Supplementary Materials

List of Tables

		Type I Error			Power		
		D	D_{SB1}	D_{SB10}	D	D_{SB1}	D_{SB10}
N=110	$VM_{0,0}$	4.5	6.3	5.9	96.5	97.1	96.7
	$VM_{2,7}$	45.2	4.3	9.0	95.5	71.7	80.5
	$VM_{2,15}$	62.4	3.5	9.9	95.2	58.2	74.1
	$VM_{0,0;2,7}$	24.8	4.9	8.1	96.1	84.7	89.8
	$VM_{2,7;2,15}$	55.5	4.9	11.1	95.9	67.1	79.5
	$CN_{2,10}$	62.1	3.8	8.7	95.4	58.2	64.9
	$CN_{0,0;2,10}$	37.1	4.6	8.3	97.1	71.9	77.1
N=220	$VM_{0,0}$	5.6	5.8	5.9	100	100	100
	$VM_{2,7}$	46.6	4.4	6.5	99.9	97.3	98.2
	$VM_{2,15}$	67.1	3.8	9.4	99.9	90.7	95.2
	$VM_{0,0;2,7}$	23.8	3.9	5.4	99.7	98.7	99.3
	$VM_{2,7;2,15}$	60.2	4.7	8.3	99.8	93.7	95.6
	$CN_{2,10}$	58.1	3.9	5.5	99.8	91.9	91.9
	$CN_{0,0;2,10}$	34.0	6.3	8.1	99.8	96.2	95.6
N=880	$VM_{0,0}$	4.9	4.9	4.8	100	100	100
	$VM_{2,7}$	47.8	4.0	4.9	100	100	100
	$VM_{2,15}$	70.6	4.1	5.5	100	100	100
	$VM_{0,0;2,7}$	27.0	5.1	5.9	100	100	100
	$VM_{2,7;2,15}$	61.1	4.0	5.6	100	100	100
	$CN_{2,10}$	56.9	3.5	3.7	100	100	100
	$CN_{0,0;2,10}$	33.2	4.6	4.8	100	100	100
N_1=55, N_2=165	$VM_{0,0}$	6.6	8.2	7.6	96.2	96.4	96.5
	$VM_{2,7}$	45.3	4.9	8.9	95.2	70.0	79.9
	$VM_{2,15}$	59.9	4.5	12.2	96.4	56.5	76.1
	$VM_{0,0;2,7}$	13.8	5.6	6.8	93.5	87.1	88.4
	$VM_{2,7;2,15}$	50.1	3.5	9.9	94.4	68.3	78.8
	$CN_{2,10}$	57.1	3.3	8.9	95.0	54.8	63.3
	$CN_{0,0;2,10}$	19.6	6.2	6.9	95.1	79.9	81.3
N_1=110, N_2=330	$VM_{0,0}$	5.8	6.1	6.4	99.9	99.9	99.9
	$VM_{2,7}$	45.9	3.4	7.2	99.8	96.3	97.2
	$VM_{2,15}$	64.5	3.5	8.4	99.5	86.2	92.8
	$VM_{0,0;2,7}$	15.3	5.1	6.2	100	99.7	99.7
	$VM_{2,7;2,15}$	51.5	4.2	7.3	99.8	92.5	95.7
	$CN_{2,10}$	62.6	3.8	6.6	99.8	89.8	90.6
	$CN_{0,0;2,10}$	19.8	5.7	6.0	99.8	98.7	98.6
N_1=440, N_2=1320	$VM_{0,0}$	5.6	5.4	5.3	100	100	100
	$VM_{2,7}$	49.9	5.1	6.8	100	100	100
	$VM_{2,15}$	70.5	2.4	4.9	100	100	100
	$VM_{0,0;2,7}$	15.6	5.0	5.4	100	100	100
	$VM_{2,7;2,15}$	58.0	3.6	5.6	100	100	100
	$CN_{2,10}$	56.6	3.8	5.0	100	100	100
	$CN_{0,0;2,10}$	19.7	6.7	6.9	100	100	100

Table 1. *Type I Error Rates and Power of Difference Tests When Testing Weak Invariance When p=8.* Note: Cells shaded light green, medium green, and dark green are Type I error rates greater than 6.25%, 7.5%, and 10% respectively. Cells shaded pink and dark pink are Type I error rates less than 3.75% and 2.5% respectively.

		Type I Error			Power		
		D	D_{SB1}	D_{SB10}	D	D_{SB1}	D_{SB10}
N=110	$VM_{0,0}$	5.3	7.5	7.3	100	100	100
	$VM_{2,7}$	75.2	2.3	11.4	100	90.1	97.9
	$VM_{2,15}$	91.9	0.8	14.6	100	65.6	95.0
	$VM_{0,0;2,7}$	46.0	2.9	11.4	99.9	96.7	99.5
	$VM_{2,7;2,15}$	84.0	1.6	12.2	100	80.6	96.6
	$CN_{2,10}$	86.2	1.1	10.4	100	87.0	94.4
	$CN_{0,0;2,10}$	54.2	2.5	9.4	100	94.8	97.3
N=220	$VM_{0,0}$	5.2	5.7	5.6	100	100	100
	$VM_{2,7}$	76.7	1.4	8.2	100	99.9	100
	$VM_{2,15}$	93.2	0.7	9.2	100	96.6	99.6
	$VM_{0,0;2,7}$	45.3	2.9	6.5	100	100	100
	$VM_{2,7;2,15}$	88.3	1.1	8.5	100	98.6	100
	$CN_{2,10}$	83.6	2.3	6.7	100	100	100
	$CN_{0,0;2,10}$	53.5	2.0	6.5	100	100	100
N=880	$VM_{0,0}$	6.1	6.4	6.2	100	100	100
	$VM_{2,7}$	81.2	3.0	4.9	100	100	100
	$VM_{2,15}$	95.0	2.2	7.0	100	100	100
	$VM_{0,0;2,7}$	51.4	3.7	6.1	100	100	100
	$VM_{2,7;2,15}$	90.8	3.0	5.9	100	100	100
	$CN_{2,10}$	83.4	4.2	5.6	100	100	100
	$CN_{0,0;2,10}$	55.8	4.9	5.4	100	100	100
N_1=55, N_2=165	$VM_{0,0}$	5.6	7.9	7.5	100	99.9	99.9
	$VM_{2,7}$	71.9	1.8	14.0	100	85.9	97.6
	$VM_{2,15}$	90.2	1.2	15.2	99.9	61.4	94.3
	$VM_{0,0;2,7}$	26.1	6.7	9.9	100	99.6	99.9
	$VM_{2,7;2,15}$	82.1	1.9	13.1	99.9	78	96.7
	$CN_{2,10}$	86.9	0.9	13.0	99.9	76.6	91.5
	$CN_{0,0;2,10}$	28.1	6.2	8.6	100	98.9	98.9
N_1=110, N_2=330	$VM_{0,0}$	4.9	6.0	6.1	100	100	100
	$VM_{2,7}$	76.3	1.5	8.2	100	99.4	100
	$VM_{2,15}$	91.2	0.8	10.1	100	92.9	99.7
	$VM_{0,0;2,7}$	24.8	4.8	7.1	100	100	100
	$VM_{2,7;2,15}$	83.7	1.5	8.8	100	99.0	100
	$CN_{2,10}$	83.9	1.9	9.5	100	99.6	99.7
	$CN_{0,0;2,10}$	27.8	4.9	7.3	100	100	100
N_1=440, N_2=1320	$VM_{0,0}$	4.6	5.1	4.8	100	100	100
	$VM_{2,7}$	78.7	3.0	6.2	100	100	100
	$VM_{2,15}$	94.5	1.3	5.3	100	99.9	100
	$VM_{0,0;2,7}$	24.8	4.9	5.6	100	100	100
	$VM_{2,7;2,15}$	86.1	2.6	6.7	100	100	100
	$CN_{2,10}$	85.1	4.3	6.6	100	100	100
	$CN_{0,0;2,10}$	26.6	4.2	5.0	100	100	100

Table 2. *Type I Error Rates and Power of Difference Tests When Testing Weak Invariance When p=16.*
Note: Cells shaded light green, medium green, and dark green are Type I error rates greater than 6.25%, 7.5%, and 10% respectively. Cells shaded pink and dark pink are Type I error rates less than 3.75% and 2.5% respectively.

		Type I Error			Power		
		D	D_{SB1}	D_{SB10}	D	D_{SB1}	D_{SB10}
N=110	$VM_{0,0}$	4.0	7.5	4.8	98.9	99.5	99.2
	$VM_{2,7}$	5.3	10.7	6.1	99.0	99.4	99.1
	$VM_{2,15}$	4.0	10	4.8	98.7	99.4	98.7
	$VM_{0,0;2,7}$	6.1	10.4	6.7	98.6	99.2	98.5
	$VM_{2,7;2,15}$	4.6	9.3	4.9	98.3	99.2	98.5
	$CN_{2,10}$	4.4	14.4	4.8	98.1	99.3	98.2
	$CN_{0,0;2,10}$	5.0	10.1	5.5	99.1	99.5	99.2
N=220	$VM_{0,0}$	4.4	5.1	4.5	100	100	100
	$VM_{2,7}$	4.9	7.8	5.2	100	100	100
	$VM_{2,15}$	4.8	7.0	5.1	100	100	100
	$VM_{0,0;2,7}$	4.8	6.6	5.1	100	100	100
	$VM_{2,7;2,15}$	4.7	8.6	5.1	100	100	100
	$CN_{2,10}$	3.9	8	4.4	100	100	100
	$CN_{0,0;2,10}$	4.8	7.6	5.1	100	100	100
N=880	$VM_{0,0}$	4.4	4.8	4.5	100	100	100
	$VM_{2,7}$	4.9	5.7	5.0	100	100	100
	$VM_{2,15}$	5.0	5.6	4.9	100	100	100
	$VM_{0,0;2,7}$	3.7	4.1	3.5	100	100	100
	$VM_{2,7;2,15}$	5.1	5.9	5.1	100	100	100
	$CN_{2,10}$	4.7	6.1	4.7	100	100	100
	$CN_{0,0;2,10}$	4.6	5.4	4.7	100	100	100
N_1=55, N_2=165	$VM_{0,0}$	4.3	10.2	4.8	94.1	97.4	94.7
	$VM_{2,7}$	4.6	13.1	4.9	94.4	97.9	95.6
	$VM_{2,15}$	5.4	15.2	6.2	94.3	98.0	95.4
	$VM_{0,0;2,7}$	4.4	11.3	5.4	94.6	97.5	95.1
	$VM_{2,7;2,15}$	4.4	14.4	5.1	94.5	98.1	95.3
	$CN_{2,10}$	4.5	18.9	5.5	95.1	98.2	95.8
	$CN_{0,0;2,10}$	6.8	13.0	7.5	94.0	97.4	94.6
N_1=110, N_2=330	$VM_{0,0}$	5.2	8.2	5.9	100	100	100
	$VM_{2,7}$	3.7	7.8	4.1	99.9	100	100
	$VM_{2,15}$	4.7	9.4	5.1	99.8	100	99.8
	$VM_{0,0;2,7}$	6.0	9.0	6.1	100	100	100
	$VM_{2,7;2,15}$	4.2	8.6	4.8	99.9	100	100
	$CN_{2,10}$	4.0	11.5	4.6	100	100	100
	$CN_{0,0;2,10}$	5.8	9	6.2	100	100	100
N_1=440, N_2=1320	$VM_{0,0}$	5.3	5.8	5.3	100	100	100
	$VM_{2,7}$	5.2	6.2	5.5	100	100	100
	$VM_{2,15}$	5.0	6.2	5.1	100	100	100
	$VM_{0,0;2,7}$	4.4	5.0	4.4	100	100	100
	$VM_{2,7;2,15}$	4.6	6.2	4.9	100	100	100
	$CN_{2,10}$	5.4	7.1	5.6	100	100	100
	$CN_{0,0;2,10}$	5.1	5.6	5.1	100	100	100

Table 3. *Type I Error Rates and Power of Difference Tests When Testing Strong Invariance When p=8.* Note: Cells shaded light green, medium green, and dark green are Type I error rates greater than 6.25%, 7.5%, and 10% respectively. Cells shaded pink and dark pink are Type I error rates less than 3.75% and 2.5% respectively.

