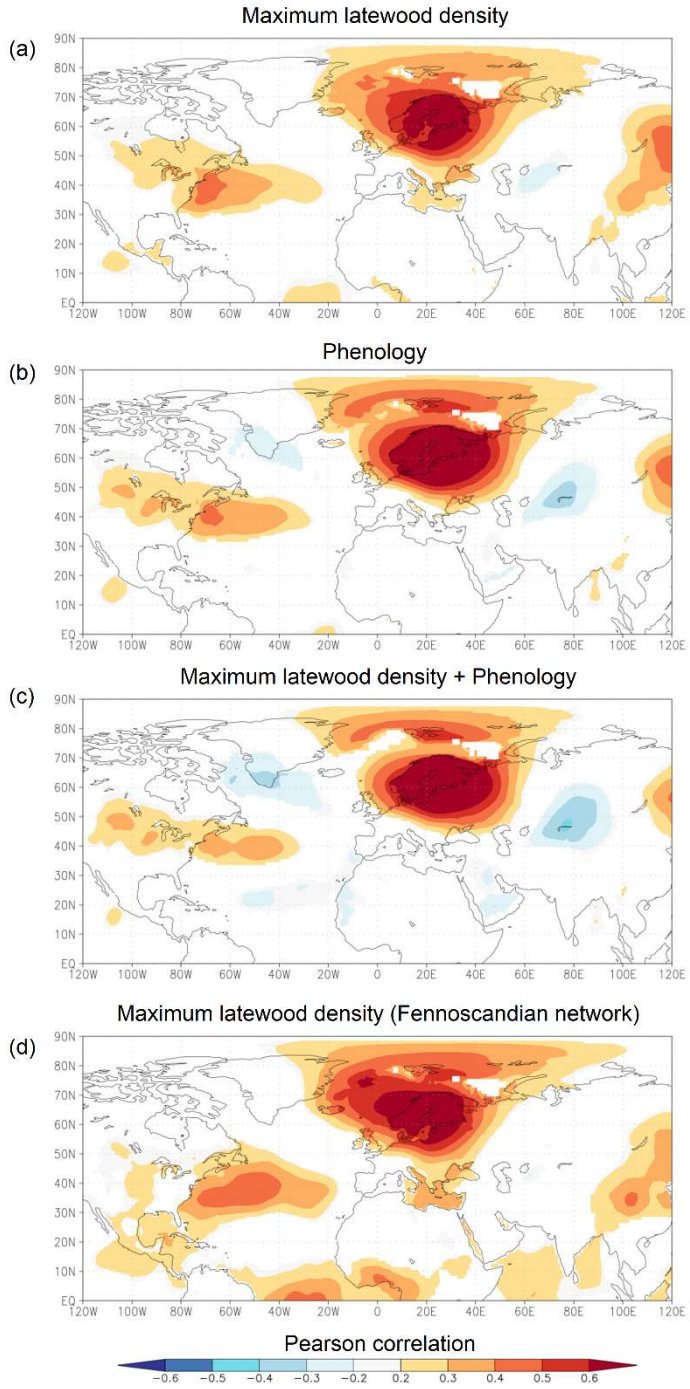

Fig. S2. Spatial correlations. Pearson correlations were calculated between the April–August temperatures of the Berkeley data and temperature reconstructions analysed in this study. Reconstructions are based on the RCS indices of maximum latewood density (a), phenological z scores (b), using both the RCS and phenology data (c), and the first principal component of the tree-ring records from Fennoscandia (Wilson et al. 2016) (d). All correlations were produced at the https://climexp.knmi.nl/ (Trouet, V. & van Oldenborgh, G. J. 2013: *Tree-Ring Research* **69**, 3–13) using unfiltered series over the AD 1850–1955 period.

Table S1. Site characteristics including site name, abbreviation of the site (ABBR), type of tree-ring materials (LI = living tree; SF = subfossil sample), first year (FY) and last year (LY) of the cross-dated MXD series, number of trees (N) and reference to previous publications (TH = this study; SC = Schweingruber et al. (1987, 1991); HE = Helama et al. (2008, 2010, 2012, 2014b)).

Site	ABBR	LI/SF	FY	LY	N	Ref
Forssa	FO	LI	1849	2021	14	TH
Forssa	FO	SF	1207	1878	39	TH
Pyhä-Häkki	PH	LI	1643	1978	12	SC
Pyhä-Häkki	PH	LI	1783	2021	12	TH
Petkeljärvi	PJ	LI	1779	1978	12	SC
Savonlinna	SA	LI	1851	2002	22	HE
Savonlinna	SA	LI	1862	2021	15	TH
Savonlinna	SA	SF	673	1809	92	HE

Table S2. Calibration and verification statistics for the March–August temperature reconstructions. Instrumental temperatures, obtained from the CRUTEM5 dataset, are explained over the AD 1850–1955 period by the RCS indices of maximum latewood density (a), phenological z scores (b), and multiple proxy data using both the RCS and phenology data (c), and over the AD 1850–2020 period by the RCS indices of maximum latewood density (d). The full calibration period is divided into two subperiods for cross-validation. The coefficient of determination (R^2) is calculated over the calibration period, the squared coefficient of correlation (r^2), the reduction of error (RE), and coefficient of efficiency (CE) statistics over the verification period. Monte Carlo based p values are included in the parenthesis.

(a) Dependent data	CRUTEM5 air temperature (MAMJJA)		
Independent data	Maximum Latewood Density		
Calibration period	1850-1902	1903-1955	1850-1955
Verification period	1903-1955	1850-1902	
R^2	0.675 (<0.0001)	0.400 (<0.0001)	0.562 (<0.0001)
r^2	0.353 (<0.0001)	0.632 (<0.0001)	
RE	0.511 (<0.0001)	0.610 (<0.0001)	
CE	0.325 (<0.0001)	0.481 (<0.0001)	

(b) Dependent data	CRUTEM5 air temperature (MAMJJA)		
Independent data	Phenology		
Calibration period	1850-1902	1903-1955	1850-1955
Verification period	1903-1955	1850-1902	
R^2	0.681 (<0.0001)	0.654 (<0.0001)	0.670 (<0.0001)
r^2	0.654 (<0.0001)	0.681 (<0.0001)	
RE	0.663 (<0.0001)	0.679 (<0.0001)	
CE	0.535 (<0.0001)	0.573 (<0.0001)	

(c) Dependent data	CRUTEM5 air temperature (MAMJJA)		
Independent data	Maximum Latewood Density + Phenology		
Calibration period	1850-1902	1903-1955	1850-1955
Verification period	1903-1955	1850-1902	
R^2	0.779 (<0.0001)	0.747 (<0.0001)	0.762 (<0.0001)
r^2	0.632 (<0.0001)	0.710 (<0.0001)	
RE	0.645 (<0.0001)	0.748 (<0.0001)	
CE	0.509 (<0.0001)	0.664 (<0.0001)	

(d) Dependent data	CRUTEM5 air temperature (MAMJJA)		
Independent data	Maximum Latewood Density		
Calibration period	1850-1935	1936-2020	1850-2020
Verification period	1936-2020	1850-1935	
R^2	0.580 (<0.0001)	0.487 (0.0001)	0.599 (<0.0001)
r^2	0.400 (0.0002)	0.473 (<0.0001)	
RE	0.672 (<0.0001)	0.497 (0.0001)	
CE	0.359 (<0.0001)	-0.004 (0.113)	

Table S3. Same as Table S2 but for reconstructions built using temperatures from the Berkeley dataset.

(a)

Dependent data	Berkeley Earth Surface Temperature (MAMJJA)		
Independent data	Maximum Latewood Density		
Calibration period	1850-1902	1903-1955	1850-1955
Verification period	1903-1955	1850-1902	
R^2	0.704 (<0.0001)	0.342 (=0.0002)	0.545 (<0.0001)
r^2	0.318 (<0.0001)	0.676 (<0.0001)	
RE	0.409 (<0.0001)	0.637 (<0.0001)	
CE	0.206 (=0.0002)	0.529 (<0.0001)	
R^2			

(b)

Dependent data	Berkeley Earth Surface Temperature (MAMJJA)		
Independent data	Phenology		
Calibration period	1850-1902	1903-1955	1850-1955
Verification period	1903-1955	1850-1902	
R^2	0.716 (<0.0001)	0.720 (<0.0001)	0.719 (<0.0001)
r^2	0.720 (<0.0001)	0.716 (<0.0001)	
RE	0.722 (<0.0001)	0.718 (<0.0001)	
CE	0.627 (<0.0001)	0.634 (<0.0001)	

(c)

Dependent data	Berkeley Earth Surface Temperature (MAMJJA)		
Independent data	Maximum Latewood Density + Phenology		
Calibration period	1850-1902	1903-1955	1850-1955
Verification period	1903-1955	1850-1902	
R^2	0.807 (<0.0001)	0.775 (<0.0001)	0.789 (<0.0001)
r^2	0.683 (<0.0001)	0.744 (<0.0001)	
RE	0.735 (<0.0001)	0.786 (<0.0001)	
CE	0.644 (<0.0001)	0.723 (<0.0001)	

(d)

Dependent data	Berkeley Earth Surface Temperature (MAMJJA)		
Independent data	Maximum Latewood Density		
Calibration period	1850-1935	1936-2020	1850-2020
Verification period	1936-2020	1850-1935	
R^2	0.591 (<0.0001)	0.445 (=0.0001)	0.590 (<0.0001)
r^2	0.388 (=0.0002)	0.513 (<0.0001)	
RE	0.676 (<0.0001)	0.567 (<0.0001)	
CE	0.381 (<0.0001)	0.178 (=0.0032)	

Table S4. Same as Table S2 but for reconstructions built using April–August temperatures from the CRUTEM5 dataset.

(a)

Dependent data	CRUTEM5 air temperature (AMJJA)		
Independent data	Maximum Latewood Density		
Calibration period	1850-1902	1903-1955	1850-1955
Verification period	1903-1955	1850-1902	
R^2	0.751 (<0.0001)	0.514 (<0.0001)	0.609 (<0.0001)
r^2	0.427 (<0.0001)	0.680 (<0.0001)	
RE	0.466 (<0.0001)	0.365 (0.0002)	
CE	0.346 (<0.0001)	0.242 (0.0002)	

(b)

Dependent data	CRUTEM5 air temperature (AMJJA)		
Independent data	Phenology		
Calibration period	1850-1902	1903-1955	1850-1955
Verification period	1903-1955	1850-1902	
R^2	0.695 (<0.0001)	0.651 (<0.0001)	0.681 (<0.0001)
r^2	0.651 (<0.0001)	0.695 (<0.0001)	
RE	0.682 (<0.0001)	0.712 (<0.0001)	
CE	0.611 (<0.0001)	0.656 (<0.0001)	

(c)

Dependent data	CRUTEM5 air temperature (AMJJA)		
Independent data	Maximum Latewood Density + Phenology		
Calibration period	1850-1902	1903-1955	1850-1955
Verification period	1903-1955	1850-1902	
R^2	0.833 (<0.0001)	0.813 (<0.0001)	0.794 (<0.0001)
r^2	0.645 (<0.0001)	0.738 (<0.0001)	
RE	0.688 (<0.0001)	0.562 (<0.0001)	
CE	0.618 (<0.0001)	0.478 (<0.0001)	

(d)

Dependent data	CRUTEM5 air temperature (AMJJA)		
Independent data	Maximum Latewood Density		
Calibration period	1850-1935	1936-2020	1850-2020
Verification period	1936-2020	1850-1935	
R^2	0.634 (<0.0001)	0.502 (<0.0001)	0.639 (<0.0001)
r^2	0.455 (<0.0001)	0.578 (<0.0001)	
RE	0.715 (<0.0001)	0.669 (<0.0001)	
CE	0.441 (<0.0001)	0.412 (<0.0001)	

Table S5. Same as Table S2 but for reconstructions built using April–August temperatures from the Berkeley dataset.

(a)

Dependent data	Berkeley Earth Surface Temperature (AMJJA)		
Independent data	Maximum Latewood Density		
Calibration period	1850-1902	1903-1955	1850-1955
Verification period	1903-1955	1850-1902	
R^2	0.678 (<0.0001)	0.530 (<0.0001)	0.591 (<0.0001)
r^2	0.473 (<0.0001)	0.637 (<0.0001)	
RE	0.494 (<0.0001)	0.380 (0.0001)	
CE	0.361 (<0.0001)	0.244 (0.0002)	

(b)

Dependent data	Berkeley Earth Surface Temperature (AMJJA)		
Independent data	Phenology		
Calibration period	1850-1902	1903-1955	1850-1955
Verification period	1903-1955	1850-1902	
R^2	0.755 (<0.0001)	0.674 (<0.0001)	0.722 (<0.0001)
r^2	0.674 (<0.0001)	0.755 (<0.0001)	
RE	0.700 (<0.0001)	0.755 (<0.0001)	
CE	0.621 (<0.0001)	0.702 (<0.0001)	

(c)

Dependent data	Berkeley Earth Surface Temperature (AMJJA)		
Independent data	Maximum Latewood Density + Phenology		
Calibration period	1850-1902	1903-1955	1850-1955
Verification period	1903-1955	1850-1902	
R^2	0.825 (<0.0001)	0.840 (<0.0001)	0.813 (<0.0001)
r^2	0.697 (<0.0001)	0.762 (<0.0001)	
RE	0.710 (<0.0001)	0.620 (<0.0001)	
CE	0.635 (<0.0001)	0.537 (<0.0001)	

(d)

Dependent data	Berkeley Earth Surface Temperature (AMJJA)		
Independent data	Maximum Latewood Density		
Calibration period	1850-1935	1936-2020	1850-2020
Verification period	1936-2020	1850-1935	
R^2	0.607 (<0.0001)	0.492 (<0.0001)	0.626 (<0.0001)
r^2	0.436 (0.0002)	0.539 (<0.0001)	
RE	0.710 (<0.0001)	0.641 (<0.0001)	
CE	0.412 (<0.0001)	0.325 (0.0001)	

Table S6. April-August (AMJJA) temperature reconstructions (Fig. 5) based on RCS indices of maximum latewood density (a), phenological z scores (b), and multiple proxy data using both the RCS and phenology data over the AD 1750–1955 period (c), and based on he RCS indices of maximum latewood density over the AD 674–2020 period (d), with Monte Carlo based 95% and 99% confidence intervals (CI) given as lower (L) and upper (U) bounds (see Macias-Fauria et al. (2012) for the Monte Carlo algorithms).

Maximum Latewood Density

(a) Year	AMJJA	CI 95% L	CI 95% U	CI 99% L	CI 99% U
1750	-0.582	-0.774	-0.396	-0.820	-0.346
1751	-0.584	-0.661	-0.505	-0.681	-0.486
1752	-0.083	-0.212	0.042	-0.250	0.077
1753	-0.993	-1.136	-0.847	-1.174	-0.808
1754	-0.941	-1.117	-0.764	-1.163	-0.722
1755	-0.651	-0.832	-0.475	-0.874	-0.429
1756	-0.968	-1.132	-0.801	-1.173	-0.762
1757	-0.522	-0.777	-0.276	-0.844	-0.206
1758	-1.792	-2.067	-1.510	-2.142	-1.426
1759	-0.599	-0.911	-0.297	-0.993	-0.211
1760	-1.404	-1.689	-1.117	-1.763	-1.048
1761	-1.386	-1.724	-1.049	-1.802	-0.962
1762	-1.420	-1.770	-1.070	-1.852	-0.980
1763	-1.516	-1.847	-1.185	-1.930	-1.103
1764	-1.078	-1.386	-0.774	-1.459	-0.695
1765	-1.243	-1.508	-0.978	-1.573	-0.911
1766	-0.888	-1.193	-0.589	-1.265	-0.512
1767	-1.520	-1.877	-1.162	-1.966	-1.070
1768	-1.869	-2.304	-1.434	-2.411	-1.324
1769	-1.651	-2.169	-1.140	-2.292	-1.007
1770	-2.362	-2.947	-1.778	-3.093	-1.628
1771	-2.620	-3.233	-2.003	-3.391	-1.854
1772	-2.116	-2.614	-1.618	-2.736	-1.492
1773	-0.927	-1.327	-0.538	-1.423	-0.432
1774	-1.393	-1.721	-1.065	-1.800	-0.980
1775	-1.741	-2.026	-1.450	-2.101	-1.372
1776	-0.037	-0.333	0.247	-0.416	0.329
1777	-1.358	-1.564	-1.148	-1.620	-1.090
1778	-0.884	-1.138	-0.633	-1.197	-0.568
1779	-1.149	-1.408	-0.889	-1.470	-0.822
1780	-1.236	-1.537	-0.937	-1.608	-0.860
1781	-1.419	-1.741	-1.098	-1.820	-1.016
1782	-1.421	-1.702	-1.135	-1.776	-1.070
1783	-0.651	-0.900	-0.407	-0.961	-0.341
1784	-1.016	-1.233	-0.799	-1.286	-0.743
1785	-1.222	-1.437	-1.002	-1.493	-0.951
1786	-0.480	-0.752	-0.217	-0.825	-0.142
1787	-1.577	-1.857	-1.288	-1.933	-1.218

