Estimation Summary Report

04 January 2020 01::56::05 pm

AIC: 212.458

Log-likelihood: -49.2292

Release: 54.2163

A1: -41.7119

A2: -4.46988

A3: -6.32692

A4: 8.0438

A5: -12.0663

A6: -35.7274

A8: -10.3365

A9: -4.41607

A10: -1.97581

A11: -40.396

A12: -38.4535

A13: -18.3922

A14: 119.171

A15: -4.94186

A16: -1.67392

A17: -1.01961

A18: -7.07264

A19: 0

B1: -36.9247

B2: 0

C1: 2.63526

D1: 0

E1: 3.98345

E2: -19.8229

F1: -0.889289 B1aux: -6.72614

C1aux: 31.4966 D1aux: 13.4943

A15aux: 46.0038

A16aux: -6.51163

A17aux: -12.6678

A18aux: 0

A19aux: -12.0723

E1aux: -3.67854

Dimension of the Mnimum Sufficient Statistic: 68

Number of parameters: 57

Categories and Corresponding Counts by Likelihood

"Release"

Category	Counts	Category	Counts	Category	Counts
RA1	343	RA2	0	RA3	0
RA4	0	RA5	0	RA6	0
RA8	0	RA9	0	RA10	0

RA11	0	RA12	0	RA13	0
RA14	0	RA15	0	RA16	0
RA17	0	RA18	0	RA19	0
RB1	0	RB2	0	RC1	0
RM	0	RE1	0	RE2	0
RF1	0	Rx	4		

"A1"

Total observed counts: 343

Category	Counts	Category	Counts	Category	Counts
A1 A2	37	A1 A3	177	A1 A4	26
A1 A5	1	A1 A6	0	A1 A8	0
A1 A9	0	A1 A10	0	A1 A11	0
A1 A12	0	A1 A13	0	A1 A14	0
A1 A15	0	A1 A16	0	A1 A17	0
A1 A18	0	A1 A19	0	A1 B1	0
A1 B2	0	A1 C1	0	A1 D1	0
A1 E1	0	A1 E2	0	A1 F1	0
A1 x	102				

"A2"

Category	Counts	Category	Counts	Category	Counts
A2 A3	28	A2 A4	5	A2 A5	0
A2 A6	0	A2 A8	0	A2 A9	0
A2 A10	0	A2 A11	0	A2 A12	0
A2 A13	0	A2 A14	0	A2A15	0
A2 A16	0	A2 A17	0	A2A18	0
A2 A19	0	A2 B1	0	A2 B2	0

A2 C1	0	A2 D1	0	A2 E1	0
A2 E2	0	A2 F1	0	A2 x	4

"A3"

Total observed counts: 205

Category	Counts	Category	Counts	Category	Counts
A3 A4	176	A3 A5	0	A3A6	0
A3 A8	0	A3 A9	0	A3A10	0
A3 A11	0	A3 A12	0	A3A13	0
A3 A14	0	A3 A15	0	A3A16	0
A3A17	0	A3 A18	0	A3 A19	0
A3 B1	0	A3 B2	0	A3 C1	0
A3 D1	0	A3 E1	0	A3 E2	0
A3 F1	0	A3 x	29		

"A4"

Total observed counts: 207

Category	Counts	Category	Counts	Category	Counts
A4 A5	158	A4 A6	0	A4 A8	0
A4 A9	0	A4 A10	0	A4 A11	0
A4 A12	0	A4 A13	0	A4 A14	0
A4 A15	0	A4 A16	0	A4 A17	0
A4 A18	0	A4 A19	0	A4 B1	0
A4 B2	0	A4 C1	0	A4 D1	0
A4 E1	0	A4 E2	0	A4 F1	0
A4 x	49				

"A5"

Category	Counts	Category	Counts	Category	Counts
A5 A6	140	A5 A8	2	A5A9	0

A5 A10	0	A5 A11	0	A5 A12	0
A5 A13	0	A5 A14	0	A5 A15	0
A5 A16	0	A5 A17	0	A5 A18	0
A5 A19	0	A5 B1	0	A5 B2	0
A5 C1	0	A5 D1	0	A5 E1	0
A5 E2	0	A5 F1	0	A5 x	17