		Type I Error			Power		
		D	D_{SB1}	D_{SB10}	D	D_{SB1}	D_{SB10}
N=110	$VM_{0,0}$	4.7	16.7	5.1	99.9	99.9	99.9
	$VM_{2,7}$	3.6	20.7	4.8	100	100	100
	$VM_{2,15}$	4.9	26.6	6.1	100	100	100
	$VM_{0,0;2,7}$	6.0	18.8	6.8	100	100	100
	$VM_{2,7;2,15}$	4.6	21.2	5.2	100	100	100
	$CN_{2,10}$	5.4	34.8	6.2	100	100	100
	$CN_{0,0;2,10}$	4.7	24.3	5.1	100	100	100
N=220	$VM_{0,0}$	6.3	10.5	6.4	100	100	100
	$VM_{2,7}$	5.4	12.5	5.6	100	100	100
	$VM_{2,15}$	4.9	15.7	5.3	100	100	100
	$VM_{0,0;2,7}$	6.2	12.8	6.2	100	100	100
	$VM_{2,7;2,15}$	4.4	12.8	5.1	100	100	100
	$CN_{2,10}$	4.6	19.1	4.8	100	100	100
	$CN_{0,0;2,10}$	5.7	14.5	5.9	100	100	100
N=880	$VM_{0,0}$	4.8	6.3	5.0	100	100	100
	$VM_{2,7}$	4.7	6.0	4.7	100	100	100
	$VM_{2,15}$	4.4	5.7	4.4	100	100	100
	$VM_{0,0;2,7}$	5.1	6.0	4.9	100	100	100
	$VM_{2,7;2,15}$	5.2	7.3	5.3	100	100	100
	$CN_{2,10}$	5.2	8.5	5.3	100	100	100
	$CN_{0,0;2,10}$	4.8	6.5	4.9	100	100	100
N_1=55, N_2=165	$VM_{0,0}$	4.4	23.6	5.0	99.3	100	99.4
	$VM_{2,7}$	6.2	39.4	7.8	99.8	100	99.8
	$VM_{2,15}$	3.8	38.2	5.8	99.8	100	99.9
	$VM_{0,0;2,7}$	3.4	25.8	4.1	99.8	100	99.8
	$VM_{2,7;2,15}$	6.1	36.7	7.7	99.5	100	99.6
	$CN_{2,10}$	4.3	56.1	5.8	99.7	100	99.8
	$CN_{0,0;2,10}$	6.8	30.2	7.7	99.5	100	99.8
N_1=110, N_2=330	$VM_{0,0}$	4.2	12.1	4.6	100	100	100
	$VM_{2,7}$	5.5	20.4	6.2	100	100	100
	$VM_{2,15}$	5.2	23.5	6.2	100	100	100
	$VM_{0,0;2,7}$	4.7	13.3	5.2	100	100	100
	$VM_{2,7;2,15}$	5.6	20.1	6.6	100	100	100
	$CN_{2,10}$	5.0	29.6	5.4	100	100	100
	$CN_{0,0;2,10}$	6.0	15.8	6.8	100	100	100
N_1=440, N_2=1320	$VM_{0,0}$	5.4	7.8	5.7	100	100	100
	$VM_{2,7}$	5.8	8.5	5.9	100	100	100
	$VM_{2,15}$	4.6	8.4	5.0	100	100	100
	$VM_{0,0;2,7}$	5.5	7.6	5.3	100	100	100
	$VM_{2,7;2,15}$	5.5	9.3	6.0	100	100	100
	$CN_{2,10}$	5.2	9.6	5.3	100	100	100
	$CN_{0,0;2,10}$	5.6	7.3	5.7	100	100	100

Table 4. *Type I Error Rates and Power of Difference Tests When Testing Strong Invariance When p=16.*
Note: Cells shaded light green, medium green, and dark green are Type I error rates greater than 6.25%, 7.5%, and 10% respectively. Cells shaded pink and dark pink are Type I error rates less than 3.75% and 2.5% respectively.

		Type I Error			Power		
		D	D_{SB1}	D_{SB10}	D	D_{SB1}	D_{SB10}
N=110	$VM_{0,0}$	3.7	6.2	5.9	98.8	98.8	98.8
	$VM_{2,7}$	83.6	7.7	7.8	99.0	59.6	59.1
	$VM_{2,15}$	95.1	7.7	7.5	99.5	47.6	45.2
	$VM_{0,0;2,7}$	59.4	14.2	12.4	99.2	78.8	79.8
	$VM_{2,7;2,15}$	91.1	8.8	10.2	99.5	52.6	49.7
	$CN_{2,10}$	65.8	0.8	2.1	98.7	55.3	58.7
	$CN_{0,0;2,10}$	40.7	8.1	4.9	98.4	74.7	80.9
N=220	$VM_{0,0}$	5.5	6.4	6.2	100	100	100
	$VM_{2,7}$	82.8	6.5	7.4	99.9	86.7	86.0
	$VM_{2,15}$	96.4	6.1	6.6	100	65.1	63.8
	$VM_{0,0;2,7}$	61.3	11.2	10.2	99.9	96.9	96.9
	$VM_{2,7;2,15}$	94.6	7.3	7.2	99.9	73.0	72.1
	$CN_{2,10}$	67.0	1.7	2.2	99.9	90.8	90.8
	$CN_{0,0;2,10}$	39.9	5.7	3.7	100	98.4	99.1
N=880	$VM_{0,0}$	4.6	4.7	4.8	100	100	100
	$VM_{2,7}$	86.9	5.6	5.8	100	100	100
	$VM_{2,15}$	98.0	4.2	4.3	100	99.1	99
	$VM_{0,0;2,7}$	62.6	6.7	6.4	100	100	100
	$VM_{2,7;2,15}$	94.9	5.8	6.0	100	99.8	99.7
	$CN_{2,10}$	67.3	1.6	1.8	100	100	100
	$CN_{0,0;2,10}$	38.4	2.5	1.6	100	100	100
N_1=55, N_2=165	$VM_{0,0}$	5.9	14.1	8.1	95.4	96.6	96.6
	$VM_{2,7}$	80.4	17.6	9.0	98.1	57.2	53.3
	$VM_{2,15}$	93.9	17.1	12.0	98.8	45.6	39.7
	$VM_{0,0;2,7}$	35.1	7.2	8.0	96.6	81.7	80.6
	$VM_{2,7;2,15}$	86.7	12.8	8.6	97.5	48.1	45.6
	$CN_{2,10}$	65.2	8.1	3.4	96.8	47.2	43.9
	$CN_{0,0;2,10}$	22.9	5.3	6.3	93.8	81.4	80.3
N_1=110, N_2=330	$VM_{0,0}$	4.1	8.6	3.8	100	100	100
	$VM_{2,7}$	85	12.0	7.4	99.8	76.1	74.4
	$VM_{2,15}$	96.4	12.6	7.2	99.9	55.0	50.5
	$VM_{0,0;2,7}$	36.6	5.4	5.5	100	98.4	98.5
	$VM_{2,7;2,15}$	90.5	8.0	6.7	99.6	66.0	66.0
	$CN_{2,10}$	66.2	5.0	1.7	99.6	78.3	76.9
	$CN_{0,0;2,10}$	23.9	3.9	4.0	99.9	99.3	99.3
N_1=440, N_2=1320	$VM_{0,0}$	4.9	6.1	5.4	100	100	100
	$VM_{2,7}$	86.8	7.2	5.1	100	99.9	99.9
	$VM_{2,15}$	97.5	6.8	6.1	100	96.1	95.8
	$VM_{0,0;2,7}$	38.6	5.2	5.3	100	100	100
	$VM_{2,7;2,15}$	91.9	5.3	4.6	100	99.7	99.7
	$CN_{2,10}$	66.6	3.5	1.5	100	100	100
	$CN_{0,0;2,10}$	19.5	2.9	2.7	100	100	100

Table 5. *Type I Error Rates and Power of Difference Tests When Testing Strict Invariance When p=8.* Note: Cells shaded light green, medium green, and dark green are Type I error rates greater than 6.25%, 7.5%, and 10% respectively. Cells shaded pink and dark pink are Type I error rates less than 3.75% and 2.5% respectively.

		Type I Error			Power		
		D	D_{SB1}	D_{SB10}	D	D_{SB1}	D_{SB10}
N=110	$VM_{0,0}$	5.7	8.9	8.1	100	100	100
	$VM_{2,7}$	96.8	5.5	10.5	100	89.9	90.8
	$VM_{2,15}$	99.7	4.9	12	100	73.7	78.7
	$VM_{0,0;2,7}$	84	17.8	14.7	100	97.3	98.8
	$VM_{2,7;2,15}$	99.1	7.7	13.9	100	80.8	82.2
	$CN_{2,10}$	86.4	0.1	1.6	100	85.1	91.2
	$CN_{0,0;2,10}$	59.8	17.7	5.3	100	90.5	99.2
N=220	$VM_{0,0}$	7.0	7.8	7.6	100	100	100
	$VM_{2,7}$	97.4	3.8	6.4	100	99.9	99.8
	$VM_{2,15}$	99.7	4.1	7.3	100	91.2	92.6
	$VM_{0,0;2,7}$	83.2	12.9	9.7	100	100	100
	$VM_{2,7;2,15}$	99.8	4.9	7.1	100	96.4	97.1
	$CN_{2,10}$	89.5	0.1	1.7	100	99.8	99.9
	$CN_{0,0;2,10}$	59.0	9.1	2.8	100	100	100
N=880	$VM_{0,0}$	4.1	4.2	4.3	100	100	100
	$VM_{2,7}$	98.1	4.8	5.4	100	100	100
	$VM_{2,15}$	99.9	4.3	6.3	100	100	100
	$VM_{0,0;2,7}$	83.0	8.3	6.5	100	100	100
	$VM_{2,7;2,15}$	99.9	6.1	7.0	100	100	100
	$CN_{2,10}$	85.9	0.4	0.4	100	100	100
	$CN_{0,0;2,10}$	60.0	3.6	1.9	100	100	100
N_1=55, N_2=165	$VM_{0,0}$	5.4	17.5	8.0	100	99.9	100
	$VM_{2,7}$	96.0	24.9	12.4	100	68.6	80.2
	$VM_{2,15}$	99.9	20.8	12.1	100	55.0	62.3
	$VM_{0,0;2,7}$	52.1	7.1	11.0	99.9	96.9	99.0
	$VM_{2,7;2,15}$	98.5	15.8	11.4	100	57.0	70.2
	$CN_{2,10}$	85.3	7.9	1.7	99.9	57.2	75.0
	$CN_{0,0;2,10}$	33.6	2.0	5.5	99.8	98.3	98.0
N_1=110, N_2=330	$VM_{0,0}$	5.2	15.9	6.8	100	100	100
	$VM_{2,7}$	98	19.1	9.2	100	91.8	96.7
	$VM_{2,15}$	99.9	15.9	10.9	100	73.7	78.8
	$VM_{0,0;2,7}$	56.5	7.6	10.0	100	100	100
	$VM_{2,7;2,15}$	99.0	11.0	7.0	100	86.7	92.9
	$CN_{2,10}$	88.0	6.4	1.4	100	95.9	98.9
	$CN_{0,0;2,10}$	30.5	1.5	3.2	100	100	100
N_1=440, N_2=1320	$VM_{0,0}$	5.6	7.9	6.2	100	100	100
	$VM_{2,7}$	98.1	9.3	5.6	100	100	100
	$VM_{2,15}$	99.9	8.8	5.1	100	99.9	100
	$VM_{0,0;2,7}$	55.7	7.8	8.0	100	100	100
	$VM_{2,7;2,15}$	99.6	6.4	4.5	100	100	100
	$CN_{2,10}$	87.0	2.1	0.5	100	100	100
	$CN_{0,0;2,10}$	26.5	1.1	1.3	100	100	100

Table 6. *Type I Error Rates and Power of Difference Tests When Testing Strict Invariance When p=16.* Note: Cells shaded light green, medium green, and dark green are Type I error rates greater than 6.25%, 7.5%, and 10% respectively. Cells shaded pink and dark pink are Type I error rates less than 3.75% and 2.5% respectively.