1788	-1.401	-1.678	-1.120	-1.750	-1.056
1789	-0.490	-0.783	-0.208	-0.863	-0.126
1790	-1.642	-1.892	-1.386	-1.959	-1.311
1791	-0.607	-0.834	-0.387	-0.889	-0.327
1792	-0.802	-0.954	-0.650	-0.991	-0.611
1793	-0.764	-0.897	-0.630	-0.931	-0.597
1794	-0.526	-0.633	-0.420	-0.657	-0.393
1795	-0.539	-0.612	-0.465	-0.630	-0.448
1796	-0.213	-0.373	-0.059	-0.417	-0.016
1797	-1.498	-1.695	-1.295	-1.754	-1.233
1798	-0.055	-0.277	0.159	-0.343	0.220
1799	-1.033	-1.208	-0.854	-1.253	-0.812
1800	-1.255	-1.478	-1.027	-1.536	-0.973
1801	-0.654	-0.911	-0.403	-0.974	-0.335
1802	-1.513	-1.730	-1.291	-1.789	-1.223
1803	-0.193	-0.359	-0.032	-0.405	0.012
1804	-0.378	-0.507	-0.253	-0.541	-0.216
1805	-1.187	-1.386	-0.982	-1.440	-0.932
1806	-1.230	-1.439	-1.015	-1.496	-0.963
1807	-0.445	-0.616	-0.279	-0.661	-0.232
1808	-0.679	-0.796	-0.562	-0.824	-0.532
1809	-0.476	-0.714	-0.246	-0.777	-0.179
1810	-1.999	-2.295	-1.698	-2.378	-1.607
1811	-0.377	-0.683	-0.081	-0.763	0.004
1812	-1.405	-1.608	-1.198	-1.663	-1.133
1813	-0.460	-0.603	-0.321	-0.638	-0.282
1814	-0.178	-0.345	-0.017	-0.392	0.029
1815	-1.412	-1.615	-1.204	-1.671	-1.140
1816	-0.864	-1.032	-0.696	-1.073	-0.653
1817	-0.142	-0.355	0.064	-0.417	0.122
1818	-1.588	-1.799	-1.371	-1.862	-1.306
1819	-0.027	-0.253	0.191	-0.320	0.253
1820	-0.907	-1.106	-0.709	-1.153	-0.658
1821	-1.806	-2.081	-1.524	-2.155	-1.437
1822	-0.342	-0.623	-0.071	-0.696	0.008
1823	-1.167	-1.385	-0.944	-1.441	-0.894
1824	-1.232	-1.484	-0.977	-1.550	-0.916
1825	-1.105	-1.285	-0.920	-1.334	-0.875
1826	0.002	-0.205	0.199	-0.266	0.256
1827	-1.158	-1.319	-0.994	-1.363	-0.943
1828	-0.763	-0.960	-0.567	-1.006	-0.518
1829	-0.874	-1.089	-0.660	-1.139	-0.605
1830	-1.458	-1.658	-1.254	-1.714	-1.192
1831	0.492	0.137	0.830	0.035	0.928
1832	-2.129	-2.458	-1.792	-2.548	-1.687
1833	-1.798	-2.122	-1.464	-2.211	-1.381
1834	-0.065	-0.409	0.268	-0.508	0.362
1835	-1.646	-1.920	-1.368	-1.991	-1.292

1836	-1.357	-1.650	-1.063	-1.722	-0.990
1837	-0.713	-1.032	-0.403	-1.112	-0.317
1838	-1.761	-2.066	-1.450	-2.146	-1.368
1839	-1.016	-1.309	-0.726	-1.378	-0.652
1840	-1.052	-1.267	-0.837	-1.320	-0.783
1841	-0.720	-0.904	-0.538	-0.947	-0.491
1842	-0.724	-0.911	-0.539	-0.955	-0.491
1843	-1.109	-1.321	-0.894	-1.376	-0.843
1844	-1.087	-1.285	-0.886	-1.336	-0.839
1845	-0.624	-0.745	-0.505	-0.773	-0.473
1846	-0.092	-0.251	0.060	-0.299	0.104
1847	-1.222	-1.390	-1.051	-1.436	-0.998
1848	-0.661	-0.855	-0.471	-0.901	-0.421
1849	-0.994	-1.146	-0.839	-1.186	-0.800
1850	-0.326	-0.527	-0.131	-0.580	-0.075
1851	-1.353	-1.542	-1.160	-1.595	-1.101
1852	-0.356	-0.581	-0.138	-0.641	-0.075
1853	-1.324	-1.501	-1.143	-1.551	-1.088
1854	-0.180	-0.315	-0.050	-0.353	-0.014
1855	-0.268	-0.412	-0.128	-0.451	-0.088
1856	-1.514	-1.728	-1.295	-1.788	-1.230
1857	-0.688	-0.834	-0.543	-0.868	-0.506
1858	-0.052	-0.206	0.096	-0.251	0.138
1859	-1.105	-1.244	-0.964	-1.285	-0.920
1860	-0.475	-0.565	-0.387	-0.585	-0.364
1861	-0.015	-0.168	0.131	-0.212	0.171
1862	-1.265	-1.447	-1.078	-1.496	-1.023
1863	-0.902	-1.165	-0.643	-1.226	-0.575
1864	-1.528	-1.761	-1.290	-1.824	-1.222
1865	-0.221	-0.443	-0.005	-0.505	0.055
1866	-0.771	-0.998	-0.547	-1.052	-0.489
1867	-2.201	-2.504	-1.884	-2.598	-1.795
1868	0.689	0.394	0.966	0.312	1.052
1869	-0.949	-1.070	-0.821	-1.101	-0.788
1870	0.077	-0.105	0.251	-0.158	0.300
1871	-1.518	-1.716	-1.307	-1.771	-1.256
1872	0.290	0.147	0.424	0.107	0.467
1873	-0.165	-0.209	-0.122	-0.222	-0.110
1874	-1.064	-1.190	-0.933	-1.228	-0.897
1875	-0.150	-0.232	-0.072	-0.256	-0.050
1876	-0.036	-0.193	0.115	-0.239	0.157
1877	-1.714	-1.952	-1.472	-2.024	-1.395
1878	-0.662	-0.830	-0.496	-0.869	-0.453
1879	-0.292	-0.355	-0.232	-0.372	-0.214
1880	-0.034	-0.179	0.106	-0.222	0.144
1881	-1.640	-1.856	-1.411	-1.917	-1.353
1882	0.414	0.210	0.606	0.153	0.666
1883	-0.677	-0.749	-0.604	-0.769	-0.582

1884	-0.758	-0.891	-0.624	-0.925	-0.591
1885	-0.958	-1.070	-0.842	-1.103	-0.807
1886	0.246	0.161	0.326	0.139	0.347
1887	0.223	0.145	0.297	0.126	0.318
1888	-0.943	-1.057	-0.822	-1.086	-0.790
1889	-0.180	-0.231	-0.130	-0.247	-0.116
1890	-0.136	-0.162	-0.112	-0.170	-0.105
1891	-0.266	-0.376	-0.159	-0.406	-0.129
1892	-1.414	-1.607	-1.217	-1.661	-1.158
1893	-0.720	-0.798	-0.641	-0.820	-0.617
1894	0.800	0.623	0.965	0.580	1.011
1895	-0.443	-0.600	-0.280	-0.645	-0.232
1896	0.358	0.256	0.458	0.226	0.487
1897	0.016	-0.029	0.058	-0.039	0.069
1898	-0.718	-0.917	-0.523	-0.964	-0.473
1899	-2.311	-2.658	-1.957	-2.757	-1.850
1900	-0.584	-0.776	-0.398	-0.821	-0.347
1901	0.435	0.153	0.705	0.073	0.781
1902	-2.377	-2.707	-2.027	-2.802	-1.940
1903	0.430	0.107	0.737	0.015	0.826
1904	-1.382	-1.558	-1.195	-1.608	-1.149
1905	-0.179	-0.191	-0.168	-0.194	-0.165
1906	0.840	0.662	1.007	0.616	1.057
1907	-0.761	-0.937	-0.576	-0.990	-0.523
1908	0.528	0.371	0.675	0.328	0.716
1909	-1.085	-1.223	-0.938	-1.258	-0.898
1910	-0.163	-0.255	-0.074	-0.282	-0.049
1911	-0.477	-0.512	-0.439	-0.522	-0.430
1912	-0.181	-0.211	-0.152	-0.218	-0.145
1913	0.230	0.152	0.305	0.128	0.328
1914	-0.292	-0.324	-0.259	-0.333	-0.249
1915	-0.468	-0.506	-0.426	-0.517	-0.414
1916	-0.081	-0.114	-0.048	-0.123	-0.039
1917	0.184	0.108	0.256	0.087	0.274
1918	-0.930	-1.071	-0.779	-1.115	-0.735
1919	0.345	0.239	0.449	0.207	0.478
1920	0.555	0.378	0.728	0.336	0.774
1921	0.219	0.085	0.352	0.051	0.385
1922	0.050	-0.022	0.117	-0.042	0.138
1923	-1.670	-1.916	-1.407	-1.980	-1.339
1924	0.871	0.683	1.046	0.637	1.095
1925	0.263	0.085	0.442	0.039	0.485
1926	0.232	0.086	0.378	0.049	0.412
1927	0.274	0.181	0.366	0.152	0.391
1928	-0.659	-0.770	-0.541	-0.805	-0.508
1929	0.066	-0.004	0.134	-0.021	0.152
1930	0.362	0.224	0.498	0.191	0.533
1931	0.171	0.006	0.337	-0.037	0.376

1932	0.451	0.298	0.600	0.261	0.640
1933	-0.126	-0.329	0.083	-0.387	0.138
1934	1.070	0.856	1.273	0.798	1.336
1935	-1.092	-1.332	-0.836	-1.407	-0.766
1936	0.523	0.381	0.662	0.339	0.699
1937	0.702	0.461	0.941	0.404	1.003
1938	0.541	0.282	0.802	0.215	0.864
1939	0.740	0.515	0.959	0.462	1.016
1940	0.083	-0.068	0.236	-0.107	0.273
1941	-0.092	-0.175	-0.008	-0.197	0.012
1942	-0.082	-0.155	-0.007	-0.174	0.011
1943	0.070	-0.023	0.164	-0.047	0.186
1944	0.107	-0.036	0.251	-0.072	0.285
1945	0.437	0.234	0.640	0.182	0.687
1946	0.663	0.383	0.944	0.312	1.009
1947	1.030	0.712	1.345	0.637	1.428
1948	0.731	0.454	1.007	0.382	1.076
1949	0.245	0.016	0.478	-0.044	0.533
1950	0.467	0.268	0.666	0.218	0.716
1951	0.563	0.409	0.714	0.367	0.754
1952	-0.610	-0.780	-0.431	-0.829	-0.379
1953	0.414	0.290	0.535	0.255	0.567
1954	0.223	0.028	0.422	-0.023	0.469
1955	0.843	0.652	1.030	0.593	1.082

(b) Phenology

Year	AMJJA	CI 95% L	CI 95% U	CI 99% L	CI 99% U
1750	2.476	2.144	2.817	2.055	2.916
1751	0.601	0.497	0.707	0.470	0.738
1752	1.008	0.855	1.166	0.814	1.211
1753	0.895	0.756	1.039	0.719	1.080
1754	0.125	0.079	0.172	0.067	0.186
1755	1.191	1.016	1.372	0.969	1.424
1756	-0.393	-0.411	-0.376	-0.417	-0.371
1757	0.719	0.601	0.840	0.569	0.875
1758	-0.351	-0.364	-0.339	-0.367	-0.336
1759	-1.137	-1.248	-1.029	-1.280	-1.000
1760	-0.563	-0.602	-0.525	-0.613	-0.515
1761	0.490	0.400	0.583	0.376	0.609
1762	0.285	0.220	0.352	0.203	0.372
1763	0.085	0.045	0.128	0.034	0.140
1764	-0.390	-0.407	-0.373	-0.412	-0.368
1765	-0.384	-0.401	-0.368	-0.406	-0.364
1766	0.628	0.521	0.738	0.492	0.770
1767	-0.641	-0.690	-0.593	-0.704	-0.581
1768	-0.679	-0.733	-0.627	-0.749	-0.613
1769	0.080	0.040	0.122	0.029	0.134
1770	-0.020	-0.048	0.009	-0.055	0.017

1771	-0.793	-0.861	-0.727	-0.881	-0.709
1772	-0.868	-0.946	-0.793	-0.968	-0.773
1773	0.681	0.568	0.798	0.538	0.832
1774	0.709	0.592	0.829	0.561	0.863
1775	-0.837	-0.910	-0.765	-0.931	-0.746
1776	-0.707	-0.764	-0.651	-0.780	-0.636
1777	-0.362	-0.376	-0.349	-0.380	-0.345
1778	-0.444	-0.468	-0.420	-0.475	-0.414
1779	0.002	-0.029	0.034	-0.037	0.043
1780	-0.938	-1.024	-0.854	-1.049	-0.832
1781	-0.302	-0.309	-0.296	-0.310	-0.294
1782	-0.839	-0.912	-0.767	-0.934	-0.748
1783	0.899	0.759	1.043	0.722	1.085
1784	-0.973	-1.064	-0.885	-1.090	-0.862
1785	-1.432	-1.580	-1.288	-1.623	-1.250
1786	-1.035	-1.133	-0.939	-1.161	-0.914
1787	-0.855	-0.931	-0.781	-0.952	-0.762
1788	0.047	0.011	0.084	0.001	0.095
1789	0.175	0.124	0.229	0.110	0.244
1790	0.351	0.278	0.426	0.258	0.448
1791	0.152	0.103	0.203	0.090	0.217
1792	0.380	0.303	0.459	0.282	0.481
1793	-0.017	-0.045	0.013	-0.053	0.021
1794	0.457	0.371	0.546	0.348	0.572
1795	-0.722	-0.781	-0.664	-0.798	-0.649
1796	0.226	0.168	0.286	0.153	0.303
1797	-0.018	-0.046	0.011	-0.054	0.020
1798	1.534	1.317	1.757	1.258	1.822
1799	-0.566	-0.605	-0.527	-0.617	-0.517
1800	-0.361	-0.375	-0.348	-0.379	-0.344
1801	0.936	0.792	1.085	0.753	1.128
1802	0.143	0.095	0.192	0.082	0.207
1803	0.417	0.336	0.500	0.314	0.525
1804	0.187	0.134	0.242	0.119	0.257
1805	-0.984	-1.076	-0.895	-1.102	-0.871
1806	-0.932	-1.017	-0.849	-1.042	-0.827
1807	-1.293	-1.423	-1.166	-1.461	-1.132
1808	-0.375	-0.391	-0.360	-0.396	-0.356
1809	-0.523	-0.558	-0.490	-0.567	-0.481
1810	-2.179	-2.420	-1.944	-2.490	-1.881
1811	-0.665	-0.716	-0.614	-0.731	-0.601
1812	-1.354	-1.492	-1.220	-1.532	-1.184
1813	-0.244	-0.244	-0.243	-0.245	-0.243
1814	-0.410	-0.430	-0.391	-0.436	-0.386
1815	-0.644	-0.693	-0.596	-0.708	-0.583
1816	-0.748	-0.811	-0.688	-0.829	-0.672
1817	-0.161	-0.171	-0.149	-0.174	-0.146
1818	-0.762	-0.826	-0.699	-0.844	-0.683

1819	-0.133	-0.147	-0.119	-0.151	-0.114
1820	-0.210	-0.215	-0.205	-0.216	-0.204
1821	-1.188	-1.305	-1.074	-1.339	-1.043
1822	1.850	1.595	2.113	1.526	2.189
1823	-0.839	-0.912	-0.767	-0.934	-0.748
1824	0.015	-0.017	0.049	-0.025	0.058
1825	-0.466	-0.493	-0.440	-0.501	-0.433
1826	1.520	1.305	1.742	1.247	1.806
1827	1.031	0.875	1.191	0.833	1.237
1828	-0.294	-0.299	-0.288	-0.301	-0.287
1829	-0.914	-0.997	-0.833	-1.021	-0.812
1830	-0.795	-0.863	-0.729	-0.883	-0.711
1831	0.386	0.308	0.465	0.288	0.488
1832	-0.508	-0.540	-0.476	-0.549	-0.468
1833	-0.409	-0.429	-0.390	-0.435	-0.385
1834	-0.106	-0.124	-0.088	-0.128	-0.083
1835	-0.819	-0.890	-0.750	-0.911	-0.731
1836	-0.700	-0.757	-0.645	-0.773	-0.631
1837	-0.867	-0.944	-0.792	-0.966	-0.772
1838	-0.739	-0.800	-0.679	-0.818	-0.663
1839	0.023	-0.010	0.057	-0.019	0.067
1840	-0.582	-0.623	-0.541	-0.635	-0.530
1841	0.487	0.398	0.580	0.373	0.606
1842	0.600	0.497	0.707	0.469	0.738
1843	-0.824	-0.896	-0.754	-0.917	-0.735
1844	0.311	0.242	0.381	0.224	0.401
1845	-0.565	-0.604	-0.527	-0.616	-0.516
1846	-0.255	-0.255	-0.254	-0.256	-0.254
1847	-0.900	-0.982	-0.821	-1.005	-0.800
1848	0.469	0.382	0.560	0.358	0.586
1849	-0.818	-0.889	-0.749	-0.910	-0.730
1850	0.343	0.271	0.418	0.252	0.439
1851	-0.485	-0.515	-0.457	-0.523	-0.449
1852	-0.247	-0.248	-0.247	-0.248	-0.247
1853	-0.334	-0.344	-0.323	-0.347	-0.321
1854	0.318	0.249	0.389	0.230	0.410
1855	-0.041	-0.067	-0.015	-0.073	-0.007
1856	-0.923	-1.007	-0.841	-1.031	-0.819
1857	-0.827	-0.900	-0.757	-0.921	-0.738
1858	-0.228	-0.231	-0.225	-0.231	-0.224
1859	0.147	0.099	0.197	0.086	0.211
1860	-0.354	-0.367	-0.341	-0.371	-0.338
1861	-0.672	-0.724	-0.620	-0.740	-0.607
1862	-0.592	-0.635	-0.551	-0.648	-0.540
1863	-0.327	-0.336	-0.318	-0.339	-0.315
1864	-1.043	-1.142	-0.946	-1.171	-0.920
1865	-0.664	-0.716	-0.614	-0.731	-0.600
1866	-0.907	-0.989	-0.827	-1.013	-0.806