"A6"

Total observed counts: 140

Category	Counts	Category	Counts	Category	Counts
A6 A8	98	A6 A9	21	A6A10	7
A6 A11	7	A6 A12	0	A6 A13	0
A6 A14	0	A6 A15	0	A6A16	0
A6 A17	0	A6 A18	0	A6A19	0
A6 B1	0	A6 B2	0	A6 C1	0
A6 D1	0	A6 E1	0	A6 E2	0
A6 F1	0	A6 x	7		

"A8"

Total observed counts: 100

Category	Counts	Category	Counts	Category	Counts
A8 A9	73	A8 A10	14	A8 A11	13
A8 A12	0	A8 A13	0	A8 A14	0
A8 A15	0	A8 A16	0	A8 A17	0
A8 A18	0	A8 A19	0	A8 B1	0
A8 B2	0	A8 C1	0	A8 D1	0
A8 E1	0	A8 E2	0	A8 F1	0
A8 x	0				

"A9"

Category	Counts	Category	Counts	Category	Counts
A9 A10	46	A9 A11	47	A9A12	0
A9 A13	0	A9 A14	0	A9A15	0
A9 A16	0	A9 A17	0	A9A18	0
A9 A19	0	A9 B1	0	A9 B2	0
A9 C1	0	A9 D1	0	A9 E1	0
A9 E2	0	A9 F1	0	A9 x	1

"A10"

Total observed counts: 67

Category	Counts	Category	Counts	Category	Counts
A10 A11	67	A10 A12	0	A10 A13	0
A10 A14	0	A10 A15	0	A10 A16	0
A10A17	0	A10 A18	0	A10 A19	0
A10 B1	0	A10 B2	0	A10 C1	0
A10 D1	0	A10 E1	0	A10 E2	0
A10 F1	0	A10 x	0		

"A11"

Total observed counts: 134

Category	Counts	Category	Counts	Category	Counts
A11 A12	73	A11 A13	6	A11 A14	0
A11 A15	0	A11 A16	0	A11 A17	0
A11 A18	0	A11 A19	0	A11 B1	47
A11 B2	0	A11 C1	1	A11 D1	0
A11 E1	6	A11 E2	0	A11 F1	0
A11 x	1				

"A12"

Total observed counts: 73

Counts Category Counts	Category Counts	Car	egory Counts
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5

A12A13	72	A12 A14	0	A12A15	0
A12A16	0	A12 A17	0	A12A18	0
A12A19	0	A12 F1	0	A12 x	1

"A13"

Total observed counts: 78

Category	Counts	Category	Counts	Category	Counts
A13A14	76	A13 A15	0	A13A16	0
A13A17	0	A13 A18	0	A13 A19	0
A13 F1	0	A13 x	2		

"A14"

Total observed counts: 76

Category	Counts	Category	Counts	Category	Counts
A14 A15	43	A14 A16	4	A14 A17	0
A14 A18	0	A14 A19	0	A14 F1	0
A14 x	29				

"A15"

Total observed counts: 43

Category	Counts	Category	Counts	Category	Counts
A15A16	19	A15 A17	2	A15A18	0
A15A19	0	A15 x	22		

"A16"

Total observed counts: 20

Category	Counts	Category	Counts	Category	Counts
A16A17	17	A16 A18	0	A16 A19	0
A16 x	3				

"A17"

	Category	Counts	Category	Counts	Category	Counts
ı						

A17A18	22	A17 A19	0	A17 x	1

"A18"

Total observed counts: 22

Category	Counts	Category	Counts	Category	Counts
A18 A19	18	A18 x	4		

"A19"

Total observed counts: 18

Category	Counts	Category	Counts	Category	Counts
A19 x	18				

"B1"