		$T_{0,ML}$	$T_{0,SB}$	$T_{1,ML}$	$T_{1,SB}$	$T_{2,ML}$	$T_{2,SB}$	$T_{3,ML}$	$T_{3,SB}$
N=110	$VM_{0,0}$	6.1	8.0	6.2	7.7	6.3	9.4	5.8	9.1
	$VM_{2,7}$	53.7	11.0	67.9	10.9	64.8	12.2	89.4	16.0
	$VM_{2,15}$	55.3	13.3	74.4	12.9	72.3	15.3	96.5	19.9
	$VM_{0,0;2,7}$	28.3	9.6	36.1	9.8	34.4	11.1	60.5	15.9
	$VM_{2,7;2,15}$	56.4	14.7	72.7	14.4	69.2	15.7	94.6	20.8
	$CN_{2,10}$	99.6	11.7	99.9	12.1	99.9	13.9	100	8.6
	$CN_{0,0;2,10}$	85.9	11.4	89.5	11.0	88.2	11.3	91.7	12.1
N=220	$VM_{0,0}$	4.4	5.4	5.4	6.3	5.8	6.7	5.8	6.4
	$VM_{2,7}$	51.2	8.1	67.5	8.4	63.6	8.7	90.5	11.0
	$VM_{2,15}$	62.5	10.1	82.9	10.0	80.1	11.6	98.4	15.3
	$VM_{0,0;2,7}$	26.5	7.2	33.9	6.6	32.0	7.1	59.2	11.0
	$VM_{2,7;2,15}$	58.7	8.3	78.7	7.9	75.8	9.2	96.8	16.2
	$CN_{2,10}$	99.7	7.7	99.8	7.1	99.5	7.8	100	5.0
	$CN_{0,0;2,10}$	82.6	8.3	86.9	8.8	85.9	9.8	90.1	6.7
N=880	$VM_{0,0}$	5.0	4.8	6.2	6.6	5.3	6.1	5.3	5.5
	$VM_{2,7}$	57.5	4.8	73.0	5.5	70.2	5.7	92.8	9.2
	$VM_{2,15}$	75.2	5.8	90.3	6.4	87.7	7.1	99.5	13.2
	$VM_{0,0;2,7}$	29.9	6.9	40.7	6.8	37.7	6.8	62.3	8.7
	$VM_{2,7;2,15}$	64.4	5.6	81.4	5.4	77.9	5.9	97.9	10.1
	$CN_{2,10}$	99.5	6.2	99.9	6.1	99.7	7.7	99.9	4.4
	$CN_{0,0;2,10}$	82.0	7.8	86.8	7.0	85.1	7.1	90.2	6.0
N_1=55, N_2=165	$VM_{0,0}$	6.9	10.3	7.2	11.4	6.8	11.7	7.2	11.7
	$VM_{2,7}$	52.5	14.8	67.4	12.3	63.4	14.9	86.6	19.1
	$VM_{2,15}$	54.2	18.8	75.6	16.7	73.8	18.7	96.8	27.1
	$VM_{0,0;2,7}$	31.5	11.2	36.7	11.5	34.2	12.3	47.4	12.5
	$VM_{2,7;2,15}$	54.5	15.2	69.1	12.5	66.2	15.5	92.2	20.2
	$CN_{2,10}$	99.7	16.1	99.7	14.2	99.7	16.0	99.8	11.7
	$CN_{0,0;2,10}$	85.2	12.6	86.3	13.2	84.6	14.1	87.5	12.3
N_1=110, N_2=330	$VM_{0,0}$	5.4	6.2	5.3	6.4	5.6	7.1	5.4	6.8
	$VM_{2,7}$	52.8	8.9	68.0	7.7	63.1	9.4	90.0	13.2
	$VM_{2,15}$	60.3	9.5	77.7	7.2	75.6	8.4	97.6	14.2
	$VM_{0,0;2,7}$	28.4	8.0	31.4	7.0	30.8	8.6	43.2	7.8
	$VM_{2,7;2,15}$	59.6	8.8	73.6	7.5	70.7	9.9	93.9	13.9
	$CN_{2,10}$	99.9	8.4	100	8.7	99.9	10.1	100	6.9
	$CN_{0,0;2,10}$	85.5	9.8	86.1	10.7	84.1	11.1	86.5	10.3
N_1=440, N_2=1320	$VM_{0,0}$	6.0	6.4	5.1	5.5	5.4	6.1	5.1	5.6
	$VM_{2,7}$	56.9	5.9	72.3	6.2	68.4	7.7	92.5	10.1
	$VM_{2,15}$	73.6	6.3	89.2	6.5	86.5	7.9	99.3	12.3
	$VM_{0,0;2,7}$	27.9	6.1	30.4	6.1	27.3	6.4	43.8	6.2
	$VM_{2,7;2,15}$	67.0	7.9	80.8	7.3	79.5	8.1	96.7	10.3
	$CN_{2,10}$	99.0	4.5	99.8	5.1	99.4	5.7	99.8	3.4
	$CN_{0,0;2,10}$	82.2	6.9	84.1	6.7	81.8	7.2	82.8	5.7

Table 7. *Type I Error Rates of Tests of Fit When p=8*

		$T_{0,ML}$	$T_{0,SB}$	$T_{1,ML}$	$T_{1,SB}$	$T_{2,ML}$	$T_{2,SB}$	$T_{3,ML}$	$T_{3,SB}$
N=110	$VM_{0,0}$	16.5	25.3	17.1	24.5	17.8	28.3	16.5	29.6
	$VM_{2,7}$	99.0	35.6	99.7	29.1	99.7	32.2	100	30.5
	$VM_{2,15}$	99.4	40.2	99.8	27.7	99.7	31.5	100	34.4
	$VM_{0,0;2,7}$	87.3	32.3	91.3	28.0	90.5	31.5	96.6	34.1
	$VM_{2,7;2,15}$	99.4	36.4	99.9	27.1	99.9	30.1	100	33.6
	$CN_{2,10}$	100	41.7	100	36.7	100	41.5	100	26.5
	$CN_{0,0;2,10}$	100	33.9	100	31.4	100	35.7	100	34.3
N=220	$VM_{0,0}$	9.0	11.8	8.5	12.6	9.1	13.4	8.8	13.7
	$VM_{2,7}$	99.5	14.9	99.6	11.3	99.6	13.3	99.9	13.3
	$VM_{2,15}$	99.9	18.1	100	12.1	100	13.6	100	15.1
	$VM_{0,0;2,7}$	82.1	13.0	89.3	12.6	88.2	14.3	96.5	17.3
	$VM_{2,7;2,15}$	99.6	14.7	100	11.0	100	11.9	100	12.5
	$CN_{2,10}$	100	15.8	100	14.2	100	15.8	100	10.3
	$CN_{0,0;2,10}$	100	16.8	100	15.5	100	17	100	14.5
N=880	$VM_{0,0}$	6.2	6.7	6.3	6.8	6.4	7.3	6.3	7.1
	$VM_{2,7}$	99.8	7.6	100	6.8	99.8	7.2	100	9.1
	$VM_{2,15}$	100	8.1	100	6.8	100	7.0	100	10.2
	$VM_{0,0;2,7}$	80.5	7.6	87.9	8.1	85.7	7.9	96.6	9.3
	$VM_{2,7;2,15}$	99.9	6.7	100	5.5	100	5.9	100	10.2
	$CN_{2,10}$	100	8.0	100	7.8	100	8.0	100	4.9
	$CN_{0,0;2,10}$	100	8.3	100	8.3	100	8.6	100	8.1
N_1=55, N_2=165	$VM_{0,0}$	25.1	38.0	24.4	38.7	23.7	42.0	21.9	39.0
	$VM_{2,7}$	99.5	50.2	99.9	39.1	100	46.8	100	42.8
	$VM_{2,15}$	99.8	55.0	100	37.6	100	44.0	100	39.0
	$VM_{0,0;2,7}$	89.6	36.8	91.9	35.2	89.9	39.2	94.8	33.3
	$VM_{2,7;2,15}$	99.6	51.5	99.7	40.7	99.7	47.1	100	36.1
	$CN_{2,10}$	100	51.9	100	42.9	100	51.8	100	32.4
	$CN_{0,0;2,10}$	100	36.3	100	36.4	100	39.9	100	36.8
N_1=110, N_2=330	$VM_{0,0}$	11.2	16.0	11.4	15.4	11.2	16.8	10.3	17.1
	$VM_{2,7}$	99.2	17.7	99.7	12.6	99.4	15.2	100	19.4
	$VM_{2,15}$	99.3	23.3	99.9	13.3	99.7	16.1	100	22.8
	$VM_{0,0;2,7}$	83.3	13.1	86.9	13.5	84.6	15.7	91.8	14.8
	$VM_{2,7;2,15}$	99.7	22.2	100	15.9	100	19.2	100	18.5
	$CN_{2,10}$	100	21.0	100	17.8	100	20.5	100	12.9
	$CN_{0,0;2,10}$	100	15.4	100	15.5	100	16.7	100	14.7
N_1=440, N_2=1320	$VM_{0,0}$	6.6	7.9	6.0	6.5	5.9	7.5	6.1	7.5
	$VM_{2,7}$	99.7	6.3	100	5.5	100	5.8	100	8.4
	$VM_{2,15}$	100	8.2	100	6.7	100	6.8	100	11.9
	$VM_{0,0;2,7}$	82.3	5.4	87.1	5.3	86.0	5.4	91.9	5.9
	$VM_{2,7;2,15}$	100	7.8	100	7.0	100	7.9	100	8.1
	$CN_{2,10}$	100	8.9	100	8.0	100	8.2	100	5.3
	$CN_{0,0;2,10}$	100	7.7	100	7.3	100	8.0	100	6.4

