

## Supporting Information from “Time for a rethink: time sub-sampling methods in disparity-through-time analyses”

### APPENDIX S3: ADDITIONAL TABLES

**Table S1: Results of paired Wilcoxon tests investigating whether disparities calculated using time bins are significantly different to those calculated using time-slices\*.**

<b>Dataset</b>	<b>Period</b>	<b>Method</b>	<b>Stratigraphy</b>	<b>Duration</b>	<b>Number</b>
Beck2014	Stage	acctran	39***	76	11
Beck2014	Stage	deltran	188***	194***	171
Beck2014	Stage	equal.split	91	119***	47
Beck2014	Stage	gradual.split	111	115***	65***
Beck2014	Stage	proximity	105	83	68***
Beck2014	Stage	random	97	104***	45
Beck2014	Epoch	acctran	14	10	14
Beck2014	Epoch	deltran	21	45***	41***
Beck2014	Epoch	equal.split	21	40***	42***
Beck2014	Epoch	gradual.split	21	39	43***
Beck2014	Epoch	proximity	21	36	32
Beck2014	Epoch	random	21	37	45***
Brusatte2014	Stage	acctran	27***	28	28***
Brusatte2014	Stage	deltran	27***	29	31***
Brusatte2014	Stage	equal.split	28***	58***	50***
Brusatte2014	Stage	gradual.split	28***	61***	52***
Brusatte2014	Stage	proximity	27***	31	28***
Brusatte2014	Stage	random	27***	27	27***
Brusatte2014	Epoch	acctran	0	5***	5
Brusatte2014	Epoch	deltran	0	5***	5
Brusatte2014	Epoch	equal.split	3	6	6
Brusatte2014	Epoch	gradual.split	3	6	6
Brusatte2014	Epoch	proximity	0	5***	5
Brusatte2014	Epoch	random	0	5***	5
Bapst2016	Stage	acctran	45***	47	72***
Bapst2016	Stage	deltran	55***	46	78***
Bapst2016	Stage	equal.split	93	147***	153
Bapst2016	Stage	gradual.split	93	153	165

Bapst2016	Stage	proximity	57***	47	75***
Bapst2016	Stage	random	57***	48	81***
Bapst2016	Epoch	acctrans	2	0***	8
Bapst2016	Epoch	deltran	2	0***	9
Bapst2016	Epoch	equal.split	4	6	13
Bapst2016	Epoch	gradual.split	4	6	12
Bapst2016	Epoch	proximity	2	0***	8
Bapst2016	Epoch	random	2	1***	8
Wright2017	Stage	acctrans	146***	146	84
Wright2017	Stage	deltran	162***	138	101
Wright2017	Stage	equal.split	151***	160	105
Wright2017	Stage	gradual.split	152***	155	116
Wright2017	Stage	proximity	160***	175***	101
Wright2017	Stage	random	150***	147	111
Wright2017	Epoch	acctrans	25	20	18
Wright2017	Epoch	deltran	27	26	25
Wright2017	Epoch	equal.split	29	30	25
Wright2017	Epoch	gradual.split	28	29	21
Wright2017	Epoch	proximity	23	28	18
Wright2017	Epoch	random	28	23	17

\*Time-slices used one of six methods. Stratigraphy uses unequal time bins or non-equidistant time-slices, where the width of the bin, or the interval between slices, is equivalent to stratigraphic stages or epochs. Duration uses equal time bins or equidistant time-slices, where the width of the bin, or the interval between slices, is the average duration of stratigraphic stages or epochs in the time frame of the dataset. Number uses equal time bins or equidistant time-slices, where the number of bins, or the number of slices, is the average number of stratigraphic stages or epochs in the time frame of the dataset.  $i * i p < 0.001$  (p-values were Bonferroni corrected).