Total observed counts: 47

Category	Counts	Category	Counts	Category	Counts
B1 B2	11	B1 C1	1	B1 D1	6
B1 E1	23	B1 E2	2	B1 A16	0
B1 A17	0	B1 A18	0	B1 A19	0
B1 x	4				

"B2"

Total observed counts: 11

Category	Counts	Category	Counts	Category	Counts
B2 A16	0	B2 A17	0	B2 A18	0
B2 A19	0	B2 x	11		

"C1"

Total observed counts: 2

Category	Counts	Category	Counts	Category	Counts
C1 A16	0	C1 A17	0	C1 A18	0
C1 A19	0	C1 x	2		

"D1"

Category	Counts	Category	Counts	Category	Counts
D1 A17	0	D1 A18	0	D1 A19	0
D1 x	6				

"E1"

Total observed counts: 29

Category	Counts	Category	Counts	Category	Counts
E1 E2	21	E1 A17	0	E1 A18	0
E1 A19	0	E1 x	8		

"E2"

Total observed counts: 23

Category	Counts	Category	Counts	Category	Counts
E2A17	4	E2 A18	0	E2A19	0
E2 x	19				

"F1"

Total observed counts: 4

Category	Counts	Category	Counts	Category	Counts
F1 A16	1	F1 A17	0	F1 A18	0
F1 A19	0	F1 x	3		

"B1aux"

Total observed counts: 47

Catego	ory	Counts	Category	Counts	Category	Counts
B1ab		18	B1a0	2	B10b	27

"C1aux"

Total observed counts: 2

Category	Counts	Category	Counts	Category	Counts
C1ab	2	C1a0	0	C10b	0

"D1aux"

Category	Counts	Category	Counts	Category	Counts
D1ab	0	D1a0	6	D10b	0

"A15aux"

Total observed counts: 43

Category	Counts	Category	Counts	Category	Counts
A15ab	41	A15a0	2	A150b	0

"A16aux"

Total observed counts: 20

Category	Counts	Category	Counts	Category	Counts
A16ab	20	A16a0	0	A160b	0

"A17aux"

Total observed counts: 23

Category	Counts	Category	Counts	Category	Counts
A17ab	19	A17a0	4	A170b	0

"A18aux"

Total observed counts: 22

Category	Counts	Category	Counts	Category	Counts
A18ab	22	A18a0	0	A180b	0

"A19aux"

Total observed counts: 18

Category	Counts	Category	Counts	Category	Counts
A19ab	10	A19a0	2	A190b	6

"E1aux"

Total observed counts: 29

Category	Counts	Category	Counts	Category	Counts
E1ab	15	E1a0	4	E10b	10

Parameter Estimates

Parameter	Estimate	s.e.
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sA1 0.909474 na sA2 0.833038 na sA3 0.837962 na sA4 0.79451 na sA5 0.635645 na sA6 0.910582 na sA8 0.713298 na sA9 0.976411 na sA10 0.982652 na sA11 0.970941 na sA12 0.968727 na sA13 0.791485 na sA14 0.73142 na sA15 2.2443 na sA16 0.477041 na sA17 0.78682 na
sA3 0.837962 na sA4 0.79451 na sA5 0.635645 na sA6 0.910582 na sA8 0.713298 na sA9 0.976411 na sA10 0.982652 na sA11 0.970941 na sA12 0.968727 na sA13 0.791485 na sA14 0.73142 na sA15 2.2443 na sA16 0.477041 na
sA4 0.79451 na sA5 0.635645 na sA6 0.910582 na sA8 0.713298 na sA9 0.976411 na sA10 0.982652 na sA11 0.970941 na sA12 0.968727 na sA13 0.791485 na sA14 0.73142 na sA15 2.2443 na sA16 0.477041 na
sA5 0.635645 na sA6 0.910582 na sA8 0.713298 na sA9 0.976411 na sA10 0.982652 na sA11 0.970941 na sA12 0.968727 na sA13 0.791485 na sA14 0.73142 na sA15 2.2443 na sA16 0.477041 na
sA6 0.910582 na sA8 0.713298 na sA9 0.976411 na sA10 0.982652 na sA11 0.970941 na sA12 0.968727 na sA13 0.791485 na sA14 0.73142 na sA15 2.2443 na sA16 0.477041 na
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sA15 2.2443na sA16 0.477041na
sA16 0.477041na
sA17 0.78682na
sA18 0.943131na
sA19 1.05336na
phiB1B2 0.170082na
phiB1C1 0.0788269na
phiB1D1 0.0358068na
phiB1E1 0.280584na
psiA1 0.479141na
psiA2 0.314301na
sE1 0.537888na
sE2 0.769254na
sF1 0.274514na