Table 8. *Type I Error Rates of Tests of Fit When p=16*

		$T_{0,ML}$	$T_{0,SB}$	$T_{1,ML}$	$T_{1,SB}$
N=110	$VM_{0,0}$	8.4	10.1	71.0	75.5
	$VM_{2,7}$	45.0	12.0	91.5	57.2
	$VM_{2,15}$	47.9	14.3	92.4	56.9
	$VM_{0,0;2,7}$	18.5	9.4	84.7	67.7
	$VM_{2,7;2,15}$	43.0	12.1	92.5	59.9
	$CN_{2,10}$	99.5	10.1	99.9	40.5
	$CN_{0,0;2,10}$	83.6	13.4	99.4	52.8
N=220	$VM_{0,0}$	6.2	6.8	96.9	97.3
	$VM_{2,7}$	44.2	7.7	99.8	87.5
	$VM_{2,15}$	52.4	7.7	99.7	83.0
	$VM_{0,0;2,7}$	16.7	7.4	97.8	93.6
	$VM_{2,7;2,15}$	43.9	8.9	99.2	87.1
	$CN_{2,10}$	99.5	7.1	100	61.7
	$CN_{0,0;2,10}$	81.6	8.4	99.9	76.0
N=880	$VM_{0,0}$	5.5	6.0	100	100
	$VM_{2,7}$	47.4	5.8	100	100
	$VM_{2,15}$	59.6	6.0	100	100
	$VM_{0,0;2,7}$	20.0	5.7	100	100
	$VM_{2,7;2,15}$	53.2	5.5	100	100
	$CN_{2,10}$	99.2	5.0	100	100
	$CN_{0,0;2,10}$	82.4	7.9	100	100
N_1=55, N_2=165	$VM_{0,0}$	5.5	8.9	67.1	72.7
	$VM_{2,7}$	44.1	13.9	89.7	60.7
	$VM_{2,15}$	45.2	16.9	90.6	63.4
	$VM_{0,0;2,7}$	21.2	11.3	80.8	67.9
	$VM_{2,7;2,15}$	42.2	15.8	91.1	65.0
	$CN_{2,10}$	99.5	14.6	100	43.0
	$CN_{0,0;2,10}$	85.5	12.3	98.4	46.6
N_1=110, N_2=330	$VM_{0,0}$	5.0	5.7	96.2	96.9
	$VM_{2,7}$	45.1	10.0	99.2	87.6
	$VM_{2,15}$	47.8	9.1	98.2	81.7
	$VM_{0,0;2,7}$	22.5	9.5	97.8	93.7
	$VM_{2,7;2,15}$	46.7	8.5	99.2	84.9
	$CN_{2,10}$	99.5	7.5	100	62.2
	$CN_{0,0;2,10}$	83.6	9.8	99.8	76.0
N_1=440, N_2=1320	$VM_{0,0}$	5.7	6.0	100	100
	$VM_{2,7}$	44.0	5.1	100	100
	$VM_{2,15}$	59.0	5.7	100	100
	$VM_{0,0;2,7}$	17.7	6.3	100	100
	$VM_{2,7;2,15}$	49.3	6.0	100	100
	$CN_{2,10}$	99.0	5.2	100	99.9
	$CN_{0,0;2,10}$	82.0	6.2	100	100

Table 9. *Rejection Rates of Tests of Fit Associated With Weak Invariance Power Conditions When p=8*

		$T_{0,ML}$	$T_{0,SB}$	$T_{1,ML}$	$T_{1,SB}$
N=110	$VM_{0,0}$	16.4	24.4	92.5	96.3
	$VM_{2,7}$	97.4	35.0	100	87.5
	$VM_{2,15}$	97.6	38.6	100	79.6
	$VM_{0,0;2,7}$	66.8	27.9	98.8	87.5
	$VM_{2,7;2,15}$	97.0	35.0	100	83.9
	$CN_{2,10}$	100	38.3	100	76.8
	$CN_{0,0;2,10}$	100	36.8	100	85.2
N=220	$VM_{0,0}$	9.7	12.2	100	100
	$VM_{2,7}$	97.7	11.4	100	97.7
	$VM_{2,15}$	98.4	15.5	100	93.2
	$VM_{0,0;2,7}$	61.9	14.5	100	99.4
	$VM_{2,7;2,15}$	97.3	12.5	100	95.1
	$CN_{2,10}$	100	15.4	100	88.0
	$CN_{0,0;2,10}$	100	15.4	100	95.1
N=880	$VM_{0,0}$	5.5	5.6	100	100
	$VM_{2,7}$	99.1	6.7	100	100
	$VM_{2,15}$	99.8	8.4	100	100
	$VM_{0,0;2,7}$	60.7	7.4	100	100
	$VM_{2,7;2,15}$	98.8	8.7	100	100
	$CN_{2,10}$	100	8.4	100	100
	$CN_{0,0;2,10}$	100	7.6	100	100
N_1=55,	$VM_{0,0}$	25.1	39.9	94.2	97.2
N_2=165	$VM_{2,7}$	98.6	49.8	100	91.5
	$VM_{2,15}$	97.2	55.5	99.9	86.1
	$VM_{0,0;2,7}$	77.2	35.5	99.7	94.2
	$VM_{2,7;2,15}$	98.2	54.1	99.9	90.3
	$CN_{2,10}$	100	53.0	100	84.4
	$CN_{0,0;2,10}$	100	36.9	100	82.8
N_1=110,	$VM_{0,0}$	11.9	15.6	100	100
N_2=330	$VM_{2,7}$	97.9	19.9	100	98.2
	$VM_{2,15}$	98.3	22.2	100	94.6
	$VM_{0,0;2,7}$	67.2	16.5	100	99.6
	$VM_{2,7;2,15}$	98.4	20.5	100	96.7
	$CN_{2,10}$	100	24.2	100	89.9
	$CN_{0,0;2,10}$	100	16.3	100	93.6
N_1=440,	$VM_{0,0}$	7.0	7.8	100	100
N_2=1320	$VM_{2,7}$	98.7	7.3	100	100
	$VM_{2,15}$	99.7	7.9	100	100
	$VM_{0,0;2,7}$	60.1	7.2	100	100
	$VM_{2,7;2,15}$	99.0	6.5	100	100
	$CN_{2,10}$	100	7.9	100	100
	$CN_{0,0;2,10}$	100	7.8	100	100

Table 10. *Rejection Rates of Tests of Fit Associated With Weak Invariance Power Conditions When p=16*

		$T_{1,ML}$	$T_{1,SB}$	$T_{2,ML}$	$T_{2,SB}$
N=110	$VM_{0,0}$	6.9	9.2	77.0	83.8
	$VM_{2,7}$	66.1	10.5	98.5	76.9
	$VM_{2,15}$	75.8	13.6	98.9	80.2
	$VM_{0,0;2,7}$	33.9	10.2	90.1	79.5
	$VM_{2,7;2,15}$	67.2	11.2	97.1	76.3
	$CN_{2,10}$	99.7	9.5	100	53.5
	$CN_{0,0;2,10}$	89.7	11.9	99.7	70
N=220	$VM_{0,0}$	6.9	7.8	99.2	99.3
	$VM_{2,7}$	63.5	6.9	100	95.8
	$VM_{2,15}$	80.7	9.2	100	94.7
	$VM_{0,0;2,7}$	34.7	7.3	99.7	98.1
	$VM_{2,7;2,15}$	73.6	6.6	100	94.3
	$CN_{2,10}$	99.6	8.1	100	78.3
	$CN_{0,0;2,10}$	88.2	7.2	100	91.3
N=880	$VM_{0,0}$	5.2	5.1	100	100
	$VM_{2,7}$	72.5	5.5	100	100
	$VM_{2,15}$	88.2	6.1	100	100
	$VM_{0,0;2,7}$	36.0	6.6	100	100
	$VM_{2,7;2,15}$	82.4	5.0	100	100
	$CN_{2,10}$	99.7	5.7	100	100
	$CN_{0,0;2,10}$	86.6	7.5	100	100
N_1=55, N_2=165	$VM_{0,0}$	8.7	12.5	63.5	75.5
	$VM_{2,7}$	65.1	14.2	92.2	71.6
	$VM_{2,15}$	72.5	15.7	96.5	74.2
	$VM_{0,0;2,7}$	30.0	11.1	81.0	67.6
	$VM_{2,7;2,15}$	68.4	14.0	94.6	70.6
	$CN_{2,10}$	99.4	11.8	100	55.3
	$CN_{0,0;2,10}$	86.9	10.9	97.7	53.9
N_1=110, N_2=330	$VM_{0,0}$	8.2	10.4	95.1	97.1
	$VM_{2,7}$	67.7	8.7	99.9	91.3
	$VM_{2,15}$	77.6	7.9	99.7	89.2
	$VM_{0,0;2,7}$	35.6	10.3	98.6	93.5
	$VM_{2,7;2,15}$	73.3	8.5	99.7	89.0
	$CN_{2,10}$	99.9	7.6	100	72.8
	$CN_{0,0;2,10}$	85.3	10.7	100	80.8
N_1=440, N_2=1320	$VM_{0,0}$	6.3	6.7	100	100
	$VM_{2,7}$	70.8	5.7	100	100
	$VM_{2,15}$	88.3	5.6	100	100
	$VM_{0,0;2,7}$	29.8	5.4	100	100
	$VM_{2,7;2,15}$	80.5	5.5	100	100
	$CN_{2,10}$	99.7	6.6	100	100
	$CN_{0,0;2,10}$	84.2	8.1	100	100

Table 11. *Rejection Rates of Tests of Fit Associated With Strong Invariance Power Conditions When p=8*

		$T_{1,ML}$	$T_{1,SB}$	$T_{2,ML}$	$T_{2,SB}$
N=110	$VM_{0,0}$	16.3	22.3	86.9	95.7
	$VM_{2,7}$	99.9	28.1	100	94.0
	$VM_{2,15}$	99.8	27.2	100	92.5
	$VM_{0,0;2,7}$	88.6	26.4	99.9	95.0
	$VM_{2,7;2,15}$	100	25.3	100	94.2
	$CN_{2,10}$	100	33.3	100	89.5
	$CN_{0,0;2,10}$	100	35.3	100	91.3
N=220	$VM_{0,0}$	8.2	11.4	99.4	99.8
	$VM_{2,7}$	99.6	12.6	100	99.3
	$VM_{2,15}$	99.8	11.3	100	96.5
	$VM_{0,0;2,7}$	85.5	13.0	100	99.7
	$VM_{2,7;2,15}$	99.7	11.8	100	97.6
	$CN_{2,10}$	100	14.1	100	91.5
	$CN_{0,0;2,10}$	100	15.3	100	97.0
N=880	$VM_{0,0}$	6.1	6.4	100	100
	$VM_{2,7}$	100	8.3	100	100
	$VM_{2,15}$	100	6.1	100	100
	$VM_{0,0;2,7}$	87.7	8.1	100	100
	$VM_{2,7;2,15}$	100	7.2	100	100
	$CN_{2,10}$	100	5.2	100	100
	$CN_{0,0;2,10}$	100	8.8	100	100
N_1=55, N_2=165	$VM_{0,0}$	26.2	41.8	82.6	96.0
	$VM_{2,7}$	99.5	37.9	99.9	93.7
	$VM_{2,15}$	99.9	42.0	100	94.8
	$VM_{0,0;2,7}$	89.4	33.8	99.4	91.7
	$VM_{2,7;2,15}$	99.8	35.7	100	95.1
	$CN_{2,10}$	100	46.7	100	91.4
	$CN_{0,0;2,10}$	100	36.3	100	83.6
N_1=110, N_2=330	$VM_{0,0}$	11.0	15.2	97.7	99.4
	$VM_{2,7}$	100	15.6	100	97.2
	$VM_{2,15}$	100	14.2	100	95.1
	$VM_{0,0;2,7}$	86.0	14.9	100	97.4
	$VM_{2,7;2,15}$	99.7	14.9	100	95.9
	$CN_{2,10}$	100	17.8	100	89.7
	$CN_{0,0;2,10}$	100	15.3	100	89.8
N_1=440, N_2=1320	$VM_{0,0}$	7.0	7.5	100	100
	$VM_{2,7}$	100	5.8	100	100
	$VM_{2,15}$	100	7.6	100	100
	$VM_{0,0;2,7}$	84.6	5.8	100	100
	$VM_{2,7;2,15}$	100	6.3	100	100
	$CN_{2,10}$	100	7.3	100	100
	$CN_{0,0;2,10}$	100	10.3	100	100

