

## Supplementary Information for

# Determinants of Birth Intervals Using Prentice-Williams-Peterson-Gap Time Model: Tehran Case Study

Arezoo Bagheri, Ph.D., Mahsa Saadati, Ph.D.\*

National Institute for Population Research, Tehran, Iran

**Table S1:** Data structures for PWP-GT model\*\*

ID	Start	Stop	Status	Gap	Parity	Region	First marriage age	Activity
1	0	50	1	50	1	3	31	1
1	50	60	0	10	2	3	31	1
1	60	60	0	0	3	3	31	1
2	0	26	1	26	1	3	18	1
2	26	90	1	64	2	3	18	1
2	90	189	1	99	3	3	18	1
3	0	360	0	360	1	3	23	2
3	360	360	0	0	2	3	23	2
3	360	360	0	0	3	3	23	2
4	0	37	1	37	1	2	25	1
4	37	72	0	35	2	2	25	1
4	72	72	0	0	3	2	25	1
5	0	49	1	49	1	2	21	1
5	49	113	1	64	2	2	21	1
5	113	171	1	58	3	2	21	1
6	0	85	1	85	1	2	19	1
6	85	144	0	59	2	2	19	1
6	144	144	0	0	3	2	19	1

": Data structure in the PWP-GT model is different from the general model, and data preparation is the main step for fitting this model; each case in the dataset is repeated as many times as there are events. The following Table shows the data structure for six women (and 4 covariates) in the present article:

In this table, ID, identifies each woman. (Start, Stop) is applied for computing birth intervals; Start time is equal to 0 for the 1st child and equals to the last child birth time for other children. The stop time is the birth (Status=1) or censored (Status=0) time. Gap time, is the interval between each births (Stop-Start).

First woman (ID=1), gave birth to first child 50 months after marriage; since she had only one child and follow-up until 60 months, the stop time is equal to 60. Second woman (ID=2), had 3 children; she gave birth to first, second, and third children 26, 90, and 189 months after her marriage, respectively.

**Table S2:** Data structures for PWP-GT model\*\*

```
proc phreg data=Birth Interval;
  class Region Education Partner_Education Activity Migration_ Status Calender3 Expenditure/ ref=first;
  model gaptime * Status(0) = Region Education Partner_Education Activity Migration_ Status Calender3 Expenditure First_Marriage_
  Age/ RISKLIMITS=WALD;
  strata Parity;
  run;
```

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\*Corresponding Address: P.O.Box: 1531635711, National Institute for Population Research, Tehran, Iran  
Email: mahsa.saadati@gmail.com