pA1	1.26928	na
pA2	0.327035	na
рАЗ	0.783635	na
pA4	0.992823	na
pA6	0.876406	na
pA8	0.688971	na
рА9	0.618876	na
pA10	0.488065	na
pA12	0.872378	na
pA13	0.710605	na
pA15a	4.29357	na
pA15b	0.882625	na
pA16a	0.838632	na
pA16b	0.838632	na
pA17b	0.348203	na
pA19a	0.192552	na
pA19b	0.913477	na
рВ1а	0.375511	na
pB1b	0.662289	na
pB2	1.55114	na
pC1a	2	na
pC1b	2	na
pD1a	0.969072	na
pD1b	-6.50956	na
pE1a	0.564261	na
pE1b	0.713216	na
pE2	1.54858	na

pF1	-6.32628	na
pA5	1.13487	na
sC1	-2.74983	na

Convenience Functions

Name	Estimate	s.e.
psiB	0.520859	na
psiF	0.685699	na
qA1	-0.269277	na
qA2	0.672965	na
qA3	0.216365	na
qA4	0.00717688	na
qA5	-0.134868	na
qA6	0.123594	na
qA8	0.311029	na
qA9	0.381124	na
qA10	0.511935	na
qA11	0	na
qA12	0.127622	na
qA13	0.289395	na
qA14	0	na
qA15a	-3.29357	na
qA15b	0.117375	na
qA15	-0.386582	na
pA15	1.38658	na
qA16a	0.161368	na
qA16b	0.161368	na