Table 12. *Rejection Rates of Tests of Fit Associated With Strong Invariance Power Conditions When p=16*

		$T_{2,ML}$	$T_{2,SB}$	$T_{3,ML}$	$T_{3,SB}$
N=110	$VM_{0,0}$	5.8	9.1	83.0	87.8
	$VM_{2,7}$	63.4	10.3	98.4	59.3
	$VM_{2,15}$	72.2	13.2	99.2	57.9
	$VM_{0,0;2,7}$	31.0	10.0	94.9	69.5
	$VM_{2,7;2,15}$	66.7	12.5	99.3	57.7
	$CN_{2,10}$	100	12.7	100	42.4
	$CN_{0,0;2,10}$	85.8	12.2	99.8	51.8
N=220	$VM_{0,0}$	7.2	8.3	99.0	99.2
	$VM_{2,7}$	63.0	9.8	100	82.4
	$VM_{2,15}$	79.8	7.9	100	70.1
	$VM_{0,0;2,7}$	31.2	7.5	100	91.1
	$VM_{2,7;2,15}$	69.3	8.5	99.9	74.1
	$CN_{2,10}$	99.5	8.9	100	67.3
	$CN_{0,0;2,10}$	86.8	10.2	99.9	84.9
N=880	$VM_{0,0}$	5.3	5.3	100	100
	$VM_{2,7}$	70.3	5.0	100	100
	$VM_{2,15}$	83.6	5.8	100	99.3
	$VM_{0,0;2,7}$	34.1	6.4	100	100
	$VM_{2,7;2,15}$	75.8	6.6	100	99.8
	$CN_{2,10}$	99.4	6.9	100	100
	$CN_{0,0;2,10}$	84.3	7.7	100	100
N_1=55, N_2=165	$VM_{0,0}$	6.7	10.9	61.8	76.4
	$VM_{2,7}$	61.8	15.3	97.7	60.0
	$VM_{2,15}$	70.8	17.6	98.9	53.7
	$VM_{0,0;2,7}$	31.9	13.2	87.8	60.6
	$VM_{2,7;2,15}$	68.0	14.9	98.3	54.1
	$CN_{2,10}$	99.9	17.1	100	40.3
	$CN_{0,0;2,10}$	85.5	13.1	98.1	46.5
N_1=110, N_2=330	$VM_{0,0}$	7.1	9.2	95.7	97.2
	$VM_{2,7}$	64.9	10.8	99.6	72.5
	$VM_{2,15}$	77.1	9.5	100	62.2
	$VM_{0,0;2,7}$	27.1	6.9	98.9	86.9
	$VM_{2,7;2,15}$	70.2	10.4	99.4	66.8
	$CN_{2,10}$	99.7	10.5	100	55.4
	$CN_{0,0;2,10}$	83.5	7.7	99.9	74.0
N_1=440, N_2=1320	$VM_{0,0}$	4.5	5.0	100	100
	$VM_{2,7}$	67.3	4.9	100	99.8
	$VM_{2,15}$	85.2	6.1	100	97.4
	$VM_{0,0;2,7}$	29.2	5.4	100	100
	$VM_{2,7;2,15}$	76.8	6.4	100	99.6
	$CN_{2,10}$	99.3	5.9	100	99.8
	$CN_{0,0;2,10}$	81.4	6.5	100	100

Table 13. *Rejection Rates of Tests of Fit Associated With Strict Invariance Power Conditions When p=8*

		$T_{2,ML}$	$T_{2,SB}$	$T_{3,ML}$	$T_{3,SB}$
N=110	$VM_{0,0}$	14.3	25.7	96.2	98.9
	$VM_{2,7}$	99.7	31.8	100	88.6
	$VM_{2,15}$	99.1	31.5	100	84.4
	$VM_{0,0;2,7}$	87.5	28.2	100	94.8
	$VM_{2,7;2,15}$	99.5	30.7	100	86.4
	$CN_{2,10}$	100	38.4	100	81.4
	$CN_{0,0;2,10}$	100	35.0	100	84.3
N=220	$VM_{0,0}$	7.9	11.0	100	100
	$VM_{2,7}$	99.9	14.9	100	97.6
	$VM_{2,15}$	99.9	9.9	100	89.9
	$VM_{0,0;2,7}$	85.6	15.3	100	99.4
	$VM_{2,7;2,15}$	99.8	11.6	100	95.1
	$CN_{2,10}$	100	18.3	100	92.0
	$CN_{0,0;2,10}$	100	19.1	100	97.9
N=880	$VM_{0,0}$	5.8	6.3	100	100
	$VM_{2,7}$	99.9	7.1	100	100
	$VM_{2,15}$	100	7.2	100	100
	$VM_{0,0;2,7}$	83.2	7.5	100	100
	$VM_{2,7;2,15}$	100	4.2	100	100
	$CN_{2,10}$	100	7.7	100	100
	$CN_{0,0;2,10}$	100	6.7	100	100
N_1=55, N_2=165	$VM_{0,0}$	27.5	46.7	90.2	97.7
	$VM_{2,7}$	99.3	44.6	100	84.0
	$VM_{2,15}$	99.7	43.4	100	73.3
	$VM_{0,0;2,7}$	90.3	45.3	100	91.2
	$VM_{2,7;2,15}$	99.3	45.6	100	78.2
	$CN_{2,10}$	100	53.3	100	78.2
	$CN_{0,0;2,10}$	100	39.8	100	82.9
N_1=110, N_2=330	$VM_{0,0}$	11.0	18.6	99.7	99.9
	$VM_{2,7}$	99.7	16.9	100	91.0
	$VM_{2,15}$	100	15.6	100	78.1
	$VM_{0,0;2,7}$	86.1	17.2	100	98.4
	$VM_{2,7;2,15}$	99.8	18.0	100	88.5
	$CN_{2,10}$	100	22.0	100	83.4
	$CN_{0,0;2,10}$	100	17.4	100	92.9
N_1=440, N_2=1320	$VM_{0,0}$	5.7	6.5	100	100
	$VM_{2,7}$	99.9	7.6	100	100
	$VM_{2,15}$	100	6.2	100	99.8
	$VM_{0,0;2,7}$	82.8	6.2	100	100
	$VM_{2,7;2,15}$	100	9.1	100	100
	$CN_{2,10}$	100	7.5	100	100
	$CN_{0,0;2,10}$	99.9	7.7	100	100

Table 14. *Rejection Rates of Tests of Fit Associated With Strict Invariance Power Conditions When p=16*

		Type I Error			Power		
		D	D_{SB1}	D_{SB10}	D	D_{SB1}	D_{SB10}
N=110	$VM_{0,0}$	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	0	0
	$CN_{2,10}$	2	4	2	13	16	15
	$CN_{0,0;2,10}$	0	0	0	11	15	11
N=220	$VM_{0,0}$	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	0	0
	$CN_{2,10}$	0	0	0	1	1	1
	$CN_{0,0;2,10}$	0	0	0	1	1	1
N=880	$VM_{0,0}$	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	0	0
	$CN_{2,10}$	0	0	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0	0	0
N_1=55, N_2=165	$VM_{0,0}$	0	0	0	1	1	1
	$VM_{2,7}$	0	1	0	0	0	0
	$VM_{2,15}$	0	0	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	1	1	1
	$VM_{2,7;2,15}$	0	1	0	0	0	0
	$CN_{2,10}$	22	34	24	12	20	12
	$CN_{0,0;2,10}$	0	0	0	2	2	2
N_1=110, N_2=330	$VM_{0,0}$	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	0	0
	$CN_{2,10}$	1	1	2	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0	0	0
N_1=440, N_2=1320	$VM_{0,0}$	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	0	0
	$CN_{2,10}$	0	0	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0	0	0

Table 15. *Number of Computational Failures When Testing Weak Invariance When p=8*

		Type I Error			Power		
		D	D_{SB1}	D_{SB10}	D	D_{SB1}	D_{SB10}
N=110	$VM_{0,0}$	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	0	0
	$CN_{2,10}$	0	0	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0	0	0
N=220	$VM_{0,0}$	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	0	0
	$CN_{2,10}$	0	0	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0	0	0
N=880	$VM_{0,0}$	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	0	0
	$CN_{2,10}$	0	0	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0	0	0
N_1=55, N_2=165	$VM_{0,0}$	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	0	0
	$CN_{2,10}$	1	1	1	1	5	2
	$CN_{0,0;2,10}$	0	0	0	0	0	0
N_1=110, N_2=330	$VM_{0,0}$	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	0	0
	$CN_{2,10}$	0	0	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0	0	0
N_1=440, N_2=1320	$VM_{0,0}$	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	0	0
	$CN_{2,10}$	0	0	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0	0	0

Table 16. *Number of Computational Failures When Testing Weak Invariance When p=16*

		Type I Error			Power		
		D	D_{SB1}	D_{SB10}	D	D_{SB1}	D_{SB10}
N=110	$VM_{0,0}$	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	4	0
	$VM_{2,15}$	0	0	0	0	14	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	7	0
	$CN_{2,10}$	1	1	1	0	144	0
	$CN_{0,0;2,10}$	0	0	0	1	7	1
N=220	$VM_{0,0}$	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	6	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	3	0
	$CN_{2,10}$	0	0	0	0	45	0
	$CN_{0,0;2,10}$	0	0	0	0	0	0
N=880	$VM_{0,0}$	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	2	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	0	0
	$CN_{2,10}$	0	0	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0	0	0
N_1=55, N_2=165	$VM_{0,0}$	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	55	0
	$VM_{2,15}$	0	0	0	0	77	0
	$VM_{0,0;2,7}$	0	0	0	0	2	0
	$VM_{2,7;2,15}$	0	0	0	0	59	0
	$CN_{2,10}$	3	5	3	5	374	5
	$CN_{0,0;2,10}$	0	0	0	0	4	0
N_1=110, N_2=330	$VM_{0,0}$	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	18	0
	$VM_{2,15}$	0	0	0	0	62	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	15	0
	$CN_{2,10}$	0	0	0	0	273	0
	$CN_{0,0;2,10}$	0	0	0	0	0	0
N_1=440, N_2=1320	$VM_{0,0}$	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	35	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	3	0
	$CN_{2,10}$	0	0	0	0	122	0
	$CN_{0,0;2,10}$	0	0	0	0	0	0

Table 17. *Number of Computational Failures When Testing Strong Invariance When p=8*

		Type I Error			Power		
		D	D_{SB1}	D_{SB10}	D	D_{SB1}	D_{SB10}
N=110	$VM_{0,0}$	0	0	0	0	8	0
	$VM_{2,7}$	0	0	0	0	400	0
	$VM_{2,15}$	0	0	0	0	530	0
	$VM_{0,0;2,7}$	0	0	0	0	136	0
	$VM_{2,7;2,15}$	0	0	0	0	443	0
	$CN_{2,10}$	0	0	0	0	963	0
	$CN_{0,0;2,10}$	0	0	0	0	592	0
N=220	$VM_{0,0}$	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	184	0
	$VM_{2,15}$	0	0	0	0	487	0
	$VM_{0,0;2,7}$	0	0	0	0	38	0
	$VM_{2,7;2,15}$	0	0	0	0	350	0
	$CN_{2,10}$	0	0	0	0	966	0
	$CN_{0,0;2,10}$	0	0	0	0	497	0
N=880	$VM_{0,0}$	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	38	0
	$VM_{2,15}$	0	0	0	0	429	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	170	0
	$CN_{2,10}$	0	0	0	0	999	0
	$CN_{0,0;2,10}$	0	0	0	0	265	0
N_1=55, N_2=165	$VM_{0,0}$	0	0	0	0	140	0
	$VM_{2,7}$	0	0	0	0	712	0
	$VM_{2,15}$	0	0	0	0	786	0
	$VM_{0,0;2,7}$	0	0	0	0	242	0
	$VM_{2,7;2,15}$	0	1	0	0	730	0
	$CN_{2,10}$	0	16	0	0	983	0
	$CN_{0,0;2,10}$	0	0	0	0	408	0
N_1=110, N_2=330	$VM_{0,0}$	0	0	0	0	23	0
	$VM_{2,7}$	0	0	0	0	645	0
	$VM_{2,15}$	0	0	0	0	793	0
	$VM_{0,0;2,7}$	0	0	0	0	89	0
	$VM_{2,7;2,15}$	0	0	0	0	670	0
	$CN_{2,10}$	0	1	0	0	995	0
	$CN_{0,0;2,10}$	0	0	0	0	185	0
N_1=440, N_2=1320	$VM_{0,0}$	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	612	0
	$VM_{2,15}$	0	0	0	0	907	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	709	0
	$CN_{2,10}$	0	0	0	0	1000	0
	$CN_{0,0;2,10}$	0	0	0	0	4	0