1867	-2.590	-2.883	-2.305	-2.967	-2.229
1868	-0.077	-0.098	-0.056	-0.104	-0.050
1869	-0.350	-0.362	-0.338	-0.366	-0.334
1870	0.009	-0.023	0.041	-0.031	0.051
1871	-1.309	-1.442	-1.180	-1.480	-1.146
1872	0.954	0.808	1.105	0.768	1.149
1873	-0.265	-0.267	-0.263	-0.267	-0.263
1874	-1.065	-1.168	-0.966	-1.197	-0.940
1875	-0.281	-0.285	-0.277	-0.286	-0.276
1876	-0.977	-1.068	-0.889	-1.095	-0.865
1877	-1.806	-2.001	-1.617	-2.057	-1.566
1878	-0.040	-0.066	-0.014	-0.073	-0.006
1879	-0.329	-0.339	-0.319	-0.342	-0.317
1880	-0.244	-0.245	-0.244	-0.245	-0.243
1881	-1.413	-1.559	-1.272	-1.601	-1.234
1882	0.512	0.419	0.607	0.394	0.635
1883	0.261	0.198	0.325	0.182	0.343
1884	-1.002	-1.096	-0.911	-1.124	-0.886
1885	-0.899	-0.980	-0.820	-1.004	-0.799
1886	0.536	0.440	0.635	0.415	0.663
1887	0.341	0.269	0.415	0.249	0.436
1888	-1.505	-1.662	-1.352	-1.707	-1.311
1889	0.766	0.642	0.893	0.609	0.929
1890	1.642	1.412	1.879	1.350	1.948
1891	-0.444	-0.468	-0.420	-0.475	-0.414
1892	-1.525	-1.684	-1.370	-1.730	-1.328
1893	-0.826	-0.899	-0.756	-0.920	-0.738
1894	1.760	1.516	2.012	1.450	2.085
1895	0.554	0.456	0.654	0.430	0.683
1896	0.050	0.014	0.088	0.004	0.099
1897	0.971	0.822	1.124	0.783	1.168
1898	-0.402	-0.421	-0.384	-0.427	-0.379
1899	-1.820	-2.016	-1.629	-2.073	-1.578
1900	-1.103	-1.210	-1.000	-1.241	-0.972
1901	0.335	0.264	0.409	0.245	0.430
1902	-1.818	-2.015	-1.627	-2.071	-1.576
1903	0.476	0.387	0.567	0.364	0.593
1904	-1.205	-1.325	-1.089	-1.360	-1.058
1905	0.084	0.044	0.126	0.033	0.138
1906	1.000	0.848	1.157	0.807	1.202
1907	-0.818	-0.889	-0.749	-0.909	-0.730
1908	-0.756	-0.820	-0.695	-0.838	-0.678
1909	-1.523	-1.682	-1.368	-1.728	-1.327
1910	0.964	0.816	1.116	0.777	1.160
1911	0.045	0.009	0.082	-0.001	0.092
1912	-0.507	-0.539	-0.476	-0.548	-0.467
1913	0.212	0.156	0.270	0.141	0.287
1914	0.254	0.192	0.317	0.176	0.335

1915	-0.904	-0.986	-0.824	-1.009	-0.803
1916	-0.712	-0.770	-0.656	-0.787	-0.641
1917	-0.500	-0.531	-0.469	-0.540	-0.461
1918	-0.369	-0.384	-0.355	-0.388	-0.351
1919	0.206	0.151	0.263	0.136	0.280
1920	0.792	0.666	0.923	0.632	0.961
1921	2.116	1.828	2.412	1.751	2.497
1922	-0.148	-0.161	-0.136	-0.164	-0.132
1923	-1.622	-1.794	-1.455	-1.844	-1.411
1924	-1.228	-1.351	-1.109	-1.386	-1.077
1925	0.522	0.428	0.618	0.403	0.646
1926	-0.301	-0.308	-0.295	-0.309	-0.293
1927	-0.891	-0.971	-0.813	-0.995	-0.792
1928	-1.123	-1.233	-1.017	-1.264	-0.989
1929	-0.791	-0.859	-0.725	-0.878	-0.707
1930	1.141	0.972	1.316	0.927	1.366
1931	0.056	0.019	0.094	0.009	0.106
1932	-0.347	-0.360	-0.336	-0.363	-0.332
1933	-0.191	-0.198	-0.183	-0.200	-0.181
1934	0.782	0.657	0.911	0.623	0.949
1935	-0.706	-0.763	-0.651	-0.780	-0.636
1936	0.772	0.647	0.900	0.614	0.937
1937	1.072	0.912	1.238	0.868	1.286
1938	0.039	0.004	0.076	-0.005	0.086
1939	-0.259	-0.261	-0.258	-0.261	-0.258
1940	-0.233	-0.235	-0.231	-0.236	-0.230
1941	-1.026	-1.123	-0.931	-1.151	-0.906
1942	-0.672	-0.725	-0.621	-0.741	-0.607
1943	0.738	0.618	0.862	0.586	0.898
1944	-0.976	-1.066	-0.887	-1.093	-0.864
1945	-0.243	-0.244	-0.242	-0.244	-0.242
1946	-0.206	-0.212	-0.201	-0.213	-0.199
1947	0.177	0.125	0.230	0.111	0.245
1948	0.823	0.692	0.957	0.657	0.996
1949	0.645	0.536	0.757	0.507	0.789
1950	0.424	0.342	0.509	0.320	0.533
1951	-0.835	-0.908	-0.764	-0.929	-0.744
1952	-0.266	-0.268	-0.264	-0.268	-0.263
1953	1.007	0.854	1.164	0.813	1.210
1954	0.313	0.244	0.383	0.226	0.404
1955	-1.575	-1.741	-1.414	-1.789	-1.371

Maximum Latewood Density + Phenology

(c)

Year	AMJJA	CI 95% L	CI 95% U	CI 99% L	CI 99% U
1750	1.505	1.055	1.955	0.947	2.080
1751	0.183	0.013	0.356	-0.027	0.403
1752	0.715	0.520	0.908	0.477	0.957
1753	0.186	-0.084	0.463	-0.148	0.544

1754	-0.346	-0.572	-0.120	-0.617	-0.074
1755	0.556	0.247	0.867	0.173	0.941
1756	-0.727	-0.905	-0.551	-0.936	-0.521
1757	0.273	-0.040	0.579	-0.101	0.635
1758	-1.110	-1.411	-0.802	-1.485	-0.733
1759	-1.097	-1.403	-0.801	-1.471	-0.740
1760	-1.079	-1.384	-0.782	-1.432	-0.732
1761	-0.328	-0.756	0.098	-0.839	0.181
1762	-0.492	-0.917	-0.070	-0.997	0.012
1763	-0.678	-1.072	-0.285	-1.150	-0.213
1764	-0.800	-1.125	-0.483	-1.182	-0.427
1765	-0.871	-1.159	-0.587	-1.211	-0.538
1766	0.020	-0.355	0.390	-0.430	0.461
1767	-1.203	-1.581	-0.832	-1.642	-0.771
1768	-1.412	-1.876	-0.959	-1.951	-0.886
1769	-0.776	-1.352	-0.209	-1.453	-0.116
1770	-1.205	-1.873	-0.546	-1.998	-0.429
1771	-1.887	-2.546	-1.243	-2.656	-1.130
1772	-1.677	-2.203	-1.163	-2.287	-1.077
1773	0.026	-0.437	0.482	-0.527	0.566
1774	-0.174	-0.610	0.264	-0.702	0.355
1775	-1.435	-1.720	-1.148	-1.782	-1.097
1776	-0.508	-0.780	-0.245	-0.850	-0.185
1777	-0.898	-1.122	-0.669	-1.173	-0.624
1778	-0.736	-0.997	-0.480	-1.046	-0.433
1779	-0.548	-0.855	-0.245	-0.912	-0.189
1780	-1.268	-1.571	-0.971	-1.625	-0.915
1781	-0.906	-1.264	-0.557	-1.325	-0.494
1782	-1.284	-1.571	-1.001	-1.619	-0.954
1783	0.339	0.004	0.672	-0.063	0.735
1784	-1.173	-1.387	-0.962	-1.427	-0.924
1785	-1.600	-1.808	-1.390	-1.849	-1.351
1786	-0.960	-1.227	-0.702	-1.289	-0.648
1787	-1.370	-1.657	-1.087	-1.709	-1.039
1788	-0.641	-0.973	-0.307	-1.042	-0.243
1789	-0.104	-0.411	0.193	-0.473	0.246
1790	-0.533	-0.867	-0.193	-0.943	-0.102
1791	-0.170	-0.422	0.076	-0.467	0.120
1792	-0.093	-0.312	0.129	-0.361	0.178
1793	-0.354	-0.520	-0.188	-0.554	-0.155
1794	0.104	-0.067	0.277	-0.106	0.316
1795	-0.738	-0.814	-0.663	-0.828	-0.649
1796	0.088	-0.080	0.250	-0.115	0.283
1797	-0.711	-0.934	-0.476	-0.995	-0.407
1798	1.092	0.781	1.398	0.716	1.470
1799	-0.883	-1.066	-0.705	-1.097	-0.675
1800	-0.853	-1.101	-0.606	-1.145	-0.563
1801	0.362	0.017	0.705	-0.051	0.769

1802	-0.612	-0.886	-0.332	-0.950	-0.252
1803	0.233	0.048	0.412	0.009	0.449
1804	-0.019	-0.173	0.131	-0.203	0.159
1805	-1.260	-1.453	-1.068	-1.491	-1.035
1806	-1.246	-1.451	-1.043	-1.490	-1.007
1807	-1.114	-1.303	-0.930	-1.350	-0.886
1808	-0.566	-0.690	-0.446	-0.710	-0.426
1809	-0.589	-0.820	-0.366	-0.869	-0.319
1810	-2.514	-2.766	-2.260	-2.831	-2.199
1811	-0.649	-0.940	-0.369	-1.003	-0.307
1812	-1.627	-1.805	-1.447	-1.845	-1.407
1813	-0.368	-0.513	-0.227	-0.542	-0.203
1814	-0.350	-0.504	-0.202	-0.540	-0.168
1815	-1.123	-1.323	-0.919	-1.371	-0.881
1816	-0.931	-1.098	-0.767	-1.127	-0.737
1817	-0.160	-0.355	0.030	-0.400	0.073
1818	-1.287	-1.471	-1.094	-1.523	-1.050
1819	-0.084	-0.286	0.112	-0.335	0.159
1820	-0.572	-0.795	-0.354	-0.836	-0.315
1821	-1.713	-1.969	-1.454	-2.023	-1.410
1822	1.167	0.750	1.581	0.656	1.669
1823	-1.150	-1.368	-0.935	-1.408	-0.898
1824	-0.578	-0.880	-0.276	-0.940	-0.219
1825	-0.847	-1.040	-0.656	-1.076	-0.623
1826	1.113	0.821	1.399	0.759	1.468
1827	0.200	-0.101	0.514	-0.180	0.605
1828	-0.561	-0.771	-0.357	-0.807	-0.320
1829	-1.061	-1.275	-0.853	-1.316	-0.811
1830	-1.250	-1.431	-1.063	-1.477	-1.027
1831	0.532	0.229	0.818	0.157	0.895
1832	-1.392	-1.740	-1.035	-1.824	-0.958
1833	-1.166	-1.528	-0.804	-1.597	-0.736
1834	-0.099	-0.415	0.207	-0.487	0.278
1835	-1.375	-1.651	-1.100	-1.706	-1.051
1836	-1.156	-1.461	-0.856	-1.510	-0.808
1837	-0.962	-1.273	-0.663	-1.339	-0.599
1838	-1.379	-1.695	-1.064	-1.757	-1.009
1839	-0.473	-0.802	-0.147	-0.862	-0.094
1840	-0.911	-1.134	-0.691	-1.170	-0.656
1841	0.019	-0.230	0.271	-0.284	0.319
1842	0.097	-0.165	0.362	-0.222	0.415
1843	-1.110	-1.322	-0.902	-1.360	-0.867
1844	-0.288	-0.556	-0.017	-0.613	0.045
1845	-0.676	-0.797	-0.558	-0.818	-0.535
1846	-0.195	-0.337	-0.059	-0.370	-0.024
1847	-1.209	-1.359	-1.057	-1.393	-1.030
1848	0.034	-0.218	0.285	-0.271	0.332
1849	-1.040	-1.184	-0.896	-1.213	-0.871

1850	0.110	-0.113	0.325	-0.158	0.367
1851	-0.979	-1.170	-0.782	-1.218	-0.740
1852	-0.330	-0.548	-0.119	-0.594	-0.078
1853	-0.853	-1.037	-0.662	-1.085	-0.615
1854	0.173	0.023	0.317	-0.008	0.348
1855	-0.129	-0.273	0.011	-0.303	0.037
1856	-1.371	-1.563	-1.173	-1.608	-1.138
1857	-0.898	-1.044	-0.756	-1.071	-0.728
1858	-0.155	-0.290	-0.025	-0.322	0.009
1859	-0.398	-0.579	-0.208	-0.627	-0.152
1860	-0.448	-0.538	-0.359	-0.555	-0.342
1861	-0.453	-0.598	-0.317	-0.636	-0.279
1862	-1.013	-1.197	-0.827	-1.239	-0.794
1863	-0.663	-0.939	-0.392	-0.989	-0.346
1864	-1.470	-1.687	-1.251	-1.733	-1.212
1865	-0.560	-0.770	-0.357	-0.821	-0.312
1866	-1.007	-1.232	-0.789	-1.278	-0.746
1867	-2.897	-3.131	-2.655	-3.206	-2.588
1868	0.310	0.078	0.527	0.013	0.591
1869	-0.662	-0.752	-0.563	-0.781	-0.535
1870	0.076	-0.081	0.225	-0.118	0.265
1871	-1.633	-1.765	-1.495	-1.804	-1.455
1872	0.865	0.713	1.010	0.673	1.051
1873	-0.223	-0.262	-0.187	-0.272	-0.178
1874	-1.238	-1.328	-1.144	-1.357	-1.118
1875	-0.232	-0.304	-0.163	-0.322	-0.147
1876	-0.682	-0.847	-0.527	-0.892	-0.482
1877	-2.099	-2.292	-1.904	-2.345	-1.855
1878	-0.327	-0.517	-0.138	-0.552	-0.105
1879	-0.336	-0.396	-0.277	-0.409	-0.265
1880	-0.156	-0.283	-0.035	-0.314	-0.004
1881	-1.768	-1.913	-1.616	-1.958	-1.573
1882	0.603	0.436	0.761	0.399	0.801
1883	-0.102	-0.229	0.029	-0.261	0.069
1884	-1.055	-1.190	-0.921	-1.214	-0.895
1885	-1.069	-1.156	-0.979	-1.180	-0.958
1886	0.555	0.484	0.622	0.464	0.644
1887	0.406	0.350	0.459	0.333	0.476
1888	-1.486	-1.595	-1.372	-1.628	-1.338
1889	0.503	0.370	0.636	0.338	0.674
1890	1.155	0.939	1.374	0.875	1.439
1891	-0.411	-0.516	-0.310	-0.539	-0.287
1892	-1.749	-1.910	-1.586	-1.953	-1.546
1893	-0.899	-0.965	-0.833	-0.983	-0.816
1894	1.703	1.527	1.874	1.476	1.924
1895	0.248	0.083	0.422	0.036	0.470
1896	0.272	0.180	0.360	0.163	0.381
1897	0.753	0.632	0.875	0.595	0.911

1898	-0.617	-0.819	-0.418	-0.858	-0.381
1899	-2.415	-2.714	-2.115	-2.778	-2.051
1900	-1.050	-1.245	-0.860	-1.291	-0.820
1901	0.477	0.241	0.699	0.185	0.762
1902	-2.424	-2.649	-2.185	-2.714	-2.123
1903	0.569	0.290	0.833	0.224	0.901
1904	-1.493	-1.611	-1.368	-1.647	-1.333
1905	0.024	-0.009	0.057	-0.019	0.068
1906	1.184	1.058	1.305	1.022	1.342
1907	-0.889	-1.036	-0.734	-1.075	-0.698
1908	-0.235	-0.404	-0.082	-0.451	-0.033
1909	-1.567	-1.680	-1.448	-1.713	-1.416
1910	0.648	0.471	0.823	0.430	0.869
1911	-0.152	-0.213	-0.087	-0.231	-0.066
1912	-0.395	-0.449	-0.342	-0.462	-0.330
1913	0.321	0.260	0.380	0.245	0.397
1914	0.093	0.029	0.159	0.011	0.178
1915	-0.822	-0.886	-0.758	-0.904	-0.738
1916	-0.493	-0.579	-0.410	-0.603	-0.387
1917	-0.215	-0.304	-0.133	-0.330	-0.109
1918	-0.661	-0.764	-0.547	-0.793	-0.515
1919	0.379	0.286	0.471	0.268	0.491
1920	0.912	0.742	1.080	0.710	1.114
1921	1.688	1.437	1.938	1.369	2.015
1922	-0.035	-0.087	0.014	-0.102	0.028
1923	-1.922	-2.079	-1.752	-2.125	-1.701
1924	-0.394	-0.660	-0.144	-0.746	-0.070
1925	0.578	0.401	0.759	0.367	0.793
1926	-0.029	-0.191	0.136	-0.220	0.166
1927	-0.440	-0.609	-0.279	-0.657	-0.238
1928	-1.065	-1.181	-0.945	-1.210	-0.915
1929	-0.472	-0.602	-0.344	-0.639	-0.313
1930	1.062	0.902	1.222	0.860	1.264
1931	0.199	0.037	0.365	0.003	0.397
1932	0.044	-0.134	0.221	-0.169	0.259
1933	-0.119	-0.314	0.084	-0.353	0.125
1934	1.144	0.991	1.293	0.952	1.336
1935	-0.968	-1.154	-0.771	-1.210	-0.719
1936	0.875	0.744	1.004	0.713	1.036
1937	1.194	0.956	1.434	0.914	1.476
1938	0.383	0.117	0.653	0.069	0.703
1939	0.259	0.007	0.509	-0.039	0.559
1940	-0.053	-0.209	0.108	-0.236	0.138
1941	-0.714	-0.868	-0.562	-0.905	-0.525
1942	-0.458	-0.570	-0.347	-0.593	-0.322
1943	0.626	0.508	0.746	0.475	0.779
1944	-0.572	-0.782	-0.363	-0.824	-0.318
1945	0.121	-0.099	0.347	-0.137	0.387