qA16 0.0260396 na pA16 0.97396 na qA17a 0 na qA17b 0.651797 na qA17 1 na pA17 1 na qA18a 0 na qA18 0 na qA18 1 na qA19a 0.807448 na qA19a 0.0865228 na qA19 0.0698627 na qA19 0.930137 na qE1a 0.435739 na qE1b 0.286784 na qE1 0.875037 na qE2 -0.548578 na qD1a 0.0309275 na qD1 0.232252 na qB1a 0.624489 na qB1a 0.624489 na qB1 0.210897 na qB1 0.789103 na			
qA17a 0 na qA17b 0.651797 na qA17 0 na pA17 1 na qA18a 0 na qA18b 0 na qA18 0 na qA18 1 na qA19a 0.807448 na qA19b 0.0865228 na qA19 0.0698627 na qE1a 0.435739 na qE1b 0.286784 na qE1 0.124963 na qE2 -0.548578 na qD1a 0.0309275 na qD1b 7.50956 na qD1 0.767748 na qB1a 0.624489 na qB1b 0.337711 na qB1 0.210897 na	qA16	0.0260396	na
qA17b 0.651797 na qA17 0 na pA17 1 na qA18a 0 na qA18b 0 na qA18 0 na pA18 1 na qA19a 0.807448 na qA19b 0.0865228 na qA19 0.0698627 na pA19 0.930137 na qE1a 0.435739 na qE1b 0.286784 na qE1 0.124963 na qE2 -0.548578 na qD1a 0.0309275 na qD1b 7.50956 na qD1 0.767748 na qB1a 0.624489 na qB1b 0.210897 na	pA16	0.97396	na
qA17 0 na pA17 1 na qA18a 0 na qA18b 0 na qA18 0 na pA18 1 na qA19a 0.807448 na qA19b 0.0865228 na qA19 0.0698627 na pA19 0.930137 na qE1a 0.435739 na qE1b 0.286784 na qE1 0.875037 na qE2 -0.548578 na qD1a 0.0309275 na qD1 0.232252 na pD1 0.767748 na qB1a 0.624489 na qB1b 0.337711 na qB1 0.210897 na	qA17a	0	na
pA17 1 na qA18a 0 na qA18b 0 na qA18 0 na pA18 1 na qA19a 0.807448 na qA19b 0.0865228 na qA19 0.0698627 na pA19 0.930137 na qE1a 0.435739 na qE1b 0.286784 na qE1 0.124963 na pE1 0.875037 na qE2 -0.548578 na qD1a 0.0309275 na qD1 0.232252 na pD1 0.767748 na qB1a 0.624489 na qB1b 0.210897 na	qA17b	0.651797	na
qA18a 0 na qA18b 0 na qA18 0 na pA18 1 na qA19a 0.807448 na qA19b 0.0865228 na qA19 0.0698627 na pA19 0.930137 na qE1a 0.435739 na qE1b 0.286784 na qE1 0.875037 na qE2 -0.548578 na qD1a 0.0309275 na qD1b 7.50956 na qD1 0.767748 na qB1a 0.624489 na qB1b 0.337711 na qB1 0.210897 na	qA17	0	na
qA18b 0 na qA18 0 na pA18 1 na qA19a 0.807448 na qA19b 0.0865228 na qA19 0.0698627 na pA19 0.930137 na qE1a 0.435739 na qE1b 0.286784 na qE1 0.124963 na pE1 0.875037 na qE2 -0.548578 na qD1a 0.0309275 na qD1 0.232252 na pD1 0.767748 na qB1a 0.624489 na qB1b 0.210897 na	pA17	1	na
qA18 0 na pA18 1 na qA19a 0.807448 na qA19b 0.0865228 na qA19 0.0698627 na pA19 0.930137 na qE1a 0.435739 na qE1b 0.286784 na qE1 0.875037 na qE2 -0.548578 na qD1a 0.0309275 na qD1b 7.50956 na qD1 0.767748 na qB1a 0.624489 na qB1b 0.337711 na qB1 0.210897 na	qA18a	0	na
pA18 1 na qA19a 0.807448 na qA19b 0.0865228 na qA19 0.0698627 na pA19 0.930137 na qE1a 0.435739 na qE1b 0.286784 na qE1 0.875037 na qE2 -0.548578 na qD1a 0.0309275 na qD1b 7.50956 na qD1 0.767748 na qB1a 0.624489 na qB1b 0.337711 na qB1 0.210897 na	qA18b	0	na
qA19a 0.807448 na qA19b 0.0865228 na qA19 0.0698627 na pA19 0.930137 na qE1a 0.435739 na qE1b 0.286784 na qE1 0.124963 na pE1 0.875037 na qE2 -0.548578 na qD1a 0.0309275 na qD1 0.232252 na pD1 0.767748 na qB1a 0.624489 na qB1b 0.337711 na qB1 0.210897 na	qA18	0	na