Table 18. *Number of Computational Failures When Testing Strong Invariance When p=16*

		Type I Error			Power		
		D	D_{SB1}	D_{SB10}	D	D_{SB1}	D_{SB10}
N=110	$VM_{0,0}$	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	0	0
	$CN_{2,10}$	2	2	2	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0	0	0
N=220	$VM_{0,0}$	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	0	0
	$CN_{2,10}$	0	0	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0	0	0
N=880	$VM_{0,0}$	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	0	0
	$CN_{2,10}$	0	0	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0	0	0
N_1=55, N_2=165	$VM_{0,0}$	0	0	0	0	1	0
	$VM_{2,7}$	0	0	0	0	2	0
	$VM_{2,15}$	0	0	0	0	1	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	0	0
	$CN_{2,10}$	4	6	4	5	6	5
	$CN_{0,0;2,10}$	0	0	0	0	0	0
N_1=110, N_2=330	$VM_{0,0}$	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	0	0
	$CN_{2,10}$	1	1	1	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0	0	0
N_1=440, N_2=1320	$VM_{0,0}$	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	0	0
	$CN_{2,10}$	0	0	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0	0	0

Table 19. *Number of Computational Failures When Testing Strict Invariance When p=8*

		Type I Error			Power		
		D	D_{SB1}	D_{SB10}	D	D_{SB1}	D_{SB10}
N=110	$VM_{0,0}$	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	0	0
	$CN_{2,10}$	0	0	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0	0	0
N=220	$VM_{0,0}$	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	0	0
	$CN_{2,10}$	0	0	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0	0	0
N=880	$VM_{0,0}$	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	0	0
	$CN_{2,10}$	0	0	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0	0	0
N_1=55, N_2=165	$VM_{0,0}$	0	5	0	0	17	0
	$VM_{2,7}$	0	12	0	0	17	0
	$VM_{2,15}$	0	0	0	0	5	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	1	0	0	1	0
	$CN_{2,10}$	0	0	0	0	12	0
	$CN_{0,0;2,10}$	0	0	0	0	0	0
N_1=110, N_2=330	$VM_{0,0}$	0	1	0	0	1	0
	$VM_{2,7}$	0	0	0	0	4	0
	$VM_{2,15}$	0	1	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	0	0
	$CN_{2,10}$	0	0	0	0	1	0
	$CN_{0,0;2,10}$	0	0	0	0	0	0
N_1=440, N_2=1320	$VM_{0,0}$	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	0	0
	$CN_{2,10}$	0	0	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0	0	0

Table 20. *Number of Computational Failures When Testing Strict Invariance When p=16*

		$T_{0,ML}$	$T_{0,SB}$	$T_{1,ML}$	$T_{1,SB}$	$T_{2,ML}$	$T_{2,SB}$	$T_{3,ML}$	$T_{3,SB}$
N=110	$VM_{0,0}$	0	0	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	0	0	0	0
	$CN_{2,10}$	1	4	1	1	2	2	2	2
	$CN_{0,0;2,10}$	0	0	0	0	0	0	0	0
N=220	$VM_{0,0}$	0	0	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	0	0	0	0
	$CN_{2,10}$	0	0	0	0	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0	0	0	0	0
N=880	$VM_{0,0}$	0	0	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	0	0	0	0
	$CN_{2,10}$	0	0	0	0	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0	0	0	0	0
N_1=55, N_2=165	$VM_{0,0}$	0	0	0	0	0	0	0	0
	$VM_{2,7}$	0	1	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	1	0	0	0	0	0	0
	$CN_{2,10}$	19	31	3	3	3	3	3	3
	$CN_{0,0;2,10}$	0	0	0	0	0	0	0	0
N_1=110, N_2=330	$VM_{0,0}$	0	0	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	0	0	0	0
	$CN_{2,10}$	1	1	0	0	0	0	1	1
	$CN_{0,0;2,10}$	0	0	0	0	0	0	0	0
N_1=440, N_2=1320	$VM_{0,0}$	0	0	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	0	0	0	0
	$CN_{2,10}$	0	0	0	0	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0	0	0	0	0

Table 21. *Number of Computational Errors for Type I Error Condition Tests of Fit When p=8*

		$T_{0,ML}$	$T_{0,SB}$	$T_{1,ML}$	$T_{1,SB}$	$T_{2,ML}$	$T_{2,SB}$	$T_{3,ML}$	$T_{3,SB}$
N=110	$VM_{0,0}$	0	0	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	0	0	0	0
	$CN_{2,10}$	0	0	0	0	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0	0	0	0	0
N=220	$VM_{0,0}$	0	0	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	0	0	0	0
	$CN_{2,10}$	0	0	0	0	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0	0	0	0	0
N=880	$VM_{0,0}$	0	0	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	0	0	0	0
	$CN_{2,10}$	0	0	0	0	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0	0	0	0	0
N_1=55, N_2=165	$VM_{0,0}$	0	0	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	0	0	0	0
	$CN_{2,10}$	1	1	0	0	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0	0	0	0	0
N_1=110, N_2=330	$VM_{0,0}$	0	0	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	0	0	0	0
	$CN_{2,10}$	0	0	0	0	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0	0	0	0	0
N_1=440, N_2=1320	$VM_{0,0}$	0	0	0	0	0	0	0	0
	$VM_{2,7}$	0	0	0	0	0	0	0	0
	$VM_{2,15}$	0	0	0	0	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0	0	0	0	0
	$CN_{2,10}$	0	0	0	0	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0	0	0	0	0

Table 22. *Number of Computational Errors for Type I Error Condition Tests of Fit When p=16*

		$T_{0,ML}$	$T_{0,SB}$	$T_{1,ML}$	$T_{1,SB}$
N=110	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	12	15	1	1
	$CN_{0,0;2,10}$	11	15	0	0
N=220	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	1	1	0	0
	$CN_{0,0;2,10}$	1	1	0	0
N=880	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0
N_1=55, N_2=165	$VM_{0,0}$	0	1	1	1
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	1	1	1
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	11	19	1	1
	$CN_{0,0;2,10}$	2	2	0	0
N_1=110, N_2=330	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0
N_1=440, N_2=1320	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0

Table 23. *Number of Computational Errors for Tests of Fit Associated With Weak Invariance Power Conditions When p=8*

		$T_{0,ML}$	$T_{0,SB}$	$T_{1,ML}$	$T_{1,SB}$
N=110	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0
N=220	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0
N=880	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0
N_1=55, N_2=165	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	1	4	0	0
	$CN_{0,0;2,10}$	0	0	0	0
N_1=110, N_2=330	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0
N_1=440, N_2=1320	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0

Table 24. *Number of Computational Errors for Tests of Fit Associated With Weak Invariance Power Conditions When p=16*

		$T_{1,ML}$	$T_{1,SB}$	$T_{2,ML}$	$T_{2,SB}$
N=110	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	0	0	0	0
	$CN_{0,0;2,10}$	1	1	0	0
N=220	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0
N=880	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0
N_1=55, N_2=165	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	4	4	1	1
	$CN_{0,0;2,10}$	0	0	0	0
N_1=110, N_2=330	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0
N_1=440, N_2=1320	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0

Table 25. *Number of Computational Errors for Tests of Fit Associated With Strong Invariance Power Conditions When p=8*

		$T_{1,ML}$	$T_{1,SB}$	$T_{2,ML}$	$T_{2,SB}$
N=110	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0
N=220	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0
N=880	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0
N_1=55, N_2=165	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0
N_1=110, N_2=330	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0
N_1=440, N_2=1320	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0

Table 26. *Number of Computational Errors for Tests of Fit Associated With Strong Invariance Power Conditions When p=16*

		$T_{2,ML}$	$T_{2,SB}$	$T_{3,ML}$	$T_{3,SB}$
N=110	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0
N=220	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0
N=880	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0
N_1=55, N_2=165	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	4	4	4	4
	$CN_{0,0;2,10}$	0	0	0	0
N_1=110, N_2=330	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0
N_1=440, N_2=1320	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0

Table 27. *Number of Computational Errors for Tests of Fit Associated With Strict Invariance Power Conditions When p=8*

		$T_{2,ML}$	$T_{2,SB}$	$T_{3,ML}$	$T_{3,SB}$
N=110	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0
N=220	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0
N=880	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0
N_1=55, N_2=165	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0
N_1=110, N_2=330	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0
N_1=440, N_2=1320	$VM_{0,0}$	0	0	0	0
	$VM_{2,7}$	0	0	0	0
	$VM_{2,15}$	0	0	0	0
	$VM_{0,0;2,7}$	0	0	0	0
	$VM_{2,7;2,15}$	0	0	0	0
	$CN_{2,10}$	0	0	0	0
	$CN_{0,0;2,10}$	0	0	0	0

Table 28. *Number of Computational Errors for Tests of Fit Associated With Strict Invariance Power Conditions When p=16*