1946	0.269	-0.032	0.577	-0.083	0.631
1947	0.726	0.402	1.058	0.347	1.114
1948	1.036	0.767	1.310	0.720	1.359
1949	0.665	0.437	0.900	0.390	0.946
1950	0.611	0.419	0.807	0.384	0.843
1951	-0.250	-0.478	-0.027	-0.543	0.023
1952	-0.419	-0.564	-0.267	-0.602	-0.229
1953	0.987	0.854	1.117	0.818	1.152
1954	0.412	0.222	0.609	0.185	0.649
1955	-0.640	-0.985	-0.309	-1.087	-0.226

(d) Maximum Latewood Density

Year	AMJJA	CI 95% L	CI 95% U	CI 99% L	CI 99% U
674	0.666	0.439	0.895	0.401	0.935
675	0.902	0.525	1.282	0.458	1.350
676	2.192	1.719	2.667	1.625	2.769
677	1.226	0.651	1.804	0.550	1.914
678	2.480	2.038	2.918	1.939	3.030
679	0.035	-0.110	0.181	-0.142	0.216
680	-0.559	-1.156	0.039	-1.278	0.153
681	-5.329	-6.258	-4.393	-6.498	-4.177
682	-1.262	-2.191	-0.335	-2.367	-0.165
683	-2.442	-2.939	-1.943	-3.058	-1.839
684	0.019	-0.384	0.421	-0.479	0.509
685	-1.007	-1.178	-0.833	-1.225	-0.794
686	0.231	0.052	0.412	0.007	0.453
687	-0.703	-0.821	-0.582	-0.856	-0.549
688	0.957	0.818	1.093	0.778	1.133
689	-0.197	-0.291	-0.102	-0.316	-0.077
690	0.042	-0.043	0.127	-0.062	0.147
691	1.061	0.918	1.202	0.876	1.247
692	-0.571	-0.688	-0.454	-0.726	-0.418
693	0.091	0.051	0.131	0.041	0.140
694	0.061	-0.036	0.158	-0.057	0.181
695	0.895	0.730	1.058	0.695	1.098
696	0.721	0.609	0.832	0.583	0.862
697	-0.632	-0.729	-0.532	-0.760	-0.502
698	-0.062	-0.135	0.010	-0.149	0.024
699	0.082	0.005	0.159	-0.013	0.177
700	-0.363	-0.533	-0.196	-0.562	-0.167
701	-1.112	-1.415	-0.814	-1.473	-0.760
702	-1.350	-1.633	-1.066	-1.700	-1.007
703	0.029	-0.142	0.199	-0.182	0.236
704	0.214	-0.006	0.435	-0.058	0.486
705	-1.822	-2.125	-1.514	-2.207	-1.444
706	-0.371	-0.697	-0.046	-0.760	0.015
707	-0.931	-1.108	-0.752	-1.154	-0.713
708	0.198	0.029	0.368	-0.013	0.406

709	-0.556	-0.643	-0.469	-0.669	-0.446
710	0.328	0.143	0.513	0.096	0.557
711	-0.944	-1.217	-0.675	-1.266	-0.626
712	-1.923	-2.244	-1.596	-2.331	-1.523
713	0.599	0.368	0.829	0.305	0.889
714	-0.108	-0.133	-0.082	-0.140	-0.076
715	-0.168	-0.330	-0.007	-0.362	0.023
716	-1.247	-1.451	-1.042	-1.504	-0.994
717	0.116	0.037	0.196	0.018	0.214
718	0.489	0.356	0.623	0.333	0.646
719	1.059	0.897	1.219	0.860	1.260
720	-0.364	-0.527	-0.200	-0.570	-0.155
721	0.542	0.455	0.628	0.435	0.651
722	0.395	0.179	0.612	0.140	0.653
723	1.125	0.739	1.515	0.673	1.582
724	2.354	1.865	2.843	1.763	2.956
725	1.057	0.570	1.549	0.483	1.641
726	1.484	1.131	1.843	1.067	1.916
727	0.695	0.373	1.019	0.317	1.082
728	1.049	0.820	1.278	0.776	1.326
729	0.342	0.125	0.560	0.085	0.602
730	0.738	0.549	0.930	0.514	0.965
731	0.739	0.519	0.963	0.481	1.001
732	0.722	0.478	0.968	0.437	1.011
733	0.915	0.618	1.215	0.567	1.267
734	1.338	1.034	1.643	0.976	1.707
735	0.639	0.341	0.939	0.289	0.997
736	0.921	0.617	1.230	0.565	1.283
737	1.548	1.285	1.808	1.225	1.875
738	-0.513	-0.872	-0.156	-0.955	-0.065
739	1.786	1.470	2.099	1.399	2.179
740	1.345	1.040	1.652	0.981	1.717
741	-0.188	-0.542	0.164	-0.621	0.248
742	1.830	1.508	2.149	1.436	2.231
743	0.793	0.351	1.237	0.271	1.320
744	1.858	1.465	2.251	1.386	2.339
745	0.968	0.642	1.298	0.587	1.355
746	0.383	0.115	0.651	0.066	0.703
747	1.132	0.882	1.382	0.834	1.435
748	0.661	0.257	1.065	0.184	1.142
749	2.119	1.637	2.604	1.543	2.706
750	1.761	1.232	2.298	1.141	2.389
751	1.259	0.730	1.792	0.637	1.887
752	2.060	1.524	2.605	1.426	2.706
753	1.668	1.054	2.289	0.950	2.398
754	2.251	1.632	2.881	1.516	2.994
755	2.045	1.465	2.634	1.362	2.737
756	1.207	0.638	1.779	0.538	1.888

757	2.214	1.685	2.752	1.588	2.861
758	1.530	1.013	2.053	0.925	2.144
759	1.372	0.972	1.776	0.904	1.845
760	1.024	0.799	1.250	0.755	1.298
761	-0.156	-0.183	-0.127	-0.193	-0.119
762	-0.881	-1.055	-0.704	-1.099	-0.667
763	-0.359	-0.620	-0.099	-0.669	-0.052
764	-1.259	-1.465	-1.049	-1.519	-1.002
765	0.433	0.279	0.587	0.237	0.628
766	-0.135	-0.185	-0.085	-0.200	-0.071
767	0.370	0.294	0.445	0.271	0.469
768	-0.448	-0.547	-0.349	-0.570	-0.328
769	-0.610	-0.784	-0.439	-0.817	-0.407
770	-0.655	-0.754	-0.555	-0.786	-0.526
771	1.154	0.940	1.366	0.874	1.436
772	-0.983	-1.152	-0.811	-1.197	-0.772
773	-1.266	-1.495	-1.037	-1.554	-0.985
774	0.490	0.275	0.707	0.218	0.758
775	-0.533	-0.676	-0.392	-0.705	-0.366
776	-1.093	-1.276	-0.909	-1.324	-0.867
777	0.449	0.305	0.592	0.265	0.632
778	-0.103	-0.148	-0.059	-0.156	-0.051
779	-0.337	-0.544	-0.130	-0.584	-0.093
780	-1.537	-1.799	-1.271	-1.869	-1.210
781	0.008	-0.172	0.189	-0.215	0.228
782	0.065	-0.018	0.148	-0.037	0.166
783	-0.456	-0.562	-0.350	-0.586	-0.328
784	-0.249	-0.508	0.009	-0.559	0.057
785	-1.466	-1.877	-1.062	-1.952	-0.988
786	-1.988	-2.481	-1.501	-2.581	-1.409
787	-0.930	-1.440	-0.423	-1.537	-0.334
788	-1.702	-2.187	-1.226	-2.274	-1.138
789	-1.502	-2.060	-0.950	-2.156	-0.856
790	-2.002	-2.506	-1.505	-2.610	-1.414
791	-1.144	-1.416	-0.873	-1.473	-0.820
792	0.882	0.704	1.057	0.651	1.114
793	-0.122	-0.149	-0.094	-0.156	-0.086
794	-0.410	-0.481	-0.337	-0.500	-0.321
795	0.116	0.057	0.174	0.042	0.188
796	-0.080	-0.104	-0.055	-0.113	-0.048
797	0.356	0.256	0.455	0.228	0.484
798	-0.669	-0.839	-0.500	-0.874	-0.468
799	-0.920	-1.313	-0.531	-1.381	-0.465
800	-2.200	-2.634	-1.762	-2.739	-1.670
801	-0.381	-0.832	0.071	-0.925	0.157
802	-1.584	-1.871	-1.296	-1.945	-1.228
803	-0.003	-0.191	0.185	-0.235	0.225
804	0.014	-0.013	0.040	-0.018	0.045

805	0.169	0.062	0.277	0.036	0.302
806	-0.913	-1.064	-0.759	-1.103	-0.725
807	0.011	-0.248	0.271	-0.311	0.328
808	-1.336	-1.596	-1.073	-1.660	-1.017
809	-0.571	-0.908	-0.236	-0.972	-0.175
810	-1.204	-1.523	-0.890	-1.585	-0.834
811	-0.995	-1.279	-0.715	-1.330	-0.664
812	-0.350	-0.519	-0.183	-0.549	-0.154
813	-0.001	-0.128	0.126	-0.158	0.153
814	-0.641	-0.737	-0.543	-0.768	-0.517
815	0.380	0.322	0.437	0.309	0.452
816	1.031	0.877	1.182	0.831	1.227
817	-1.419	-1.632	-1.201	-1.698	-1.138
818	0.642	0.371	0.916	0.296	0.982
819	-1.402	-1.616	-1.184	-1.680	-1.122
820	1.042	0.896	1.183	0.855	1.227
821	0.446	0.229	0.665	0.189	0.707
822	0.919	0.698	1.143	0.659	1.186
823	0.921	0.763	1.078	0.728	1.118
824	-0.455	-0.571	-0.338	-0.608	-0.302
825	0.058	-0.032	0.147	-0.051	0.169
826	1.300	1.115	1.483	1.068	1.539
827	-0.214	-0.345	-0.085	-0.375	-0.052
828	0.143	0.064	0.223	0.044	0.241
829	-0.706	-0.826	-0.583	-0.860	-0.549
830	0.950	0.816	1.082	0.777	1.122
831	-0.185	-0.347	-0.024	-0.385	0.017
832	0.884	0.757	1.008	0.720	1.045
833	-0.563	-0.674	-0.451	-0.702	-0.426
834	-0.948	-1.257	-0.643	-1.310	-0.591
835	-1.311	-1.737	-0.893	-1.809	-0.820
836	-1.518	-2.046	-0.999	-2.137	-0.907
837	-1.952	-2.533	-1.380	-2.637	-1.275
838	-1.862	-2.391	-1.343	-2.486	-1.246
839	-0.904	-1.344	-0.467	-1.425	-0.391
840	-1.090	-1.504	-0.680	-1.576	-0.610
841	-1.762	-2.124	-1.398	-2.210	-1.323
842	-0.128	-0.419	0.164	-0.485	0.225
843	-0.525	-0.729	-0.323	-0.764	-0.289
844	-0.948	-1.195	-0.705	-1.245	-0.661
845	-0.697	-0.920	-0.476	-0.958	-0.438
846	-0.396	-0.501	-0.293	-0.523	-0.273
847	0.563	0.304	0.824	0.237	0.885
848	-1.752	-2.104	-1.399	-2.187	-1.325
849	-1.639	-2.115	-1.172	-2.202	-1.083
850	-0.963	-1.480	-0.449	-1.580	-0.359
851	-2.183	-2.646	-1.722	-2.753	-1.622
852	-0.636	-1.111	-0.164	-1.199	-0.077

853	-1.597	-1.913	-1.279	-1.989	-1.211
854	-0.051	-0.374	0.272	-0.449	0.340
855	-1.057	-1.317	-0.799	-1.372	-0.749
856	-1.010	-1.295	-0.730	-1.348	-0.679
857	-0.513	-0.718	-0.310	-0.753	-0.276
858	-0.087	-0.340	0.168	-0.398	0.221
859	-1.446	-1.754	-1.138	-1.826	-1.071
860	-0.887	-1.345	-0.433	-1.431	-0.352
861	-2.049	-2.473	-1.624	-2.573	-1.536
862	-0.626	-0.951	-0.302	-1.012	-0.245
863	-0.281	-0.470	-0.092	-0.506	-0.058
864	-0.476	-0.682	-0.273	-0.717	-0.239
865	-0.949	-1.216	-0.687	-1.267	-0.639
866	-0.901	-1.195	-0.611	-1.246	-0.562
867	-0.787	-1.051	-0.528	-1.095	-0.483
868	-0.656	-0.838	-0.476	-0.873	-0.444
869	-0.123	-0.184	-0.063	-0.195	-0.053
870	0.461	0.385	0.536	0.363	0.559
871	-0.416	-0.510	-0.320	-0.542	-0.291
872	0.432	0.323	0.542	0.302	0.562
873	1.246	1.068	1.420	1.023	1.474
874	-0.561	-0.696	-0.424	-0.739	-0.382
875	0.106	0.064	0.147	0.054	0.157
876	0.255	0.126	0.385	0.093	0.415
877	-1.141	-1.349	-0.932	-1.402	-0.884
878	-0.610	-0.854	-0.369	-0.896	-0.328
879	-0.665	-0.778	-0.550	-0.808	-0.524
880	0.820	0.654	0.982	0.605	1.035
881	-0.752	-0.885	-0.617	-0.925	-0.578
882	0.456	0.394	0.517	0.376	0.535
883	0.419	0.364	0.473	0.348	0.490
884	-0.646	-0.741	-0.548	-0.773	-0.519
885	0.048	0.038	0.058	0.036	0.060
886	0.565	0.473	0.656	0.451	0.680
887	0.399	0.338	0.459	0.325	0.475
888	-0.376	-0.452	-0.298	-0.477	-0.275
889	0.197	0.102	0.293	0.085	0.311
890	1.207	1.014	1.397	0.970	1.448
891	0.132	-0.065	0.327	-0.106	0.372
892	0.608	0.471	0.746	0.446	0.774
893	0.544	0.377	0.714	0.348	0.743
894	0.568	0.387	0.751	0.356	0.783
895	0.807	0.664	0.950	0.633	0.984
896	-0.148	-0.314	0.016	-0.352	0.057
897	0.772	0.640	0.902	0.610	0.936
898	0.486	0.330	0.643	0.303	0.671
899	0.578	0.502	0.651	0.480	0.675
900	-0.973	-1.153	-0.790	-1.209	-0.738

901	0.969	0.832	1.105	0.798	1.145
902	0.906	0.766	1.044	0.734	1.081
903	-0.772	-0.994	-0.548	-1.063	-0.486
904	1.359	1.157	1.556	1.100	1.613
905	-0.660	-0.784	-0.534	-0.822	-0.497
906	-0.016	-0.146	0.114	-0.176	0.142
907	-0.701	-0.822	-0.578	-0.856	-0.544
908	1.155	0.999	1.309	0.952	1.359
909	0.046	-0.094	0.187	-0.125	0.220
910	0.358	0.312	0.404	0.300	0.418
911	-0.097	-0.118	-0.076	-0.124	-0.071
912	-0.153	-0.276	-0.030	-0.299	-0.008
913	-0.868	-1.021	-0.712	-1.062	-0.676
914	-0.052	-0.154	0.050	-0.174	0.069
915	0.169	0.071	0.268	0.046	0.291
916	-0.584	-0.748	-0.423	-0.780	-0.394
917	-1.026	-1.222	-0.828	-1.272	-0.784
918	0.093	-0.079	0.266	-0.119	0.304
919	-0.422	-0.506	-0.337	-0.527	-0.319
920	-0.088	-0.172	-0.004	-0.188	0.011
921	-0.233	-0.273	-0.193	-0.285	-0.181
922	0.514	0.442	0.585	0.422	0.606
923	-0.183	-0.233	-0.131	-0.250	-0.116
924	0.182	0.093	0.270	0.071	0.291
925	-0.619	-0.722	-0.514	-0.750	-0.490
926	0.021	-0.159	0.201	-0.203	0.241
927	-0.897	-1.086	-0.707	-1.131	-0.668
928	-0.598	-0.805	-0.394	-0.841	-0.358
929	-0.410	-0.538	-0.284	-0.562	-0.260
930	-0.002	-0.074	0.071	-0.090	0.086
931	-0.059	-0.087	-0.031	-0.092	-0.026
932	0.157	-0.014	0.328	-0.055	0.367
933	-1.399	-1.648	-1.148	-1.713	-1.090
934	-0.463	-0.796	-0.130	-0.859	-0.070
935	-1.327	-1.575	-1.075	-1.639	-1.020
936	0.099	-0.191	0.389	-0.260	0.452
937	-0.979	-1.317	-0.647	-1.375	-0.588
938	-1.974	-2.479	-1.479	-2.581	-1.389
939	-1.599	-2.156	-1.051	-2.251	-0.955
940	-1.771	-2.132	-1.408	-2.219	-1.333
941	0.649	0.255	1.044	0.155	1.136
942	-1.501	-1.863	-1.140	-1.940	-1.070
943	-2.148	-2.665	-1.634	-2.773	-1.535
944	-1.092	-1.589	-0.600	-1.677	-0.515
945	-1.316	-1.735	-0.901	-1.807	-0.831
946	-1.276	-1.638	-0.920	-1.704	-0.855
947	-0.627	-0.878	-0.378	-0.922	-0.336
948	-0.278	-0.427	-0.131	-0.454	-0.105

