Objective: \$1, 194, 942, 749, 453; without intervention: \$1, 003, 571, 304, 682 (Desired optimality gap: 5%; actual: 100%. Time to solve: 1s)  $C' = \$10,000, C^D = \$10,000,000$ One Period=7 days (costs scaled by 1,000,000 during optimization) Infected - No intervention ···· Cumulative Deaths - No intervention Cumulative Deaths Recovered - No intervention 300000 - Susceptible - No intervention ← Cumulative Costs of Interventions O Cumulative Cost Total - O- Cumulative Cost Total - No intervention 1. Education (University level)
A: \$[0 ,0 ]·10<sup>2</sup>
C: \$[10 ,14 ]·10<sup>2</sup>
P: [.99 ,.95 ] 2. Social Gatherings (in a house)
A: \$[0 ,0 ,0 ,0 ]·10<sup>2</sup>
C: \$[8 ,10 ,12 ,14 ]·10<sup>2</sup>
P: [.99 ,.99 ,.97 ,.93 ] 3. Non-Food Service (bank, retail, etc)
A: \$[2500 ,5000 ,10000] \cdot 10^2
C: \$[8 ,10 ,14 ] \cdot 10^2
P: [.99 ,.95 ,.93 ] 4. Restaurants
A: \$[5000 ,10000] 10<sup>2</sup>
C: \$[10 ,14 ] 10<sup>2</sup>
P: [.95 ,.93 ] 5. Masking
A: \$[0 ,0 ,0 ]·10<sup>2</sup>
C: \$[8 ,10 ,14 ]·10<sup>2</sup>
P: [.99 ,.95 ,.93 ] 6. Mega Events
A: \$[2500 ,5000 ,10000]·10<sup>2</sup>
C: \$[8 ,10 ,14 ]·10<sup>2</sup>
P: [.99 ,.95 ,.93 ] 7. Border Control
A: \$[5000 ,10000]·10<sup>2</sup>
C: \$[10 ,14 ]·10<sup>2</sup>
P: [.95 ,.93 ] 8. Physical Distancing
A: \$[0 ] \cdot 10^2
C: \$[10 ] \cdot 10^2
P: [.93 ]