		Type I Error			Power		
		D_{SB1}	D_{SB1}^{*}	D_{SBH}	D_{SB1}	D_{SB1}^{*}	D_{SBH}
N=110	$VM_{0,0}$	6.3	6.3	6.3	97.1	97.1	97.1
	$VM_{2,7}$	4.3	4.3	4.3	71.7	71.7	71.7
	$VM_{2,15}$	3.5	3.5	3.5	58.2	58.2	58.2
	$VM_{0,0;2,7}$	4.9	4.9	4.9	84.7	84.7	84.7
	$VM_{2,7;2,15}$	4.9	4.9	4.9	67.1	67.1	67.1
	$CN_{2,10}$	3.8	3.8	4.2	58.2	58.2	58.9
	$CN_{0,0;2,10}$	4.6	4.6	4.6	72.0	71.8	72.5
N=220	$VM_{0,0}$	5.8	5.8	5.8	100	100	100
	$VM_{2,7}$	4.4	4.4	4.4	97.3	97.3	97.3
	$VM_{2,15}$	3.8	3.8	3.8	90.7	90.7	90.7
	$VM_{0,0;2,7}$	3.9	3.9	3.9	98.7	98.7	98.7
	$VM_{2,7;2,15}$	4.7	4.7	4.7	93.7	93.7	93.7
	$CN_{2,10}$	3.9	3.9	3.9	91.9	91.9	91.9
	$CN_{0,0;2,10}$	6.3	6.3	6.3	96.2	96.2	96.2
N=880	$VM_{0,0}$	4.9	4.9	4.9	100	100	100
	$VM_{2,7}$	4.0	4.0	4.0	100	100	100
	$VM_{2,15}$	4.1	4.1	4.1	100	100	100
	$VM_{0,0;2,7}$	5.1	5.1	5.1	100	100	100
	$VM_{2,7;2,15}$	4.0	4.0	4.0	100	100	100
	$CN_{2,10}$	3.5	3.5	3.5	100	100	100
	$CN_{0,0;2,10}$	4.6	4.6	4.6	100	100	100
N_1=55, N_2=165	$VM_{0,0}$	8.2	8.2	8.2	96.4	96.4	96.4
	$VM_{2,7}$	4.9	4.9	5.0	70.0	70.0	70.0
	$VM_{2,15}$	4.5	4.5	4.5	56.5	56.5	56.5
	$VM_{0,0;2,7}$	5.6	5.6	5.6	87.1	87.1	87.1
	$VM_{2,7;2,15}$	3.5	3.5	3.6	68.3	68.3	68.3
	$CN_{2,10}$	3.3	3.4	6.6	54.8	54.6	55.7
	$CN_{0,0;2,10}$	6.2	6.2	6.2	79.9	79.9	79.9
N_1=110, N_2=330	$VM_{0,0}$	6.1	6.1	6.1	99.9	99.9	99.9
	$VM_{2,7}$	3.4	3.4	3.4	96.3	96.3	96.3
	$VM_{2,15}$	3.5	3.5	3.5	86.2	86.2	86.2
	$VM_{0,0;2,7}$	5.1	5.1	5.1	99.7	99.7	99.7
	$VM_{2,7;2,15}$	4.2	4.2	4.2	92.5	92.5	92.5
	$CN_{2,10}$	3.8	3.8	3.9	89.8	89.8	89.8
	$CN_{0,0;2,10}$	5.7	5.7	5.7	98.7	98.7	98.7
N_1=440, N_2=1320	$VM_{0,0}$	5.4	5.4	5.4	100	100	100
	$VM_{2,7}$	5.1	5.1	5.1	100	100	100
	$VM_{2,15}$	2.4	2.4	2.4	100	100	100
	$VM_{0,0;2,7}$	5.0	5.0	5.0	100	100	100
	$VM_{2,7;2,15}$	3.6	3.6	3.6	100	100	100
	$CN_{2,10}$	3.8	3.8	3.8	100	100	100
	$CN_{0,0;2,10}$	6.7	6.7	6.7	100	100	100

Table 29. *Comparison of D_{SB1}, D_{SB1}^{*}, and D_{SBH} When Testing Weak Invariance When p=8.* Note: Rejection rates for D_{SB1} exclude negative chi-square differences. Rejection rates for D_{SB1}* are the rejection rates for D_{SB1} when negative chi-square differences are interpreted as rejections.

		Type I Error			Power		
		D_{SB1}	D_{SB1}^{*}	D_{SBH}	D_{SB1}	D_{SB1}^{*}	D_{SBH}
N=110	$VM_{0,0}$	7.5	7.5	7.5	100	100	100
	$VM_{2,7}$	2.3	2.3	2.3	90.1	90.1	90.1
	$VM_{2,15}$	0.8	0.8	0.8	65.6	65.6	65.6
	$VM_{0,0;2,7}$	2.9	2.9	2.9	96.7	96.7	96.7
	$VM_{2,7;2,15}$	1.6	1.6	1.6	80.6	80.6	80.6
	$CN_{2,10}$	1.1	1.1	1.1	87.0	87.0	87.0
	$CN_{0,0;2,10}$	2.5	2.5	2.5	94.8	94.8	94.8
N=220	$VM_{0,0}$	5.7	5.7	5.7	100	100	100
	$VM_{2,7}$	1.4	1.4	1.4	99.9	99.9	99.9
	$VM_{2,15}$	0.7	0.7	0.7	96.6	96.6	96.6
	$VM_{0,0;2,7}$	2.9	2.9	2.9	100	100	100
	$VM_{2,7;2,15}$	1.1	1.1	1.1	98.6	98.6	98.6
	$CN_{2,10}$	2.3	2.3	2.3	100	100	100
	$CN_{0,0;2,10}$	2.0	2.0	2.0	100	100	100
N=880	$VM_{0,0}$	6.4	6.4	6.4	100	100	100
	$VM_{2,7}$	3.0	3.0	3.0	100	100	100
	$VM_{2,15}$	2.2	2.2	2.2	100	100	100
	$VM_{0,0;2,7}$	3.7	3.7	3.7	100	100	100
	$VM_{2,7;2,15}$	3.0	3.0	3.0	100	100	100
	$CN_{2,10}$	4.2	4.2	4.2	100	100	100
	$CN_{0,0;2,10}$	4.9	4.9	4.9	100	100	100
N_1=55, N_2=165	$VM_{0,0}$	7.9	7.9	7.9	99.9	99.9	99.9
	$VM_{2,7}$	1.8	1.8	1.8	85.9	85.9	85.9
	$VM_{2,15}$	1.2	1.2	1.2	61.4	61.4	61.4
	$VM_{0,0;2,7}$	6.7	6.7	6.7	99.6	99.6	99.6
	$VM_{2,7;2,15}$	1.9	1.9	1.9	78.0	78.0	78.0
	$CN_{2,10}$	0.9	0.9	1.0	76.6	76.5	76.7
	$CN_{0,0;2,10}$	6.2	6.2	6.2	98.9	98.9	98.9
N_1=110, N_2=330	$VM_{0,0}$	6.0	6.0	6.0	100	100	100
	$VM_{2,7}$	1.5	1.5	1.5	99.4	99.4	99.4
	$VM_{2,15}$	0.8	0.8	0.8	92.9	92.9	92.9
	$VM_{0,0;2,7}$	4.8	4.8	4.8	100	100	100
	$VM_{2,7;2,15}$	1.5	1.5	1.5	99.0	99.0	99.0
	$CN_{2,10}$	1.9	1.9	1.9	99.6	99.6	99.6
	$CN_{0,0;2,10}$	4.9	4.9	4.9	100	100	100
N_1=440, N_2=1320	$VM_{0,0}$	5.1	5.1	5.1	100	100	100
	$VM_{2,7}$	3.0	3.0	3.0	100	100	100
	$VM_{2,15}$	1.3	1.3	1.3	99.9	99.9	99.9
	$VM_{0,0;2,7}$	4.9	4.9	4.9	100	100	100
	$VM_{2,7;2,15}$	2.6	2.6	2.6	100	100	100
	$CN_{2,10}$	4.3	4.3	4.3	100	100	100
	$CN_{0,0;2,10}$	4.2	4.2	4.2	100	100	100

Table 30. *Comparison of D_{SB1}, D_{SB1}^{*}, and D_{SBH} When Testing Weak Invariance When p=16.* Note: Rejection rates for D_{SB1} exclude negative chi-square differences. Rejection rates for D_{SB1}* are the rejection rates for D_{SB1} when negative chi-square differences are interpreted as rejections.

		Type I Error			Power		
		D_{SB1}	D_{SB1}^{*}	D_{SBH}	D_{SB1}	D_{SB1}^{*}	D_{SBH}
N=110	$VM_{0,0}$	7.5	7.5	7.5	99.5	99.5	99.5
	$VM_{2,7}$	10.7	10.7	10.7	99.4	99.4	99.4
	$VM_{2,15}$	10.0	10.0	10.0	99.4	99.4	99.4
	$VM_{0,0;2,7}$	10.4	10.4	10.4	99.2	99.2	99.2
	$VM_{2,7;2,15}$	9.3	9.3	9.3	99.2	99.2	99.2
	$CN_{2,10}$	14.4	14.4	14.5	99.3	99.4	99.4
	$CN_{0,0;2,10}$	10.1	10.1	10.1	99.5	99.5	99.5
N=220	$VM_{0,0}$	5.1	5.1	5.1	100	100	100
	$VM_{2,7}$	7.8	7.8	7.8	100	100	100
	$VM_{2,15}$	7.0	7.0	7.0	100	100	100
	$VM_{0,0;2,7}$	6.6	6.6	6.6	100	100	100
	$VM_{2,7;2,15}$	8.6	8.6	8.6	100	100	100
	$CN_{2,10}$	8.0	8.0	8.0	100	100	100
	$CN_{0,0;2,10}$	7.6	7.6	7.6	100	100	100
N=880	$VM_{0,0}$	4.8	4.8	4.8	100	100	100
	$VM_{2,7}$	5.7	5.7	5.7	100	100	100
	$VM_{2,15}$	5.6	5.6	5.6	100	100	100
	$VM_{0,0;2,7}$	4.1	4.1	4.1	100	100	100
	$VM_{2,7;2,15}$	5.9	5.9	5.9	100	100	100
	$CN_{2,10}$	6.1	6.1	6.1	100	100	100
	$CN_{0,0;2,10}$	5.4	5.4	5.4	100	100	100
N_1=55, N_2=165	$VM_{0,0}$	10.2	10.2	10.2	97.4	97.4	97.4
	$VM_{2,7}$	13.1	13.1	13.1	97.9	98.0	98.0
	$VM_{2,15}$	15.2	15.2	15.2	98.0	98.2	98.2
	$VM_{0,0;2,7}$	11.3	11.3	11.3	97.5	97.5	97.5
	$VM_{2,7;2,15}$	14.4	14.4	14.4	98.1	98.2	98.2
	$CN_{2,10}$	18.9	19.0	19.3	98.2	98.5	98.9
	$CN_{0,0;2,10}$	13.0	13.0	13.0	97.4	97.4	97.4
N_1=110, N_2=330	$VM_{0,0}$	8.2	8.2	8.2	100	100	100
	$VM_{2,7}$	7.8	7.8	7.8	100	100	100
	$VM_{2,15}$	9.4	9.4	9.4	100	100	100
	$VM_{0,0;2,7}$	9.0	9.0	9.0	100	100	100
	$VM_{2,7;2,15}$	8.6	8.6	8.6	100	100	100
	$CN_{2,10}$	11.5	11.5	11.6	100	100	100
	$CN_{0,0;2,10}$	9.0	9.0	9.0	100	100	100
N_1=440, N_2=1320	$VM_{0,0}$	5.8	5.8	5.8	100	100	100
	$VM_{2,7}$	6.2	6.2	6.2	100	100	100
	$VM_{2,15}$	6.2	6.2	6.2	100	100	100
	$VM_{0,0;2,7}$	5.0	5.0	5.0	100	100	100
	$VM_{2,7;2,15}$	6.2	6.2	6.2	100	100	100
	$CN_{2,10}$	7.1	7.1	7.1	100	100	100
	$CN_{0,0;2,10}$	5.6	5.6	5.6	100	100	100

Table 31. *Comparison of D_{SB1}, D_{SB1}^{*}, and D_{SBH} When Testing Strong Invariance When p=8.* Note: Rejection rates for D_{SB1} exclude negative chi-square differences. Rejection rates for D_{SB1}* are the rejection rates for D_{SB1} when negative chi-square differences are interpreted as rejections.