949	-0.171	-0.340	-0.001	-0.373	0.031
950	-0.810	-1.095	-0.529	-1.143	-0.480
951	-1.548	-1.920	-1.179	-1.998	-1.107
952	-1.176	-1.403	-0.948	-1.458	-0.899
953	0.907	0.785	1.027	0.749	1.066
954	0.764	0.566	0.965	0.529	1.002
955	0.665	0.552	0.777	0.526	0.806
956	-0.437	-0.534	-0.338	-0.567	-0.307
957	0.279	0.222	0.334	0.206	0.352
958	-0.039	-0.074	-0.004	-0.080	0.002
959	-0.429	-0.498	-0.359	-0.519	-0.341
960	0.177	0.151	0.204	0.142	0.213
961	0.356	0.293	0.418	0.274	0.439
962	-0.383	-0.595	-0.174	-0.635	-0.137
963	-1.764	-2.187	-1.343	-2.277	-1.261
964	-1.609	-2.177	-1.048	-2.276	-0.951
965	-1.827	-2.466	-1.195	-2.577	-1.086
966	-2.263	-3.011	-1.529	-3.138	-1.397
967	-2.976	-3.594	-2.357	-3.740	-2.227
968	0.075	-0.482	0.632	-0.616	0.754
969	-1.691	-2.065	-1.318	-2.150	-1.241
970	-1.250	-1.704	-0.801	-1.783	-0.724
971	-1.456	-1.761	-1.151	-1.833	-1.088
972	0.334	0.065	0.606	-0.002	0.668
973	-0.791	-0.973	-0.610	-1.014	-0.573
974	-0.814	-1.102	-0.531	-1.151	-0.481
975	-0.946	-1.310	-0.587	-1.373	-0.526
976	-1.565	-1.936	-1.195	-2.015	-1.123
977	-0.804	-1.094	-0.518	-1.144	-0.468
978	-0.178	-0.385	0.030	-0.427	0.069
979	-0.658	-0.830	-0.488	-0.865	-0.456
980	-0.407	-0.684	-0.130	-0.736	-0.080
981	-1.624	-1.869	-1.375	-1.942	-1.314
982	0.945	0.701	1.187	0.633	1.262
983	-0.540	-0.624	-0.456	-0.650	-0.433
984	-0.395	-0.544	-0.250	-0.569	-0.224
985	-0.282	-0.546	-0.019	-0.597	0.030
986	-1.565	-1.935	-1.196	-2.013	-1.124
987	-1.480	-1.859	-1.107	-1.936	-1.039
988	-0.323	-0.657	0.010	-0.724	0.073
989	-1.076	-1.333	-0.821	-1.387	-0.771
990	-0.695	-0.934	-0.460	-0.975	-0.418
991	-0.371	-0.528	-0.217	-0.555	-0.191
992	-0.188	-0.304	-0.073	-0.326	-0.053
993	-0.509	-0.610	-0.406	-0.643	-0.375
994	1.128	0.930	1.324	0.887	1.374
995	1.378	1.184	1.572	1.132	1.630
996	-1.347	-1.560	-1.131	-1.623	-1.067

997	0.320	0.105	0.537	0.050	0.587
998	-0.771	-0.911	-0.629	-0.948	-0.596
999	-0.342	-0.517	-0.169	-0.548	-0.138
1000	-0.395	-0.603	-0.189	-0.642	-0.153
1001	-1.171	-1.366	-0.975	-1.417	-0.930
1002	0.404	0.245	0.563	0.201	0.603
1003	-0.245	-0.285	-0.204	-0.298	-0.192
1004	0.043	0.007	0.079	-0.002	0.087
1005	0.180	-0.009	0.370	-0.055	0.413
1006	-1.728	-1.999	-1.453	-2.074	-1.389
1007	-0.091	-0.266	0.085	-0.305	0.120
1008	0.232	0.193	0.269	0.181	0.282
1009	0.111	0.048	0.175	0.032	0.190
1010	-0.655	-0.786	-0.522	-0.818	-0.494
1011	-0.382	-0.588	-0.179	-0.626	-0.143
1012	-0.824	-1.042	-0.610	-1.085	-0.572
1013	-0.758	-0.898	-0.618	-0.935	-0.585
1014	0.768	0.552	0.983	0.493	1.048
1015	-1.238	-1.427	-1.045	-1.485	-0.988
1016	0.725	0.614	0.833	0.584	0.864
1017	0.286	0.106	0.467	0.073	0.501
1018	1.164	1.006	1.320	0.962	1.371
1019	-0.848	-0.983	-0.711	-1.022	-0.672
1020	-0.122	-0.208	-0.036	-0.225	-0.021
1021	0.137	0.086	0.189	0.073	0.201
1022	-0.156	-0.209	-0.103	-0.219	-0.093
1023	-0.243	-0.375	-0.113	-0.399	-0.090
1024	-0.743	-0.913	-0.574	-0.952	-0.539
1025	-0.453	-0.596	-0.312	-0.622	-0.286
1026	-0.004	-0.113	0.105	-0.138	0.128
1027	-0.330	-0.408	-0.253	-0.426	-0.236
1028	-0.108	-0.232	0.017	-0.257	0.040
1029	-0.538	-0.713	-0.364	-0.743	-0.334
1030	-0.747	-1.036	-0.462	-1.085	-0.414
1031	-1.164	-1.623	-0.710	-1.704	-0.633
1032	-2.481	-2.947	-2.011	-3.062	-1.910
1033	0.032	-0.430	0.494	-0.539	0.595
1034	-1.446	-1.766	-1.126	-1.839	-1.060
1035	-0.950	-1.403	-0.502	-1.486	-0.422
1036	-1.854	-2.316	-1.399	-2.410	-1.313
1037	-1.291	-1.696	-0.891	-1.765	-0.823
1038	-0.668	-0.843	-0.496	-0.879	-0.464
1039	0.651	0.530	0.770	0.493	0.809
1040	-0.159	-0.200	-0.117	-0.214	-0.105
1041	-0.084	-0.104	-0.064	-0.109	-0.059
1042	0.104	0.033	0.174	0.019	0.189
1043	0.843	0.723	0.960	0.694	0.995
1044	-0.186	-0.343	-0.031	-0.379	0.009

1045	0.845	0.724	0.963	0.689	0.998
1046	-0.631	-0.729	-0.531	-0.760	-0.501
1047	0.114	-0.115	0.344	-0.168	0.393
1048	-1.289	-1.640	-0.943	-1.709	-0.880
1049	-1.912	-2.390	-1.441	-2.486	-1.353
1050	-1.215	-1.630	-0.807	-1.701	-0.734
1051	-0.643	-0.923	-0.367	-0.972	-0.319
1052	-0.515	-0.721	-0.311	-0.756	-0.277
1053	-0.519	-0.716	-0.324	-0.750	-0.291
1054	-0.802	-0.924	-0.678	-0.961	-0.646
1055	0.715	0.556	0.875	0.526	0.908
1056	1.671	1.286	2.060	1.212	2.140
1057	1.432	0.955	1.915	0.873	2.000
1058	1.588	1.089	2.096	1.000	2.183
1059	1.773	1.244	2.308	1.154	2.400
1060	1.607	0.992	2.228	0.888	2.335
1061	2.527	1.840	3.225	1.710	3.352
1062	2.446	1.724	3.177	1.601	3.302
1063	2.014	1.369	2.669	1.255	2.782
1064	1.777	1.263	2.296	1.175	2.385
1065	1.001	0.536	1.468	0.454	1.557
1066	1.731	1.343	2.119	1.268	2.201
1067	0.868	0.544	1.196	0.489	1.253
1068	0.599	0.349	0.851	0.304	0.897
1069	0.872	0.595	1.152	0.547	1.201
1070	1.257	0.956	1.564	0.901	1.624
1071	0.837	0.557	1.120	0.510	1.169
1072	0.838	0.692	0.983	0.659	1.020
1073	-0.479	-0.612	-0.344	-0.653	-0.306
1074	0.375	0.309	0.440	0.296	0.456
1075	0.582	0.368	0.798	0.331	0.836
1076	1.374	1.120	1.625	1.066	1.688
1077	0.286	0.040	0.532	-0.007	0.583
1078	0.800	0.644	0.956	0.611	0.993
1079	0.296	0.144	0.448	0.116	0.477
1080	0.383	0.193	0.574	0.158	0.611
1081	1.116	0.821	1.415	0.766	1.469
1082	1.400	1.020	1.787	0.949	1.856
1083	1.281	0.900	1.667	0.835	1.733
1084	0.990	0.602	1.382	0.535	1.451
1085	1.508	1.118	1.906	1.047	1.979
1086	1.305	0.959	1.657	0.894	1.721
1087	0.563	0.274	0.853	0.221	0.909
1088	0.925	0.693	1.160	0.651	1.205
1089	0.748	0.541	0.958	0.505	0.994
1090	0.344	0.118	0.570	0.076	0.614
1091	1.119	0.896	1.343	0.848	1.395
1092	0.698	0.536	0.862	0.507	0.895

1093	-0.135	-0.227	-0.044	-0.248	-0.020
1094	0.183	0.156	0.210	0.148	0.219
1095	-0.046	-0.095	0.002	-0.104	0.011
1096	-0.587	-0.693	-0.480	-0.725	-0.449
1097	1.261	0.974	1.542	0.888	1.633
1098	-1.860	-2.179	-1.537	-2.264	-1.463
1099	-1.536	-2.011	-1.066	-2.093	-0.985
1100	-1.378	-1.667	-1.087	-1.736	-1.026
1101	0.748	0.415	1.085	0.324	1.164
1102	-1.656	-1.895	-1.413	-1.972	-1.347
1103	0.293	0.147	0.440	0.109	0.474
1104	0.091	-0.075	0.256	-0.110	0.295
1105	1.446	1.195	1.696	1.137	1.760
1106	0.772	0.621	0.922	0.589	0.957
1107	-0.538	-0.647	-0.429	-0.674	-0.405
1108	-1.106	-1.367	-0.846	-1.421	-0.796
1109	-0.838	-1.041	-0.636	-1.084	-0.596
1110	0.177	0.069	0.285	0.042	0.310
1111	0.214	0.038	0.392	-0.006	0.431
1112	-1.519	-1.827	-1.208	-1.902	-1.144
1113	-1.175	-1.620	-0.736	-1.697	-0.660
1114	-1.567	-1.962	-1.178	-2.042	-1.106
1115	-0.768	-1.039	-0.502	-1.085	-0.455
1116	0.012	-0.174	0.198	-0.218	0.238
1117	-0.510	-0.716	-0.307	-0.751	-0.273
1118	-1.096	-1.463	-0.736	-1.525	-0.673
1119	-1.841	-2.218	-1.461	-2.309	-1.383
1120	-0.273	-0.564	0.018	-0.622	0.073
1121	-0.464	-0.592	-0.338	-0.618	-0.315
1122	-0.162	-0.226	-0.098	-0.237	-0.087
1123	0.215	0.158	0.272	0.143	0.288
1124	-0.269	-0.320	-0.218	-0.335	-0.203
1125	0.243	0.181	0.305	0.171	0.316
1126	0.858	0.742	0.971	0.709	1.008
1127	-0.696	-0.799	-0.591	-0.833	-0.562
1128	-0.305	-0.470	-0.141	-0.501	-0.112
1129	-0.390	-0.686	-0.094	-0.741	-0.041
1130	-1.944	-2.322	-1.563	-2.414	-1.482
1131	-0.669	-1.093	-0.246	-1.173	-0.169
1132	-1.273	-1.655	-0.897	-1.724	-0.827
1133	-1.489	-1.800	-1.177	-1.873	-1.113
1134	0.286	-0.027	0.602	-0.103	0.674
1135	-1.233	-1.446	-1.018	-1.503	-0.968
1136	-0.343	-0.537	-0.150	-0.575	-0.116
1137	-0.114	-0.311	0.084	-0.354	0.124
1138	-1.000	-1.298	-0.707	-1.351	-0.652
1139	-1.512	-1.899	-1.132	-1.977	-1.062
1140	-1.031	-1.355	-0.711	-1.410	-0.656

1141	-0.305	-0.566	-0.045	-0.616	0.004
1142	-0.731	-1.036	-0.430	-1.089	-0.378
1143	-1.395	-1.934	-0.862	-2.026	-0.773
1144	-2.774	-3.509	-2.052	-3.651	-1.921
1145	-2.515	-3.315	-1.727	-3.451	-1.592
1146	-1.970	-2.789	-1.159	-2.932	-1.021
1147	-2.938	-3.801	-2.089	-3.956	-1.931
1148	-3.102	-3.835	-2.372	-3.990	-2.230
1149	-0.443	-1.050	0.166	-1.182	0.289
1150	-1.562	-2.104	-1.027	-2.197	-0.934
1151	-2.563	-3.283	-1.854	-3.413	-1.725
1152	-2.415	-3.218	-1.627	-3.354	-1.486
1153	-2.559	-3.218	-1.911	-3.349	-1.794
1154	-1.040	-1.396	-0.690	-1.456	-0.627
1155	0.709	0.383	1.038	0.297	1.114
1156	-1.553	-1.867	-1.237	-1.942	-1.172
1157	-1.711	-2.060	-1.359	-2.144	-1.287
1158	0.289	-0.040	0.619	-0.118	0.694
1159	-1.094	-1.311	-0.875	-1.364	-0.828
1160	-0.662	-0.943	-0.384	-0.992	-0.336
1161	-0.751	-1.083	-0.422	-1.141	-0.367
1162	-1.623	-1.949	-1.296	-2.027	-1.227
1163	-0.330	-0.542	-0.120	-0.582	-0.081
1164	0.233	0.024	0.444	-0.027	0.492
1165	-1.204	-1.503	-0.908	-1.565	-0.851
1166	-1.570	-2.005	-1.143	-2.086	-1.065
1167	-1.338	-1.682	-1.000	-1.752	-0.938
1168	-0.070	-0.328	0.190	-0.388	0.244
1169	-0.704	-0.854	-0.552	-0.890	-0.521
1170	-0.270	-0.405	-0.136	-0.429	-0.113
1171	-0.259	-0.309	-0.208	-0.323	-0.196
1172	0.424	0.335	0.510	0.309	0.538
1173	-0.418	-0.486	-0.350	-0.506	-0.332
1174	-0.141	-0.253	-0.030	-0.274	-0.010
1175	-0.298	-0.495	-0.102	-0.533	-0.066
1176	-1.417	-1.632	-1.197	-1.695	-1.145
1177	0.536	0.454	0.616	0.432	0.639
1178	0.890	0.742	1.037	0.708	1.075
1179	0.061	-0.056	0.178	-0.081	0.207
1180	0.271	0.237	0.306	0.229	0.315
1181	-0.052	-0.067	-0.036	-0.071	-0.033
1182	-0.191	-0.238	-0.144	-0.249	-0.135
1183	-0.115	-0.137	-0.092	-0.145	-0.085
1184	0.447	0.389	0.504	0.372	0.522
1185	-0.146	-0.212	-0.079	-0.231	-0.060
1186	0.349	0.302	0.395	0.288	0.408
1187	-0.066	-0.121	-0.011	-0.132	-0.001
1188	-0.540	-0.736	-0.348	-0.769	-0.314

1189	-0.954	-1.362	-0.551	-1.433	-0.482
1190	-2.205	-2.786	-1.633	-2.898	-1.532
1191	-2.039	-2.726	-1.363	-2.844	-1.242
1192	-2.174	-2.791	-1.568	-2.903	-1.455
1193	-1.128	-1.780	-0.479	-1.905	-0.361
1194	-2.619	-3.250	-1.992	-3.382	-1.871
1195	-1.801	-2.411	-1.200	-2.516	-1.093
1196	-1.053	-1.650	-0.459	-1.765	-0.352
1197	-2.454	-3.071	-1.845	-3.197	-1.734
1198	-1.834	-2.534	-1.143	-2.654	-1.027
1199	-2.216	-2.873	-1.569	-2.991	-1.449
1200	-1.748	-2.425	-1.079	-2.543	-0.966
1201	-2.162	-2.857	-1.477	-2.975	-1.359
1202	-2.419	-3.064	-1.784	-3.189	-1.669
1203	-1.216	-1.746	-0.692	-1.840	-0.602
1204	-1.167	-1.563	-0.778	-1.630	-0.709
1205	-0.992	-1.340	-0.649	-1.400	-0.588
1206	-0.776	-1.175	-0.380	-1.250	-0.310
1207	-1.673	-2.206	-1.147	-2.298	-1.058
1208	-2.379	-2.993	-1.776	-3.115	-1.667
1209	-1.422	-2.052	-0.799	-2.163	-0.693
1210	-1.931	-2.558	-1.314	-2.664	-1.207
1211	-2.260	-2.885	-1.646	-3.000	-1.534
1212	-1.323	-1.948	-0.704	-2.062	-0.593
1213	-1.952	-2.675	-1.237	-2.800	-1.115
1214	-3.371	-4.138	-2.610	-4.299	-2.461
1215	-1.370	-2.151	-0.594	-2.300	-0.453
1216	-2.399	-3.116	-1.692	-3.243	-1.566
1217	-2.468	-3.280	-1.671	-3.419	-1.530
1218	-2.610	-3.381	-1.851	-3.519	-1.711
1219	-1.925	-2.599	-1.259	-2.716	-1.144
1220	-1.506	-2.104	-0.913	-2.210	-0.813
1221	-1.884	-2.471	-1.304	-2.571	-1.205
1222	-1.835	-2.421	-1.257	-2.522	-1.158
1223	-1.610	-2.130	-1.098	-2.218	-1.010
1224	-0.956	-1.587	-0.328	-1.704	-0.215
1225	-3.111	-3.793	-2.430	-3.947	-2.291
1226	-1.989	-2.582	-1.403	-2.689	-1.297
1227	-0.240	-0.774	0.295	-0.895	0.408
1228	-2.229	-2.710	-1.750	-2.820	-1.649
1229	-1.309	-1.968	-0.655	-2.092	-0.538
1230	-2.649	-3.340	-1.968	-3.473	-1.847
1231	-2.110	-2.859	-1.370	-2.990	-1.243
1232	-2.214	-2.875	-1.561	-2.992	-1.444
1233	-1.529	-2.155	-0.908	-2.263	-0.803
1234	-1.987	-2.537	-1.447	-2.639	-1.349
1235	-1.286	-1.782	-0.796	-1.867	-0.714
1236	-1.291	-1.652	-0.936	-1.719	-0.871