qA19b 0.0865228 na qA19 0.0698627 na pA19 0.930137 na qE1a 0.435739 na qE1b 0.286784 na qE1 0.124963 na pE1 0.875037 na qE2 -0.548578 na qD1a 0.0309275 na qD1 0.232252 na pD1 0.767748 na qB1a 0.624489 na qB1b 0.337711 na qB1 0.210897 na	pA18	1	na
qA19 0.0698627 na pA19 0.930137 na qE1a 0.435739 na qE1b 0.286784 na qE1 0.124963 na pE1 0.875037 na qE2 -0.548578 na qD1a 0.0309275 na qD1 0.232252 na pD1 0.767748 na qB1a 0.624489 na qB1b 0.337711 na qB1 0.210897 na	qA19a	0.807448	na
pA19 0.930137 na qE1a 0.435739 na qE1b 0.286784 na qE1 0.124963 na pE1 0.875037 na qE2 -0.548578 na qD1a 0.0309275 na qD1 7.50956 na qD1 0.767748 na qB1a 0.624489 na qB1b 0.337711 na qB1 0.210897 na	qA19b	0.0865228	na
qE1a 0.435739 na qE1b 0.286784 na qE1 0.124963 na pE1 0.875037 na qE2 -0.548578 na qD1a 0.0309275 na qD1b 7.50956 na qD1 0.232252 na pD1 0.767748 na qB1a 0.624489 na qB1b 0.337711 na qB1 0.210897 na	qA19	0.0698627	na
qE1b 0.286784 na qE1 0.124963 na pE1 0.875037 na qE2 -0.548578 na qD1a 0.0309275 na qD1 7.50956 na qD1 0.767748 na qB1a 0.624489 na qB1b 0.337711 na qB1 0.210897 na	pA19	0.930137	na
qE1 0.124963 na pE1 0.875037 na qE2 -0.548578 na qD1a 0.0309275 na qD1b 7.50956 na qD1 0.232252 na pD1 0.767748 na qB1a 0.624489 na qB1b 0.337711 na qB1 0.210897 na	qE1a	0.435739	na
pE1 0.875037na qE2 -0.548578na qD1a 0.0309275na qD1b 7.50956na qD1 0.232252na pD1 0.767748na qB1a 0.624489na qB1b 0.337711na qB1 0.210897na	qE1b	0.286784	na
qE2 -0.548578 na qD1a 0.0309275 na qD1b 7.50956 na qD1 0.232252 na pD1 0.767748 na qB1a 0.624489 na qB1b 0.337711 na qB1 0.210897 na	qE1	0.124963	na
qD1a 0.0309275 na qD1b 7.50956 na qD1 0.232252 na pD1 0.767748 na qB1a 0.624489 na qB1b 0.337711 na qB1 0.210897 na	pE1	0.875037	na
qD1b 7.50956 na qD1 0.232252 na pD1 0.767748 na qB1a 0.624489 na qB1b 0.337711 na qB1 0.210897 na	qE2	-0.548578	na
qD1 0.232252 na pD1 0.767748 na qB1a 0.624489 na qB1b 0.337711 na qB1 0.210897 na	qD1a	0.0309275	na
pD1 0.767748 na qB1a 0.624489 na qB1b 0.337711 na qB1 0.210897 na	qD1b	7.50956	na
qB1a 0.624489 na qB1b 0.337711 na qB1 0.210897 na	qD1	0.232252	na
qB1b 0.337711na qB1 0.210897na	pD1	0.767748	na
qB1 0.210897na	qB1a	0.624489	na
	qB1b	0.337711	na
pB1 0.789103na	qB1	0.210897	na
	pB1	0.789103	na

qB2	-0.551136	na
qC1a	-1	na
qC1b	-1	na
qC1	0.99999	na
pC1	5.7897e-07	na
qF1	7.32628	na
xA19	1	na
xA18	0.0202295	na
xA17	0.056869	na
xA16	0.21318	na
xA15	0.525607	na
xA14	6.80907	na
xA13	0.26858	na
xA12	0.270034	na
xB2	1	na
xC1	3.73457	na
xD1	1	na
xE1	0.394025	na
xE2	0.230746	na
xB1	0.657478	na
xF1	0.727009	na
xA11	0.117232	na
xA10	0.0290592	na
xA9	0.0319667	na
xA8	0.0354845	na
xA6	0.294574	na
xA5	0.12257	na

xA4	0.353847	na
xA3	0.207508	na
xA2	0.19966	na
xA1	0.278893	na
x0	0.0222249	na
gamma_B1A16	-0.21676	na
gamma_B1A17	-0.0123999	na
gamma_A14A16	2.96494	na
gamma_A11A16	-0.023066	na
gamma_A11A17	-0.0013195	na
pA14	1	na
pA11	1	na
pA17a	1	na
sB1	0	na
sD1	0	na
pA18a	1	na
pA18b	1	na