		Type I Error			Power		
		D_{SB1}	D_{SB1}^{*}	D_{SBH}	D_{SB1}	D_{SB1}^{*}	D_{SBH}
N=110	$VM_{0,0}$	16.7	16.7	16.7	99.9	99.9	99.9
	$VM_{2,7}$	20.7	20.7	20.7	100	100	100
	$VM_{2,15}$	26.6	26.6	26.6	100	100	100
	$VM_{0,0;2,7}$	18.8	18.8	18.8	100	100	100
	$VM_{2,7;2,15}$	21.2	21.2	21.2	100	100	100
	$CN_{2,10}$	34.8	34.8	34.8	100	100	100
	$CN_{0,0;2,10}$	24.3	24.3	24.3	100	100	100
N=220	$VM_{0,0}$	10.5	10.5	10.5	100	100	100
	$VM_{2,7}$	12.5	12.5	12.5	100	100	100
	$VM_{2,15}$	15.7	15.7	15.7	100	100	100
	$VM_{0,0;2,7}$	12.8	12.8	12.8	100	100	100
	$VM_{2,7;2,15}$	12.8	12.8	12.8	100	100	100
	$CN_{2,10}$	19.1	19.1	19.1	100	100	100
	$CN_{0,0;2,10}$	14.5	14.5	14.5	100	100	100
N=880	$VM_{0,0}$	6.3	6.3	6.3	100	100	100
	$VM_{2,7}$	6.0	6.0	6.0	100	100	100
	$VM_{2,15}$	5.7	5.7	5.7	100	100	100
	$VM_{0,0;2,7}$	6.0	6.0	6.0	100	100	100
	$VM_{2,7;2,15}$	7.3	7.3	7.3	100	100	100
	$CN_{2,10}$	8.5	8.5	8.5	100	100	100
	$CN_{0,0;2,10}$	6.5	6.5	6.5	100	100	100
N_1=55, N_2=165	$VM_{0,0}$	23.6	23.6	23.6	100	100	100
	$VM_{2,7}$	39.4	39.4	39.4	100	100	100
	$VM_{2,15}$	38.2	38.2	38.2	100	100	100
	$VM_{0,0;2,7}$	25.8	25.8	25.8	100	100	100
	$VM_{2,7;2,15}$	36.7	36.7	36.7	100	100	100
	$CN_{2,10}$	56.1	56.8	56.8	100	100	100
	$CN_{0,0;2,10}$	30.2	30.2	30.2	100	100	100
N_1=110, N_2=330	$VM_{0,0}$	12.1	12.1	12.1	100	100	100
	$VM_{2,7}$	20.4	20.4	20.4	100	100	100
	$VM_{2,15}$	23.5	23.5	23.5	100	100	100
	$VM_{0,0;2,7}$	13.3	13.3	13.3	100	100	100
	$VM_{2,7;2,15}$	20.1	20.1	20.1	100	100	100
	$CN_{2,10}$	29.6	29.6	29.6	100	100	100
	$CN_{0,0;2,10}$	15.8	15.8	15.8	100	100	100
N_1=440, N_2=1320	$VM_{0,0}$	7.8	7.8	7.8	100	100	100
	$VM_{2,7}$	8.5	8.5	8.5	100	100	100
	$VM_{2,15}$	8.4	8.4	8.4	100	100	100
	$VM_{0,0;2,7}$	7.6	7.6	7.6	100	100	100
	$VM_{2,7;2,15}$	9.3	9.3	9.3	100	100	100
	$CN_{2,10}$	9.6	9.6	9.6	NA	100	100
	$CN_{0,0;2,10}$	7.3	7.3	7.3	100	100	100

Table 32. *Comparison of D_{SB1}, D_{SB1}^{*}, and D_{SBH} When Testing Strong Invariance When p=16.* Note: Rejection rates for D_{SB1} exclude negative chi-square differences. Rejection rates for D_{SB1}* are the rejection rates for D_{SB1} when negative chi-square differences are interpreted as rejections.

		Type I Error			Power		
		D_{SB1}	D_{SB1}^{*}	D_{SBH}	D_{SB1}	D_{SB1}^{*}	D_{SBH}
N=110	$VM_{0,0}$	6.2	6.2	6.2	98.8	98.8	98.8
	$VM_{2,7}$	7.7	7.7	7.7	59.6	59.6	59.6
	$VM_{2,15}$	7.7	7.7	7.7	47.6	47.6	47.6
	$VM_{0,0;2,7}$	14.2	14.2	14.2	78.8	78.8	78.8
	$VM_{2,7;2,15}$	8.8	8.8	8.8	52.6	52.6	52.6
	$CN_{2,10}$	0.8	0.8	1.0	55.3	55.3	55.3
	$CN_{0,0;2,10}$	8.1	8.1	8.1	74.7	74.7	74.7
N=220	$VM_{0,0}$	6.4	6.4	6.4	100	100	100
	$VM_{2,7}$	6.5	6.5	6.5	86.7	86.7	86.7
	$VM_{2,15}$	6.1	6.1	6.1	65.1	65.1	65.1
	$VM_{0,0;2,7}$	11.2	11.2	11.2	96.9	96.9	96.9
	$VM_{2,7;2,15}$	7.3	7.3	7.3	73.0	73.0	73.0
	$CN_{2,10}$	1.7	1.7	1.7	90.8	90.8	90.8
	$CN_{0,0;2,10}$	5.7	5.7	5.7	98.4	98.4	98.4
N=880	$VM_{0,0}$	4.7	4.7	4.7	100	100	100
	$VM_{2,7}$	5.6	5.6	5.6	100	100	100
	$VM_{2,15}$	4.2	4.2	4.2	99.1	99.1	99.1
	$VM_{0,0;2,7}$	6.7	6.7	6.7	100	100	100
	$VM_{2,7;2,15}$	5.8	5.8	5.8	99.8	99.8	99.8
	$CN_{2,10}$	1.6	1.6	1.6	100	100	100
	$CN_{0,0;2,10}$	2.5	2.5	2.5	100	100	100
N_1=55, N_2=165	$VM_{0,0}$	14.1	14.1	14.1	96.6	96.6	96.6
	$VM_{2,7}$	17.6	17.6	17.6	57.2	57.3	57.3
	$VM_{2,15}$	17.1	17.1	17.1	45.5	45.6	45.6
	$VM_{0,0;2,7}$	7.2	7.2	7.2	81.7	81.7	81.7
	$VM_{2,7;2,15}$	12.8	12.8	12.8	48.1	48.1	48.1
	$CN_{2,10}$	8.1	8.1	8.7	47.2	47.2	47.5
	$CN_{0,0;2,10}$	5.3	5.3	5.3	81.4	81.4	81.4
N_1=110, N_2=330	$VM_{0,0}$	8.6	8.6	8.6	100	100	100
	$VM_{2,7}$	12.0	12.0	12.0	76.1	76.1	76.1
	$VM_{2,15}$	12.6	12.6	12.6	55.0	55.0	55.0
	$VM_{0,0;2,7}$	5.4	5.4	5.4	98.4	98.4	98.4
	$VM_{2,7;2,15}$	8.0	8.0	8.0	66.0	66.0	66.0
	$CN_{2,10}$	5.0	5.0	5.1	78.3	78.3	78.3
	$CN_{0,0;2,10}$	3.9	3.9	3.9	99.3	99.3	99.3
N_1=440, N_2=1320	$VM_{0,0}$	6.1	6.1	6.1	100	100	100
	$VM_{2,7}$	7.2	7.2	7.2	99.9	99.9	99.9
	$VM_{2,15}$	6.8	6.8	6.8	96.1	96.1	96.1
	$VM_{0,0;2,7}$	5.2	5.2	5.2	100	100	100
	$VM_{2,7;2,15}$	5.3	5.3	5.3	99.7	99.7	99.7
	$CN_{2,10}$	3.5	3.5	3.5	100	100	100
	$CN_{0,0;2,10}$	2.9	2.9	2.9	100	100	100

Table 33. *Comparison of D_{SB1}, D_{SB1}^{*}, and D_{SBH} When Testing Strict Invariance When p=8.* Note: Rejection rates for D_{SB1} exclude negative chi-square differences. Rejection rates for D_{SB1}* are the rejection rates for D_{SB1} when negative chi-square differences are interpreted as rejections.

		Type I Error			Power		
		D_{SB1}	D_{SB1}^{*}	D_{SBH}	D_{SB1}	D_{SB1}^{*}	D_{SBH}
N=110	$VM_{0,0}$	8.9	8.9	8.9	100	100	100
	$VM_{2,7}$	5.5	5.5	5.5	89.9	89.9	89.9
	$VM_{2,15}$	4.9	4.9	4.9	73.7	73.7	73.7
	$VM_{0,0;2,7}$	17.8	17.8	17.8	97.3	97.3	97.3
	$VM_{2,7;2,15}$	7.7	7.7	7.7	80.8	80.8	80.8
	$CN_{2,10}$	0.1	0.1	0.1	85.1	85.1	85.1
	$CN_{0,0;2,10}$	17.7	17.7	17.7	90.5	90.5	90.5
N=220	$VM_{0,0}$	7.8	7.8	7.8	100	100	100
	$VM_{2,7}$	3.8	3.8	3.8	99.9	99.9	99.9
	$VM_{2,15}$	4.1	4.1	4.1	91.2	91.2	91.2
	$VM_{0,0;2,7}$	12.9	12.9	12.9	100	100	100
	$VM_{2,7;2,15}$	4.9	4.9	4.9	96.4	96.4	96.4
	$CN_{2,10}$	0.1	0.1	0.1	99.8	99.8	99.8
	$CN_{0,0;2,10}$	9.1	9.1	9.1	100	100	100
N=880	$VM_{0,0}$	4.2	4.2	4.2	100	100	100
	$VM_{2,7}$	4.8	4.8	4.8	100	100	100
	$VM_{2,15}$	4.3	4.3	4.3	100	100	100
	$VM_{0,0;2,7}$	8.3	8.3	8.3	100	100	100
	$VM_{2,7;2,15}$	6.1	6.1	6.1	100	100	100
	$CN_{2,10}$	0.4	0.4	0.4	100	100	100
	$CN_{0,0;2,10}$	3.6	3.6	3.6	100	100	100
N_1=55, N_2=165	$VM_{0,0}$	17.5	17.7	17.9	99.9	99.9	99.9
	$VM_{2,7}$	24.9	25.5	25.8	68.6	69.1	69.1
	$VM_{2,15}$	20.8	20.8	20.8	55.0	55.2	55.2
	$VM_{0,0;2,7}$	7.1	7.1	7.1	96.9	96.9	96.9
	$VM_{2,7;2,15}$	15.8	15.9	15.9	57.0	57.0	57.0
	$CN_{2,10}$	7.9	8.1	8.1	57.2	57.7	57.7
	$CN_{0,0;2,10}$	2.0	2.0	2.0	98.3	98.3	98.3
N_1=110, N_2=330	$VM_{0,0}$	15.9	16.0	16.0	100	100	100
	$VM_{2,7}$	19.1	19.1	19.1	91.8	91.8	91.8
	$VM_{2,15}$	15.9	16.0	16.0	73.7	73.7	73.7
	$VM_{0,0;2,7}$	7.6	7.6	7.6	100	100	100
	$VM_{2,7;2,15}$	11.0	11.0	11.0	86.7	86.7	86.7
	$CN_{2,10}$	6.4	6.5	6.5	95.9	95.9	95.9
	$CN_{0,0;2,10}$	1.5	1.5	1.5	100	100	100
N_1=440, N_2=1320	$VM_{0,0}$	7.9	7.9	7.9	100	100	100
	$VM_{2,7}$	9.3	9.3	9.3	100	100	100
	$VM_{2,15}$	8.8	8.8	8.8	99.9	99.9	99.9
	$VM_{0,0;2,7}$	7.8	7.8	7.8	100	100	100
	$VM_{2,7;2,15}$	6.4	6.4	6.4	100	100	100
	$CN_{2,10}$	2.1	2.1	2.1	100	100	100
	$CN_{0,0;2,10}$	1.1	1.1	1.1	100	100	100

Table 34. *Comparison of D_{SB1}, D_{SB1}^{*}, and D_{SBH} When Testing Strict Invariance When p=16.* Note: Rejection rates for D_{SB1} exclude negative chi-square differences. Rejection rates for D_{SB1}* are the rejection rates for D_{SB1} when negative chi-square differences are interpreted as rejections.