1237	-0.361	-0.744	0.023	-0.822	0.095
1238	-1.787	-2.107	-1.467	-2.189	-1.393
1239	-0.096	-0.357	0.167	-0.417	0.222
1240	-0.370	-0.511	-0.231	-0.535	-0.207
1241	-0.496	-0.675	-0.319	-0.706	-0.288
1242	-0.761	-0.906	-0.615	-0.944	-0.582
1243	0.350	0.135	0.566	0.079	0.617
1244	-1.038	-1.264	-0.813	-1.317	-0.764
1245	-1.002	-1.378	-0.630	-1.443	-0.566
1246	-1.644	-1.954	-1.329	-2.031	-1.262
1247	0.374	0.039	0.712	-0.044	0.787
1248	-1.238	-1.501	-0.974	-1.563	-0.918
1249	-1.073	-1.465	-0.685	-1.533	-0.619
1250	-1.403	-1.766	-1.047	-1.839	-0.982
1251	-0.663	-0.985	-0.345	-1.043	-0.288
1252	-0.806	-1.069	-0.547	-1.115	-0.502
1253	-0.676	-0.975	-0.380	-1.026	-0.330
1254	-1.187	-1.494	-0.885	-1.556	-0.830
1255	-0.799	-1.086	-0.517	-1.135	-0.468
1256	-0.674	-0.825	-0.523	-0.860	-0.491
1257	0.492	0.273	0.713	0.215	0.765
1258	-1.224	-1.424	-1.020	-1.477	-0.974
1259	-0.244	-0.571	0.084	-0.640	0.149
1260	-1.526	-1.851	-1.201	-1.927	-1.131
1261	-0.892	-1.237	-0.550	-1.296	-0.493
1262	-0.762	-1.046	-0.481	-1.095	-0.434
1263	-0.774	-1.037	-0.516	-1.081	-0.471
1264	-0.672	-0.954	-0.394	-1.003	-0.346
1265	-1.155	-1.379	-0.928	-1.433	-0.880
1266	0.143	-0.024	0.311	-0.065	0.350
1267	-0.025	-0.259	0.210	-0.314	0.260
1268	-2.026	-2.365	-1.682	-2.457	-1.603
1269	-0.255	-0.593	0.083	-0.664	0.149
1270	-0.778	-1.007	-0.553	-1.048	-0.511
1271	-0.716	-0.996	-0.438	-1.044	-0.391
1272	-0.907	-1.281	-0.538	-1.346	-0.474
1273	-1.716	-2.171	-1.267	-2.259	-1.188
1274	-1.484	-1.923	-1.053	-2.001	-0.972
1275	-0.789	-1.134	-0.447	-1.194	-0.389
1276	-0.677	-1.009	-0.348	-1.070	-0.290
1277	-1.434	-1.790	-1.082	-1.863	-1.015
1278	-0.797	-1.292	-0.302	-1.385	-0.212
1279	-2.339	-2.854	-1.824	-2.970	-1.719
1280	-1.271	-1.797	-0.749	-1.888	-0.661
1281	-1.279	-1.720	-0.844	-1.796	-0.768
1282	-1.221	-1.681	-0.766	-1.761	-0.688
1283	-1.575	-2.091	-1.068	-2.179	-0.980
1284	-1.817	-2.370	-1.271	-2.465	-1.176

1285	-1.559	-2.130	-0.993	-2.229	-0.897
1286	-1.876	-2.391	-1.370	-2.488	-1.277
1287	-1.036	-1.536	-0.541	-1.628	-0.454
1288	-1.620	-2.080	-1.168	-2.163	-1.086
1289	-1.329	-1.788	-0.877	-1.867	-0.797
1290	-1.142	-1.596	-0.692	-1.676	-0.616
1291	-1.520	-2.030	-1.019	-2.117	-0.929
1292	-2.077	-2.512	-1.641	-2.615	-1.549
1293	0.063	-0.401	0.526	-0.511	0.627
1294	-1.929	-2.256	-1.597	-2.343	-1.520
1295	-0.114	-0.479	0.251	-0.562	0.328
1296	-1.117	-1.436	-0.804	-1.494	-0.747
1297	-1.341	-1.778	-0.910	-1.852	-0.836
1298	-1.590	-2.016	-1.171	-2.099	-1.096
1299	-0.901	-1.229	-0.577	-1.286	-0.521
1300	-0.313	-0.615	-0.012	-0.674	0.043
1301	-1.244	-1.592	-0.902	-1.657	-0.840
1302	-1.512	-1.877	-1.149	-1.954	-1.078
1303	-0.430	-0.792	-0.069	-0.861	-0.002
1304	-1.134	-1.525	-0.749	-1.592	-0.681
1305	-1.873	-2.318	-1.429	-2.412	-1.344
1306	-0.988	-1.385	-0.594	-1.454	-0.528
1307	-0.781	-1.057	-0.510	-1.104	-0.462
1308	-0.527	-0.754	-0.301	-0.794	-0.263
1309	-0.593	-0.824	-0.364	-0.864	-0.325
1310	-0.883	-1.118	-0.651	-1.165	-0.609
1311	-0.464	-0.738	-0.192	-0.791	-0.142
1312	-1.105	-1.369	-0.841	-1.426	-0.789
1313	-0.499	-0.893	-0.107	-0.968	-0.034
1314	-1.965	-2.388	-1.544	-2.485	-1.454
1315	-1.070	-1.524	-0.621	-1.603	-0.544
1316	-1.158	-1.567	-0.756	-1.637	-0.686
1317	-1.348	-1.742	-0.960	-1.813	-0.887
1318	-1.041	-1.364	-0.722	-1.419	-0.667
1319	-0.491	-0.697	-0.287	-0.733	-0.253
1320	-0.131	-0.306	0.043	-0.341	0.076
1321	-0.656	-0.888	-0.428	-0.928	-0.388
1322	-1.295	-1.545	-1.044	-1.605	-0.990
1323	-0.054	-0.209	0.101	-0.243	0.133
1324	0.128	0.049	0.208	0.029	0.226
1325	-0.414	-0.504	-0.324	-0.526	-0.305
1326	-0.271	-0.424	-0.118	-0.453	-0.091
1327	-0.508	-0.799	-0.220	-0.854	-0.169
1328	-1.862	-2.234	-1.488	-2.322	-1.410
1329	-0.718	-1.055	-0.385	-1.115	-0.326
1330	-0.494	-0.754	-0.236	-0.803	-0.189
1331	-0.854	-1.188	-0.524	-1.246	-0.468
1332	-1.597	-2.014	-1.187	-2.096	-1.112

1333	-1.405	-1.735	-1.076	-1.805	-1.012
1334	0.160	-0.101	0.422	-0.164	0.481
1335	-0.720	-0.878	-0.563	-0.915	-0.529
1336	-0.575	-0.726	-0.425	-0.756	-0.397
1337	0.064	-0.099	0.227	-0.138	0.263
1338	-0.662	-0.841	-0.485	-0.877	-0.453
1339	-0.829	-1.084	-0.578	-1.130	-0.532
1340	-0.932	-1.113	-0.749	-1.158	-0.710
1341	0.471	0.295	0.646	0.247	0.692
1342	-0.614	-0.705	-0.521	-0.735	-0.494
1343	0.257	0.154	0.360	0.127	0.384
1344	-0.318	-0.374	-0.261	-0.389	-0.248
1345	-0.008	-0.141	0.126	-0.172	0.154
1346	-0.707	-0.906	-0.511	-0.945	-0.475
1347	-0.928	-1.221	-0.639	-1.271	-0.589
1348	-0.924	-1.302	-0.549	-1.368	-0.485
1349	-1.691	-2.040	-1.340	-2.123	-1.268
1350	-0.220	-0.552	0.113	-0.624	0.180
1351	-1.003	-1.228	-0.779	-1.280	-0.733
1352	-0.444	-0.703	-0.187	-0.752	-0.141
1353	-1.050	-1.212	-0.885	-1.259	-0.846
1354	0.763	0.654	0.869	0.622	0.901
1355	0.416	0.291	0.542	0.270	0.564
1356	0.384	0.323	0.445	0.309	0.460
1357	-0.182	-0.215	-0.148	-0.225	-0.140
1358	-0.327	-0.382	-0.271	-0.398	-0.257
1359	0.297	0.234	0.360	0.215	0.379
1360	-0.137	-0.170	-0.105	-0.178	-0.097
1361	-0.298	-0.346	-0.249	-0.361	-0.234
1362	0.553	0.456	0.649	0.426	0.681
1363	-0.543	-0.656	-0.427	-0.694	-0.392
1364	0.691	0.575	0.805	0.542	0.840
1365	-0.421	-0.491	-0.349	-0.513	-0.328
1366	-0.025	-0.055	0.005	-0.061	0.011
1367	0.224	0.194	0.254	0.186	0.262
1368	0.122	-0.048	0.293	-0.089	0.332
1369	-1.653	-1.948	-1.357	-2.024	-1.289
1370	-0.706	-0.979	-0.436	-1.026	-0.390
1371	-0.177	-0.365	0.010	-0.402	0.044
1372	-0.619	-0.751	-0.486	-0.783	-0.459
1373	-0.171	-0.259	-0.084	-0.275	-0.069
1374	0.127	0.052	0.203	0.033	0.220
1375	-0.419	-0.484	-0.354	-0.505	-0.334
1376	0.401	0.301	0.500	0.273	0.531
1377	-0.438	-0.511	-0.363	-0.532	-0.345
1378	-0.233	-0.322	-0.145	-0.337	-0.130
1379	-0.018	-0.145	0.109	-0.174	0.136
1380	-0.809	-0.935	-0.681	-0.972	-0.650

1381	0.225	0.186	0.263	0.174	0.276
1382	0.602	0.523	0.679	0.500	0.704
1383	-0.407	-0.469	-0.342	-0.490	-0.324
1384	-0.071	-0.201	0.059	-0.228	0.085
1385	-0.724	-0.848	-0.598	-0.882	-0.569
1386	0.103	-0.014	0.220	-0.042	0.247
1387	-0.245	-0.310	-0.181	-0.323	-0.168
1388	-0.175	-0.289	-0.062	-0.311	-0.042
1389	-0.572	-0.687	-0.457	-0.714	-0.432
1390	0.083	-0.136	0.303	-0.188	0.351
1391	-1.237	-1.500	-0.974	-1.563	-0.918
1392	-1.048	-1.328	-0.773	-1.382	-0.724
1393	-0.242	-0.444	-0.041	-0.482	-0.004
1394	-0.324	-0.498	-0.151	-0.531	-0.120
1395	-0.742	-1.020	-0.467	-1.069	-0.421
1396	-1.406	-1.761	-1.055	-1.833	-0.990
1397	-1.045	-1.380	-0.714	-1.438	-0.658
1398	-0.567	-0.822	-0.314	-0.867	-0.271
1399	-0.560	-0.777	-0.347	-0.814	-0.310
1400	-0.689	-0.898	-0.483	-0.936	-0.445
1401	-0.542	-0.734	-0.354	-0.767	-0.321
1402	-0.337	-0.550	-0.125	-0.590	-0.087
1403	-1.061	-1.239	-0.883	-1.285	-0.841
1404	0.406	0.239	0.575	0.193	0.615
1405	-0.459	-0.528	-0.388	-0.551	-0.366
1406	0.392	0.120	0.665	0.051	0.729
1407	-1.795	-2.255	-1.343	-2.347	-1.261
1408	-2.712	-3.336	-2.091	-3.467	-1.970
1409	-1.275	-1.795	-0.761	-1.885	-0.674
1410	-0.838	-1.150	-0.529	-1.205	-0.477
1411	-0.434	-0.690	-0.180	-0.739	-0.135
1412	-0.943	-1.144	-0.741	-1.192	-0.699
1413	-0.165	-0.352	0.022	-0.389	0.057
1414	-0.546	-0.646	-0.444	-0.673	-0.421
1415	0.139	0.098	0.179	0.087	0.190
1416	0.298	0.262	0.333	0.252	0.345
1417	-0.145	-0.186	-0.103	-0.199	-0.090
1418	0.253	0.179	0.326	0.159	0.347
1419	-0.532	-0.612	-0.451	-0.638	-0.427
1420	0.224	0.160	0.287	0.142	0.305
1421	0.053	-0.008	0.115	-0.022	0.128
1422	-0.562	-0.698	-0.428	-0.726	-0.401
1423	-0.637	-0.789	-0.485	-0.821	-0.456
1424	0.023	-0.196	0.241	-0.248	0.289
1425	-1.201	-1.410	-0.988	-1.466	-0.939
1426	-0.219	-0.408	-0.031	-0.444	0.004
1427	-0.291	-0.383	-0.200	-0.400	-0.184
1428	0.086	-0.145	0.318	-0.200	0.369

1429	-1.613	-1.931	-1.294	-2.007	-1.225
1430	-1.037	-1.387	-0.694	-1.446	-0.634
1431	-0.557	-0.852	-0.264	-0.908	-0.213
1432	-0.979	-1.236	-0.726	-1.288	-0.680
1433	-0.757	-0.906	-0.606	-0.942	-0.574
1434	0.700	0.563	0.835	0.521	0.880
1435	-0.284	-0.333	-0.234	-0.347	-0.219
1436	-0.139	-0.191	-0.087	-0.201	-0.077
1437	0.051	-0.044	0.146	-0.067	0.167
1438	-0.603	-0.712	-0.492	-0.742	-0.466
1439	-0.034	-0.227	0.159	-0.271	0.199
1440	-1.051	-1.234	-0.866	-1.282	-0.823
1441	-0.109	-0.256	0.037	-0.286	0.065
1442	0.002	-0.153	0.158	-0.189	0.191
1443	-0.932	-1.199	-0.670	-1.247	-0.622
1444	-1.400	-1.756	-1.049	-1.828	-0.985
1445	-0.871	-1.216	-0.530	-1.275	-0.473
1446	-0.931	-1.155	-0.706	-1.203	-0.663
1447	0.009	-0.177	0.195	-0.221	0.235
1448	-0.520	-0.648	-0.393	-0.675	-0.368
1449	-0.317	-0.535	-0.099	-0.576	-0.059
1450	-1.164	-1.385	-0.941	-1.441	-0.892
1451	-0.071	-0.356	0.216	-0.422	0.276
1452	-1.098	-1.440	-0.759	-1.499	-0.700
1453	-1.892	-2.288	-1.496	-2.382	-1.413
1454	-0.322	-0.750	0.107	-0.841	0.192
1455	-1.412	-1.883	-0.950	-1.963	-0.868
1456	-2.439	-2.985	-1.895	-3.103	-1.787
1457	-0.921	-1.472	-0.371	-1.578	-0.270
1458	-1.692	-2.161	-1.231	-2.248	-1.146
1459	-1.427	-1.870	-0.988	-1.946	-0.913
1460	-0.757	-1.227	-0.287	-1.316	-0.202
1461	-2.023	-2.491	-1.557	-2.589	-1.467
1462	-1.207	-1.701	-0.719	-1.786	-0.636
1463	-1.210	-1.731	-0.694	-1.821	-0.606
1464	-2.296	-2.831	-1.763	-2.943	-1.659
1465	-1.209	-1.704	-0.719	-1.790	-0.635
1466	-1.069	-1.442	-0.702	-1.506	-0.638
1467	-0.936	-1.240	-0.636	-1.292	-0.585
1468	-0.634	-0.875	-0.395	-0.917	-0.354
1469	-0.456	-0.686	-0.229	-0.727	-0.189
1470	-0.824	-1.096	-0.556	-1.142	-0.511
1471	-1.035	-1.376	-0.699	-1.433	-0.641
1472	-1.179	-1.553	-0.809	-1.618	-0.746
1473	-1.095	-1.492	-0.703	-1.561	-0.636
1474	-1.208	-1.656	-0.766	-1.733	-0.691
1475	-1.601	-2.167	-1.043	-2.265	-0.946
1476	-2.174	-2.921	-1.438	-3.050	-1.309

