Objective: \$1,027,013,032,894; without intervention: \$1,003,571,304,682 (Desired optimality gap: 1%; actual: 0%. Lower Bound: \$1,025,987,000,000. Time to solve: 70s)  $C^I = \$10,000,C^D = \$10,000,000$  One Period=7 days (costs scaled by 1,000,000 during optimization) Solved using solve\_and\_process\_simple\_index\_block\_size\_7 Infected - No intervention Infected Cumulative Deaths - No intervention Cumulative Deaths Recovered - No intervention Recovered Susceptible - No intervention 250000 Susceptible Cumulative Costs of Interventions - \$800,000 Cumulative Cost Total Cumulative Cost Total - No intervention 200000 \$600,000 <u>은</u> 150000 · - \$400,000 100000 - \$200,000 100 40 Period 14 -99 -13

<pre>0. Movement A: \$[5000 ,10000]·10² B: \$[10000,20000]·10² C: \$[10    ,14  ]·10² P: [.95    ,.93 ]</pre>		1	
1. Education (University level) A: \$[0 ,0 ]·10 <sup>2</sup> B: \$[0 ,0 ]·10 <sup>2</sup> C: \$[10 ,14 ]·10 <sup>2</sup> P: [.99 ,.95 ]		1	
2. Social Gatherings (in a house) A: \$[0 ,0 ,0 ,0 ]·10 <sup>2</sup> B: \$[0 ,0 ,0 ,0 ]·10 <sup>2</sup> C: \$[8 ,10 ,12 ,14 ]·10 <sup>2</sup> P: [.99 ,.99 ,.97 ,.93 ]	1	1	1
3. Non-Food Service (bank,retail, etc) A: \$[2500 ,5000 ,10000]·10 <sup>2</sup> B: \$[5000 ,10000,20000]·10 <sup>2</sup> C: \$[8    ,10    ,14  ]·10 <sup>2</sup> P: [.99    ,.95    ,.93 ]		1	
4. Restaurants A: \$[5000 ,10000]·10 <sup>2</sup> B: \$[10000,20000]·10 <sup>2</sup> C: \$[10		1	
5. Masking A: \$[0 ,0 ,0 ]·10 <sup>2</sup> B: \$[0 ,0 ,0 ]·10 <sup>2</sup> C: \$[8 ,10 ,14 ]·10 <sup>2</sup> P: [.99 ,.95 ,.93 ]		1	
6. Mega Events A: \$[2500 ,5000 ,10000]·10 <sup>2</sup> B: \$[5000 ,10000,20000]·10 <sup>2</sup> C: \$[8     ,10     ,14  ]·10 <sup>2</sup> P: [.99     ,.95     ,.93 ]		1	
7. Border Control A: \$[5000 ,10000]·10 <sup>2</sup> B: \$[10000,20000]·10 <sup>2</sup> C: \$[10		1	
8. Physical Distancing A: \$[0 ]·10 <sup>2</sup> B: \$[0 ]·10 <sup>2</sup> C: \$[10 ]·10 <sup>2</sup> P: [.93 ]		1	
Cost Per Period: TOTAL Cost Per Period: POLICY Cost Per Period: DISEASE Probability Factor	\$8.3e+09 \$2.4e+08 \$8.1e+09 0.995	\$9.5e+10 \$2.5e+09 \$9.3e+10 0.773	\$3.5e+09 \$2.4e+08 \$3.3e+09 0.995