1477	-3.043	-3.911	-2.191	-4.068	-2.029
1478	-2.731	-3.597	-1.877	-3.745	-1.731
1479	-2.155	-2.927	-1.392	-3.061	-1.262
1480	-2.032	-2.756	-1.316	-2.882	-1.193
1481	-2.388	-3.043	-1.744	-3.166	-1.626
1482	-1.233	-1.929	-0.541	-2.062	-0.416
1483	-2.696	-3.392	-2.012	-3.529	-1.887
1484	-2.211	-2.910	-1.520	-3.031	-1.403
1485	-1.523	-2.119	-0.931	-2.225	-0.832
1486	-1.667	-2.155	-1.187	-2.243	-1.097
1487	-0.983	-1.479	-0.492	-1.571	-0.404
1488	-1.716	-2.281	-1.161	-2.377	-1.064
1489	-2.295	-2.962	-1.640	-3.082	-1.517
1490	-2.091	-2.760	-1.432	-2.873	-1.319
1491	-1.797	-2.326	-1.278	-2.420	-1.181
1492	-0.746	-1.188	-0.305	-1.273	-0.225
1493	-1.284	-1.705	-0.871	-1.776	-0.799
1494	-1.639	-2.079	-1.207	-2.163	-1.129
1495	-0.891	-1.367	-0.417	-1.459	-0.334
1496	-1.779	-2.264	-1.302	-2.357	-1.215
1497	-1.539	-2.068	-1.018	-2.159	-0.926
1498	-1.445	-1.996	-0.899	-2.091	-0.808
1499	-2.018	-2.565	-1.480	-2.671	-1.382
1500	-1.366	-1.900	-0.839	-1.993	-0.750
1501	-1.575	-1.981	-1.176	-2.063	-1.104
1502	-0.423	-0.827	-0.020	-0.907	0.054
1503	-1.347	-1.835	-0.864	-1.920	-0.782
1504	-2.598	-3.196	-2.003	-3.322	-1.887
1505	-1.429	-1.988	-0.877	-2.086	-0.784
1506	-1.134	-1.561	-0.712	-1.635	-0.640
1507	-1.197	-1.532	-0.867	-1.595	-0.807
1508	-0.439	-0.785	-0.093	-0.851	-0.030
1509	-1.348	-1.711	-0.991	-1.781	-0.926
1510	-1.257	-1.718	-0.800	-1.798	-0.723
1511	-1.727	-2.140	-1.315	-2.228	-1.235
1512	-0.586	-0.963	-0.209	-1.034	-0.141
1513	-0.937	-1.320	-0.557	-1.387	-0.492
1514	-1.825	-2.273	-1.381	-2.366	-1.296
1515	-1.192	-1.658	-0.732	-1.739	-0.655
1516	-1.218	-1.655	-0.786	-1.732	-0.712
1517	-1.441	-1.878	-1.010	-1.954	-0.933
1518	-1.146	-1.628	-0.669	-1.713	-0.588
1519	-1.766	-2.277	-1.264	-2.370	-1.169
1520	-1.704	-2.183	-1.234	-2.270	-1.148
1521	-0.797	-1.193	-0.404	-1.268	-0.334
1522	-0.938	-1.327	-0.552	-1.395	-0.487
1523	-1.520	-2.063	-0.982	-2.159	-0.890
1524	-2.587	-3.172	-2.006	-3.296	-1.891

1525	-0.954	-1.562	-0.349	-1.675	-0.239
1526	-2.041	-2.542	-1.546	-2.646	-1.451
1527	-1.237	-1.736	-0.744	-1.823	-0.660
1528	-1.341	-1.735	-0.954	-1.806	-0.881
1529	-0.702	-1.131	-0.275	-1.213	-0.196
1530	-1.785	-2.222	-1.352	-2.312	-1.268
1531	-1.260	-1.742	-0.783	-1.825	-0.703
1532	-1.355	-1.830	-0.888	-1.911	-0.806
1533	-1.716	-2.109	-1.326	-2.192	-1.249
1534	-0.301	-0.593	-0.009	-0.650	0.045
1535	-0.423	-0.644	-0.203	-0.686	-0.164
1536	-1.153	-1.367	-0.938	-1.422	-0.889
1537	0.061	-0.149	0.272	-0.200	0.318
1538	-0.581	-0.734	-0.431	-0.764	-0.403
1539	-0.550	-0.786	-0.316	-0.827	-0.276
1540	-1.017	-1.272	-0.764	-1.324	-0.716
1541	-0.495	-0.846	-0.144	-0.912	-0.081
1542	-1.697	-2.041	-1.351	-2.124	-1.280
1543	-0.535	-0.895	-0.177	-0.962	-0.112
1544	-1.027	-1.321	-0.737	-1.374	-0.684
1545	-0.786	-1.162	-0.415	-1.229	-0.348
1546	-1.741	-2.072	-1.407	-2.152	-1.337
1547	0.122	-0.257	0.504	-0.347	0.586
1548	-1.434	-1.785	-1.085	-1.858	-1.018
1549	-1.534	-2.028	-1.047	-2.112	-0.964
1550	-1.733	-2.147	-1.321	-2.234	-1.241
1551	-0.363	-0.666	-0.061	-0.723	-0.005
1552	-0.435	-0.675	-0.197	-0.721	-0.156
1553	-1.059	-1.406	-0.716	-1.465	-0.657
1554	-1.677	-2.051	-1.304	-2.135	-1.228
1555	-0.428	-0.834	-0.023	-0.914	0.052
1556	-1.472	-1.851	-1.099	-1.927	-1.031
1557	-1.431	-1.763	-1.102	-1.833	-1.038
1558	-0.020	-0.229	0.188	-0.277	0.232
1559	-0.139	-0.252	-0.025	-0.274	-0.005
1560	-0.639	-0.761	-0.516	-0.792	-0.488
1561	0.089	-0.145	0.323	-0.200	0.374
1562	-1.276	-1.574	-0.979	-1.637	-0.921
1563	-1.354	-1.724	-0.990	-1.796	-0.925
1564	-0.638	-1.050	-0.226	-1.127	-0.152
1565	-1.772	-2.136	-1.406	-2.223	-1.330
1566	-0.473	-0.857	-0.091	-0.930	-0.020
1567	-1.256	-1.546	-0.969	-1.607	-0.912
1568	-0.511	-0.852	-0.171	-0.916	-0.109
1569	-1.226	-1.600	-0.857	-1.666	-0.792
1570	-1.628	-1.997	-1.261	-2.077	-1.188
1571	-0.272	-0.643	0.100	-0.722	0.174
1572	-1.250	-1.610	-0.897	-1.676	-0.830

1573	-1.521	-1.959	-1.090	-2.039	-1.009
1574	-1.204	-1.634	-0.779	-1.709	-0.705
1575	-1.132	-1.533	-0.737	-1.602	-0.668
1576	-1.177	-1.574	-0.787	-1.642	-0.717
1577	-1.291	-1.612	-0.973	-1.678	-0.913
1578	-0.212	-0.523	0.100	-0.590	0.162
1579	-1.079	-1.390	-0.774	-1.446	-0.718
1580	-1.418	-1.732	-1.103	-1.804	-1.039
1581	-0.133	-0.470	0.205	-0.546	0.276
1582	-1.313	-1.605	-1.021	-1.672	-0.962
1583	-0.900	-1.226	-0.577	-1.284	-0.521
1584	-0.672	-1.035	-0.311	-1.105	-0.248
1585	-1.582	-2.029	-1.142	-2.110	-1.063
1586	-1.546	-2.168	-0.931	-2.276	-0.826
1587	-2.705	-3.350	-2.064	-3.486	-1.939
1588	-1.422	-2.072	-0.779	-2.187	-0.665
1589	-1.939	-2.474	-1.414	-2.574	-1.317
1590	-1.233	-1.730	-0.742	-1.817	-0.658
1591	-1.348	-1.763	-0.937	-1.835	-0.866
1592	-0.956	-1.388	-0.528	-1.464	-0.455
1593	-1.611	-2.029	-1.200	-2.112	-1.125
1594	-1.030	-1.454	-0.610	-1.528	-0.538
1595	-1.109	-1.576	-0.648	-1.658	-0.569
1596	-1.863	-2.507	-1.228	-2.618	-1.117
1597	-3.026	-3.705	-2.351	-3.850	-2.217
1598	-1.123	-1.710	-0.540	-1.823	-0.439
1599	-1.167	-1.653	-0.685	-1.738	-0.603
1600	-1.781	-2.391	-1.181	-2.495	-1.076
1601	-2.608	-3.276	-1.951	-3.409	-1.833
1602	-1.543	-2.225	-0.868	-2.346	-0.752
1603	-2.081	-2.748	-1.423	-2.862	-1.309
1604	-2.303	-2.996	-1.619	-3.116	-1.499
1605	-1.828	-2.547	-1.116	-2.673	-0.996
1606	-2.433	-3.144	-1.735	-3.272	-1.604
1607	-2.046	-2.790	-1.310	-2.920	-1.185
1608	-2.269	-3.043	-1.508	-3.176	-1.374
1609	-2.724	-3.481	-1.979	-3.618	-1.844
1610	-1.835	-2.500	-1.177	-2.616	-1.065
1611	-1.475	-2.033	-0.923	-2.129	-0.830
1612	-1.592	-2.133	-1.061	-2.225	-0.966
1613	-1.573	-2.224	-0.928	-2.338	-0.817
1614	-2.867	-3.541	-2.195	-3.684	-2.065
1615	-1.554	-2.188	-0.927	-2.298	-0.821
1616	-1.558	-1.978	-1.144	-2.059	-1.069
1617	-0.233	-0.709	0.245	-0.816	0.345
1618	-2.182	-2.716	-1.654	-2.827	-1.552
1619	-2.236	-2.869	-1.614	-2.983	-1.497
1620	-1.419	-1.996	-0.848	-2.097	-0.750

1621	-1.484	-2.061	-0.913	-2.161	-0.817
1622	-2.249	-2.861	-1.647	-2.978	-1.536
1623	-1.746	-2.344	-1.157	-2.447	-1.054
1624	-1.445	-1.970	-0.925	-2.062	-0.837
1625	-1.535	-1.981	-1.096	-2.063	-1.013
1626	-0.953	-1.326	-0.584	-1.390	-0.522
1627	-0.762	-1.108	-0.419	-1.169	-0.361
1628	-1.373	-1.684	-1.064	-1.752	-1.002
1629	-0.352	-0.723	0.019	-0.798	0.089
1630	-1.435	-1.867	-1.008	-1.944	-0.931
1631	-1.923	-2.520	-1.333	-2.622	-1.232
1632	-2.113	-2.774	-1.459	-2.889	-1.348
1633	-2.130	-2.689	-1.580	-2.796	-1.482
1634	-0.623	-1.120	-0.127	-1.215	-0.034
1635	-1.681	-2.064	-1.300	-2.145	-1.225
1636	-0.791	-1.179	-0.406	-1.251	-0.339
1637	-1.082	-1.411	-0.757	-1.470	-0.698
1638	-0.884	-1.247	-0.526	-1.310	-0.464
1639	-1.323	-1.669	-0.983	-1.738	-0.921
1640	-0.691	-1.084	-0.302	-1.159	-0.232
1641	-1.558	-1.926	-1.192	-2.003	-1.120
1642	-0.696	-1.212	-0.182	-1.308	-0.088
1643	-2.417	-2.975	-1.863	-3.092	-1.755
1644	-1.791	-2.339	-1.250	-2.433	-1.156
1645	-0.834	-1.264	-0.408	-1.345	-0.333
1646	-1.047	-1.477	-0.621	-1.552	-0.548
1647	-2.007	-2.427	-1.586	-2.526	-1.498
1648	-0.508	-0.854	-0.162	-0.918	-0.100
1649	-0.492	-0.779	-0.208	-0.834	-0.157
1650	-1.310	-1.683	-0.943	-1.750	-0.876
1651	-1.424	-1.904	-0.952	-1.986	-0.868
1652	-1.686	-2.164	-1.215	-2.250	-1.129
1653	-1.145	-1.586	-0.708	-1.662	-0.635
1654	-1.216	-1.551	-0.886	-1.616	-0.826
1655	-0.455	-0.749	-0.161	-0.804	-0.108
1656	-0.911	-1.143	-0.682	-1.190	-0.639
1657	-0.478	-0.725	-0.234	-0.771	-0.191
1658	-0.720	-1.009	-0.434	-1.059	-0.386
1659	-1.301	-1.663	-0.946	-1.731	-0.881
1660	-1.152	-1.558	-0.752	-1.628	-0.683
1661	-1.194	-1.605	-0.790	-1.676	-0.719
1662	-1.235	-1.686	-0.788	-1.765	-0.713
1663	-1.620	-2.100	-1.148	-2.187	-1.060
1664	-1.377	-1.905	-0.855	-1.996	-0.768
1665	-1.720	-2.316	-1.133	-2.419	-1.030
1666	-2.258	-2.909	-1.616	-3.028	-1.495
1667	-1.901	-2.571	-1.238	-2.688	-1.124
1668	-1.943	-2.588	-1.310	-2.698	-1.196

1669	-1.805	-2.512	-1.105	-2.637	-0.986
1670	-2.697	-3.448	-1.959	-3.585	-1.824
1671	-2.253	-2.990	-1.530	-3.115	-1.403
1672	-1.876	-2.442	-1.318	-2.541	-1.220
1673	-0.850	-1.297	-0.405	-1.383	-0.328
1674	-1.087	-1.551	-0.627	-1.632	-0.549
1675	-2.146	-2.698	-1.603	-2.807	-1.505
1676	-1.688	-2.260	-1.125	-2.358	-1.025
1677	-1.435	-1.919	-0.959	-2.001	-0.874
1678	-1.030	-1.536	-0.529	-1.632	-0.440
1679	-2.099	-2.624	-1.583	-2.730	-1.486
1680	-1.534	-2.013	-1.061	-2.095	-0.980
1681	-0.655	-1.074	-0.236	-1.153	-0.160
1682	-1.481	-1.855	-1.113	-1.930	-1.044
1683	-1.042	-1.410	-0.680	-1.473	-0.617
1684	-0.754	-1.090	-0.422	-1.149	-0.365
1685	-1.199	-1.485	-0.913	-1.545	-0.858
1686	-0.393	-0.699	-0.088	-0.756	-0.032
1687	-1.080	-1.373	-0.791	-1.430	-0.739
1688	-1.027	-1.329	-0.731	-1.384	-0.674
1689	-0.452	-0.818	-0.087	-0.888	-0.019
1690	-1.772	-2.152	-1.393	-2.240	-1.312
1691	-0.914	-1.326	-0.507	-1.398	-0.438
1692	-1.014	-1.449	-0.584	-1.524	-0.511
1693	-1.893	-2.403	-1.391	-2.502	-1.300
1694	-1.482	-2.135	-0.836	-2.250	-0.726
1695	-2.646	-3.364	-1.941	-3.501	-1.811
1696	-2.298	-3.039	-1.569	-3.164	-1.442
1697	-1.791	-2.499	-1.090	-2.624	-0.971
1698	-2.283	-2.992	-1.581	-3.114	-1.462
1699	-2.407	-3.040	-1.783	-3.162	-1.673
1700	-0.876	-1.455	-0.298	-1.563	-0.195
1701	-1.973	-2.408	-1.539	-2.506	-1.450
1702	-0.748	-1.110	-0.389	-1.176	-0.325
1703	-0.495	-0.803	-0.186	-0.863	-0.130
1704	-1.250	-1.651	-0.852	-1.720	-0.785
1705	-1.842	-2.316	-1.375	-2.411	-1.291
1706	-1.147	-1.614	-0.685	-1.695	-0.606
1707	-1.106	-1.639	-0.578	-1.737	-0.485
1708	-2.541	-3.148	-1.938	-3.276	-1.821
1709	-1.707	-2.353	-1.068	-2.464	-0.960
1710	-1.748	-2.325	-1.182	-2.423	-1.082
1711	-1.548	-2.154	-0.947	-2.261	-0.846
1712	-2.183	-2.819	-1.559	-2.933	-1.441
1713	-2.015	-2.628	-1.409	-2.734	-1.304
1714	-1.340	-1.889	-0.797	-1.985	-0.705
1715	-1.433	-2.037	-0.836	-2.142	-0.735
1716	-2.679	-3.346	-2.023	-3.480	-1.900

1717	-1.769	-2.472	-1.073	-2.595	-0.955
1718	-2.030	-2.695	-1.377	-2.807	-1.263
1719	-2.061	-2.752	-1.382	-2.869	-1.262
1720	-2.089	-2.817	-1.370	-2.943	-1.246
1721	-2.503	-3.207	-1.810	-3.335	-1.682
1722	-1.721	-2.367	-1.083	-2.479	-0.974
1723	-1.557	-2.191	-0.931	-2.301	-0.824
1724	-2.438	-3.073	-1.812	-3.196	-1.700
1725	-1.532	-2.215	-0.854	-2.337	-0.738
1726	-2.332	-3.000	-1.675	-3.122	-1.550
1727	-1.984	-2.724	-1.253	-2.852	-1.127
1728	-2.484	-3.229	-1.748	-3.359	-1.619
1729	-2.231	-2.980	-1.493	-3.108	-1.361
1730	-2.016	-2.777	-1.263	-2.908	-1.136
1731	-2.649	-3.428	-1.883	-3.567	-1.740
1732	-2.292	-3.113	-1.480	-3.256	-1.342
1733	-2.669	-3.415	-1.935	-3.550	-1.801
1734	-1.666	-2.344	-0.995	-2.462	-0.881
1735	-1.849	-2.434	-1.273	-2.535	-1.174
1736	-1.599	-2.166	-1.038	-2.265	-0.941
1737	-1.657	-2.199	-1.125	-2.291	-1.032
1738	-1.444	-2.050	-0.844	-2.156	-0.742
1739	-2.341	-3.043	-1.649	-3.166	-1.526
1740	-2.535	-3.313	-1.766	-3.446	-1.633
1741	-2.207	-3.001	-1.422	-3.139	-1.289
1742	-2.553	-3.287	-1.831	-3.421	-1.694
1743	-1.808	-2.488	-1.135	-2.606	-1.021
1744	-1.859	-2.440	-1.284	-2.541	-1.186
1745	-1.411	-1.979	-0.850	-2.078	-0.754
1746	-1.806	-2.386	-1.234	-2.485	-1.136
1747	-2.007	-2.570	-1.453	-2.673	-1.353
1748	-1.196	-1.718	-0.679	-1.810	-0.590
1749	-1.606	-2.012	-1.205	-2.095	-1.132
1750	-0.674	-0.995	-0.356	-1.053	-0.299
1751	-0.620	-0.813	-0.429	-0.848	-0.394
1752	-0.145	-0.368	0.078	-0.415	0.123
1753	-1.041	-1.302	-0.783	-1.356	-0.734
1754	-1.015	-1.327	-0.707	-1.382	-0.653
1755	-0.737	-1.050	-0.427	-1.104	-0.374
1756	-1.034	-1.330	-0.742	-1.384	-0.689
1757	-0.643	-1.031	-0.257	-1.105	-0.186
1758	-1.866	-2.264	-1.469	-2.356	-1.384
1759	-0.745	-1.199	-0.292	-1.286	-0.209
1760	-1.517	-1.958	-1.083	-2.038	-1.001
1761	-1.529	-2.040	-1.028	-2.127	-0.938
1762	-1.568	-2.095	-1.051	-2.184	-0.959
1763	-1.650	-2.148	-1.158	-2.235	-1.071
1764	-1.215	-1.683	-0.752	-1.764	-0.674

1765	-1.353	-1.773	-0.938	-1.845	-0.866
1766	-1.028	-1.485	-0.574	-1.566	-0.497
1767	-1.669	-2.203	-1.142	-2.295	-1.052
1768	-2.045	-2.670	-1.427	-2.777	-1.320
1769	-1.876	-2.595	-1.165	-2.718	-1.046
1770	-2.598	-3.405	-1.801	-3.543	-1.665
1771	-2.860	-3.698	-2.035	-3.848	-1.881
1772	-2.315	-3.015	-1.623	-3.136	-1.502
1773	-1.109	-1.671	-0.552	-1.776	-0.453
1774	-1.531	-2.030	-1.040	-2.114	-0.955
1775	-1.828	-2.249	-1.411	-2.337	-1.330
1776	-0.173	-0.576	0.231	-0.668	0.316
1777	-1.421	-1.749	-1.095	-1.818	-1.031
1778	-1.000	-1.402	-0.601	-1.473	-0.533
1779	-1.260	-1.676	-0.851	-1.747	-0.779
1780	-1.366	-1.832	-0.907	-1.912	-0.826
1781	-1.552	-2.041	-1.069	-2.125	-0.987
1782	-1.531	-1.969	-1.101	-2.049	-1.020
1783	-0.768	-1.155	-0.385	-1.227	-0.316
1784	-1.110	-1.474	-0.751	-1.535	-0.689
1785	-1.304	-1.660	-0.953	-1.729	-0.890
1786	-0.609	-1.015	-0.204	-1.091	-0.131
1787	-1.677	-2.109	-1.253	-2.196	-1.176
1788	-1.510	-1.942	-1.085	-2.020	-1.006
1789	-0.629	-1.059	-0.199	-1.139	-0.123
1790	-1.711	-2.083	-1.340	-2.169	-1.262
1791	-0.714	-1.075	-0.358	-1.142	-0.294
1792	-0.869	-1.154	-0.588	-1.203	-0.540
1793	-0.822	-1.083	-0.564	-1.128	-0.520
1794	-0.579	-0.806	-0.354	-0.846	-0.315
1795	-0.574	-0.763	-0.388	-0.795	-0.356
1796	-0.291	-0.558	-0.025	-0.610	0.025
1797	-1.523	-1.803	-1.242	-1.874	-1.178
1798	-0.158	-0.482	0.166	-0.554	0.234
1799	-1.102	-1.412	-0.798	-1.469	-0.742
1800	-1.340	-1.706	-0.980	-1.777	-0.915
1801	-0.774	-1.170	-0.382	-1.244	-0.312
1802	-1.565	-1.889	-1.239	-1.966	-1.171
1803	-0.274	-0.546	-0.001	-0.600	0.049
1804	-0.443	-0.688	-0.200	-0.735	-0.158
1805	-1.261	-1.597	-0.930	-1.662	-0.871
1806	-1.308	-1.656	-0.965	-1.723	-0.904
1807	-0.529	-0.822	-0.237	-0.879	-0.186
1808	-0.732	-0.974	-0.493	-1.016	-0.453
1809	-0.589	-0.957	-0.223	-1.027	-0.156
1810	-2.061	-2.463	-1.655	-2.560	-1.568
1811	-0.520	-0.956	-0.085	-1.041	-0.005
1812	-1.459	-1.774	-1.145	-1.846	-1.077

1813	-0.531	-0.794	-0.270	-0.842	-0.224
1814	-0.259	-0.531	0.013	-0.586	0.064
1815	-1.465	-1.779	-1.152	-1.852	-1.084
1816	-0.937	-1.241	-0.637	-1.293	-0.586
1817	-0.243	-0.564	0.078	-0.631	0.140
1818	-1.613	-1.904	-1.321	-1.979	-1.252
1819	-0.132	-0.458	0.195	-0.532	0.264
1820	-0.995	-1.338	-0.658	-1.396	-0.598
1821	-1.878	-2.274	-1.482	-2.367	-1.398
1822	-0.474	-0.881	-0.068	-0.960	0.007
1823	-1.254	-1.616	-0.898	-1.682	-0.831
1824	-1.335	-1.740	-0.936	-1.811	-0.865
1825	-1.172	-1.485	-0.865	-1.545	-0.810
1826	-0.094	-0.395	0.208	-0.463	0.272
1827	-1.204	-1.476	-0.933	-1.536	-0.878
1828	-0.854	-1.190	-0.522	-1.247	-0.466
1829	-0.971	-1.330	-0.616	-1.393	-0.556
1830	-1.498	-1.795	-1.198	-1.867	-1.135
1831	0.342	-0.091	0.777	-0.194	0.874
1832	-2.210	-2.662	-1.756	-2.770	-1.662
1833	-1.912	-2.394	-1.436	-2.493	-1.349
1834	-0.223	-0.682	0.238	-0.786	0.335
1835	-1.734	-2.142	-1.327	-2.228	-1.247
1836	-1.477	-1.930	-1.028	-2.008	-0.951
1837	-0.862	-1.327	-0.399	-1.417	-0.318
1838	-1.862	-2.311	-1.415	-2.405	-1.329
1839	-1.147	-1.597	-0.702	-1.676	-0.628
1840	-1.143	-1.503	-0.787	-1.564	-0.726
1841	-0.806	-1.126	-0.489	-1.181	-0.436
1842	-0.811	-1.134	-0.492	-1.191	-0.438
1843	-1.195	-1.549	-0.846	-1.613	-0.781
1844	-1.167	-1.505	-0.834	-1.566	-0.772
1845	-0.682	-0.929	-0.438	-0.972	-0.396
1846	-0.169	-0.425	0.089	-0.480	0.140
1847	-1.265	-1.538	-0.992	-1.601	-0.934
1848	-0.753	-1.082	-0.428	-1.139	-0.373
1849	-1.050	-1.326	-0.778	-1.381	-0.729
1850	-0.423	-0.744	-0.103	-0.803	-0.045
1851	-1.399	-1.692	-1.104	-1.762	-1.043
1852	-0.464	-0.812	-0.117	-0.877	-0.053
1853	-1.359	-1.631	-1.085	-1.696	-1.027
1854	-0.247	-0.484	-0.010	-0.531	0.034
1855	-0.340	-0.595	-0.085	-0.643	-0.039
1856	-1.561	-1.878	-1.242	-1.955	-1.176
1857	-0.756	-1.033	-0.483	-1.082	-0.436
1858	-0.125	-0.371	0.123	-0.426	0.175
1859	-1.130	-1.360	-0.900	-1.414	-0.852
1860	-0.521	-0.728	-0.317	-0.764	-0.282

1861	-0.087	-0.329	0.156	-0.384	0.207
1862	-1.318	-1.616	-1.021	-1.681	-0.961
1863	-1.022	-1.435	-0.613	-1.507	-0.544
1864	-1.595	-1.950	-1.240	-2.030	-1.168
1865	-0.327	-0.664	0.010	-0.731	0.073
1866	-0.876	-1.245	-0.511	-1.309	-0.449
1867	-2.225	-2.599	-1.846	-2.700	-1.759
1868	0.574	0.227	0.922	0.139	1.004
1869	-0.933	-1.081	-0.782	-1.124	-0.747
1870	-0.006	-0.274	0.263	-0.338	0.320
1871	-1.510	-1.750	-1.268	-1.816	-1.212
1872	0.234	0.034	0.436	-0.016	0.481
1873	-0.191	-0.328	-0.054	-0.354	-0.029
1874	-1.073	-1.270	-0.875	-1.321	-0.829
1875	-0.193	-0.369	-0.017	-0.403	0.016
1876	-0.110	-0.359	0.140	-0.415	0.193
1877	-1.753	-2.081	-1.421	-2.164	-1.348
1878	-0.742	-1.042	-0.445	-1.095	-0.394
1879	-0.328	-0.497	-0.162	-0.527	-0.132
1880	-0.103	-0.339	0.134	-0.392	0.184
1881	-1.633	-1.891	-1.372	-1.963	-1.311
1882	0.333	0.070	0.598	0.004	0.658
1883	-0.698	-0.867	-0.530	-0.902	-0.497
1884	-0.817	-1.078	-0.558	-1.123	-0.514
1885	-0.976	-1.174	-0.777	-1.222	-0.735
1886	0.227	0.117	0.338	0.088	0.364
1887	0.209	0.111	0.308	0.086	0.330
1888	-0.933	-1.088	-0.775	-1.129	-0.740
1889	-0.210	-0.357	-0.063	-0.385	-0.036
1890	-0.152	-0.263	-0.042	-0.284	-0.022
1891	-0.323	-0.541	-0.105	-0.582	-0.066
1892	-1.453	-1.743	-1.161	-1.813	-1.099
1893	-0.740	-0.913	-0.568	-0.951	-0.534
1894	0.775	0.628	0.919	0.583	0.968
1895	-0.383	-0.478	-0.286	-0.508	-0.257
1896	0.365	0.305	0.423	0.287	0.442
1897	0.004	-0.090	0.098	-0.112	0.118
1898	-0.811	-1.146	-0.479	-1.204	-0.422
1899	-2.381	-2.836	-1.921	-2.948	-1.823
1900	-0.675	-0.996	-0.358	-1.054	-0.301
1901	0.317	-0.037	0.673	-0.122	0.754
1902	-2.368	-2.727	-2.000	-2.828	-1.915
1903	0.293	-0.107	0.695	-0.204	0.786
1904	-1.380	-1.606	-1.150	-1.666	-1.098
1905	-0.187	-0.283	-0.093	-0.300	-0.077
1906	0.826	0.694	0.957	0.655	0.996
1907	-0.699	-0.822	-0.574	-0.859	-0.538
1908	0.480	0.296	0.664	0.245	0.711

1909	-1.069	-1.238	-0.898	-1.287	-0.858
1910	-0.210	-0.400	-0.022	-0.436	0.013
1911	-0.483	-0.599	-0.366	-0.624	-0.343
1912	-0.177	-0.243	-0.112	-0.255	-0.100
1913	0.228	0.159	0.297	0.139	0.316
1914	-0.286	-0.361	-0.213	-0.376	-0.198
1915	-0.467	-0.570	-0.363	-0.594	-0.342
1916	-0.079	-0.145	-0.015	-0.157	-0.003
1917	0.164	0.053	0.277	0.025	0.302
1918	-0.894	-1.025	-0.761	-1.068	-0.724
1919	0.360	0.311	0.407	0.297	0.421
1920	0.605	0.496	0.712	0.473	0.738
1921	0.264	0.204	0.324	0.193	0.335
1922	0.020	-0.120	0.159	-0.153	0.189
1923	-1.626	-1.859	-1.389	-1.935	-1.323
1924	0.846	0.696	0.996	0.650	1.044
1925	0.330	0.217	0.444	0.197	0.463
1926	0.282	0.208	0.358	0.195	0.371
1927	0.286	0.242	0.329	0.229	0.343
1928	-0.626	-0.720	-0.531	-0.750	-0.505
1929	0.081	0.054	0.108	0.047	0.114
1930	0.401	0.335	0.465	0.321	0.482
1931	0.233	0.136	0.330	0.119	0.349
1932	0.492	0.411	0.573	0.393	0.593
1933	-0.042	-0.186	0.101	-0.219	0.136
1934	1.062	0.910	1.211	0.866	1.257
1935	-1.009	-1.191	-0.824	-1.248	-0.769
1936	0.549	0.475	0.622	0.456	0.644
1937	0.783	0.599	0.969	0.566	1.006
1938	0.641	0.429	0.854	0.393	0.891
1939	0.807	0.645	0.968	0.612	1.006
1940	0.141	0.059	0.223	0.044	0.239
1941	-0.064	-0.079	-0.048	-0.084	-0.044
1942	-0.058	-0.075	-0.041	-0.079	-0.037
1943	0.099	0.087	0.111	0.085	0.114
1944	0.160	0.089	0.231	0.076	0.245
1945	0.510	0.367	0.654	0.343	0.679
1946	0.768	0.533	1.007	0.491	1.048
1947	1.137	0.866	1.414	0.816	1.469
1948	0.831	0.601	1.065	0.561	1.105
1949	0.337	0.162	0.512	0.131	0.545
1950	0.536	0.400	0.675	0.374	0.700
1951	0.594	0.509	0.678	0.490	0.702
1952	-0.546	-0.658	-0.432	-0.695	-0.397
1953	0.436	0.380	0.491	0.365	0.508
1954	0.299	0.165	0.435	0.141	0.460
1955	0.871	0.748	0.992	0.717	1.028
1956	-0.451	-0.593	-0.308	-0.636	-0.269

1957	0.550	0.475	0.624	0.456	0.646
1958	0.221	0.041	0.400	0.007	0.437
1959	1.124	0.919	1.327	0.875	1.377
1960	0.537	0.383	0.695	0.356	0.722
1961	0.111	0.090	0.132	0.084	0.138
1962	-0.835	-0.956	-0.710	-0.996	-0.673
1963	0.521	0.450	0.591	0.430	0.613
1964	0.477	0.410	0.543	0.394	0.562
1965	-0.410	-0.531	-0.288	-0.569	-0.254
1966	0.648	0.519	0.777	0.493	0.806
1967	1.050	0.857	1.240	0.816	1.287
1968	0.109	-0.072	0.289	-0.110	0.331
1969	0.594	0.472	0.718	0.448	0.744
1970	0.431	0.282	0.582	0.256	0.609
1971	0.530	0.364	0.697	0.336	0.726
1972	0.690	0.488	0.896	0.453	0.930
1973	0.918	0.748	1.087	0.712	1.128
1974	-0.158	-0.390	0.072	-0.442	0.129
1975	1.326	1.131	1.518	1.085	1.573
1976	0.031	-0.115	0.176	-0.146	0.211
1977	0.163	0.146	0.180	0.142	0.185
1978	-0.218	-0.275	-0.160	-0.293	-0.142
1979	0.485	0.420	0.548	0.401	0.567
1980	-0.044	-0.075	-0.014	-0.080	-0.009
1981	-0.651	-0.748	-0.550	-0.780	-0.521
1982	0.612	0.521	0.702	0.501	0.725
1983	0.802	0.662	0.941	0.631	0.976
1984	0.083	0.069	0.098	0.067	0.100
1985	-0.746	-0.865	-0.624	-0.901	-0.589
1986	0.922	0.734	1.106	0.678	1.167
1987	-1.047	-1.246	-0.846	-1.309	-0.786
1988	0.908	0.761	1.053	0.727	1.092
1989	1.213	0.912	1.520	0.857	1.579
1990	1.040	0.736	1.348	0.684	1.401
1991	0.770	0.506	1.038	0.461	1.084
1992	0.883	0.709	1.057	0.671	1.098
1993	-0.166	-0.407	0.074	-0.462	0.132
1994	1.410	1.192	1.626	1.143	1.682
1995	0.243	0.066	0.420	0.033	0.455
1996	0.153	0.024	0.281	-0.002	0.309
1997	0.876	0.749	0.999	0.720	1.034
1998	-0.324	-0.541	-0.107	-0.591	-0.051
1999	1.196	0.973	1.419	0.925	1.473
2000	1.026	0.697	1.360	0.640	1.418
2001	1.131	0.783	1.485	0.721	1.546
2002	1.338	1.041	1.635	0.984	1.698
2003	0.355	0.121	0.590	0.077	0.635
2004	0.507	0.293	0.722	0.256	0.762

2005	1.114	0.803	1.431	0.747	1.485
2006	1.495	1.139	1.858	1.075	1.931
2007	0.943	0.652	1.238	0.601	1.289
2008	0.367	0.095	0.640	0.045	0.693
2009	1.194	0.896	1.496	0.842	1.555
2010	1.275	0.907	1.648	0.844	1.712
2011	1.224	0.883	1.570	0.822	1.631
2012	0.816	0.506	1.129	0.453	1.184
2013	1.079	0.852	1.307	0.807	1.356
2014	0.193	-0.008	0.393	-0.049	0.437
2015	0.591	0.401	0.784	0.369	0.817
2016	1.110	0.891	1.330	0.844	1.381
2017	0.268	-0.041	0.575	-0.103	0.643
2018	1.624	1.330	1.915	1.267	1.987
2019	0.612	0.371	0.855	0.330	0.898
2020	0.136	-0.121	0.392	-0.176	0.451