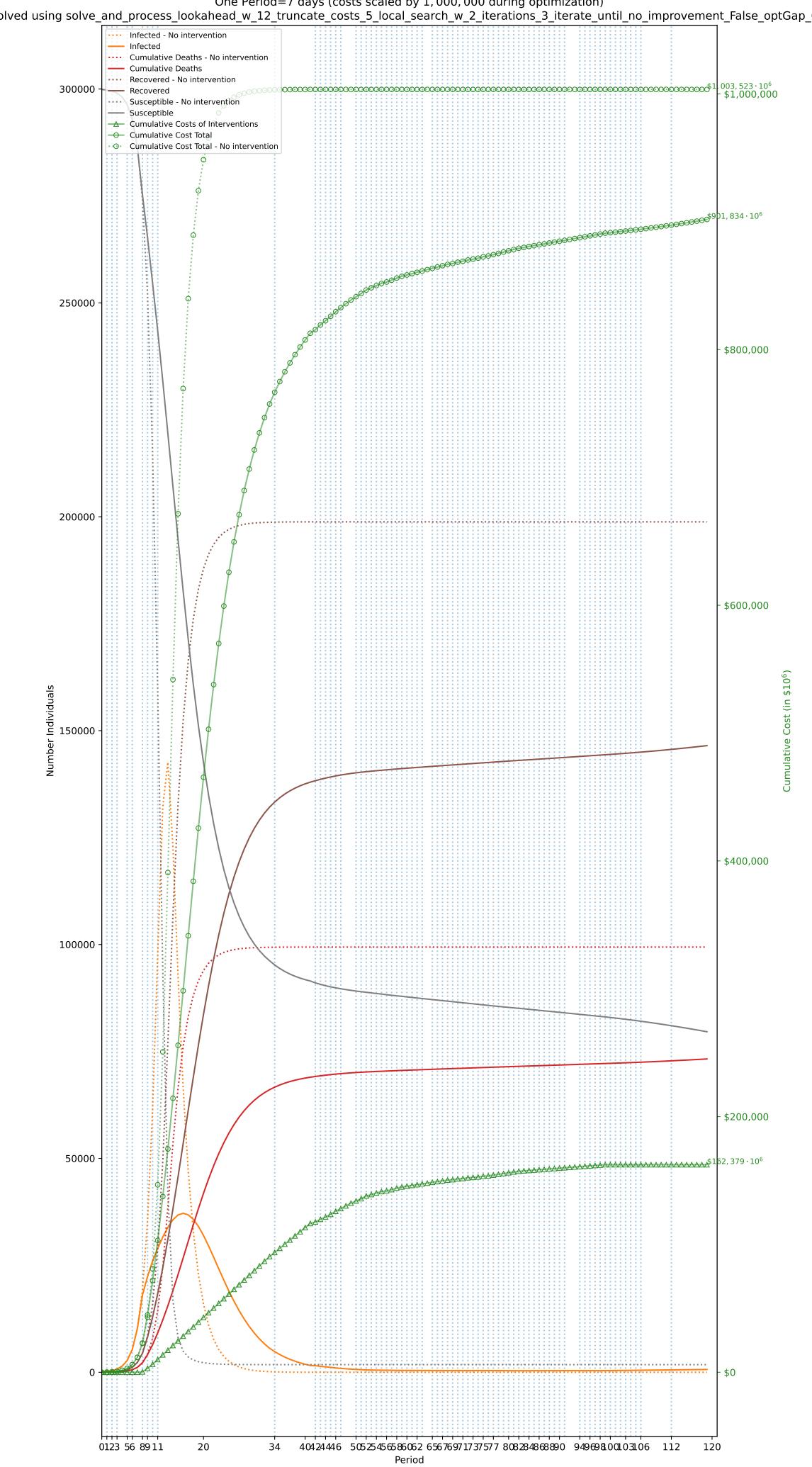
Objective: \$901, 834, 812, 505; without intervention: \$1,003,523,874,292 (Desired optimality gap: 50%; actual: 23%. Time to solve: 523s)  $C^I = \$10,000, C^D = \$10,000,000$  One Period=7 days (costs scaled by 1,000,000 during optimization) Solved using solve\_and\_process\_lookahead\_w\_12\_truncate\_costs\_5\_local\_search\_w\_2\_iterations\_3\_iterate\_until\_no\_improvement\_False\_optGap\_0.3



	1 2 - 1-	2 3 2-4	5 <del>(</del>	8 9 7-8-	9 10 9 10	11 -33	3	34 41	424 - 4; 4	134 <i>4</i> 4 <del>:</del> 4	1454 • 4!	1647 4 <b>-</b> 49	505 54!	152 5 <del>:</del> 5:	535. 5÷5	4555 45!	657 5(5)	585 5+!	5960 5 <del>!</del> 60	6162 6÷6	2636 - 6-	5566 6 <del>!</del> 6	6768 · 6 <del>-</del> 6	3697 4647	07 17 74 7 <del>1</del>	2737 7: 7:	7475 747!	767 7(7	7787 - 7 • 7	9808 4848	1828 3÷8;	8384 8 <del>1</del> 84	8586 848	6878 (878	8899 8484	9091 9 <b>-</b> 9	L949	9596 949	979 (979	9 <b>4</b> 9.9	.010 1 <b>0</b> 10	101 910	01 02 L01 0	10! : 10 -	106 111	117 -11	2
<pre>0. Movement A: \$[500 ,1000 ]·10² C: \$[10 ,14 ]·10² P: [.93 ,.9 ]</pre>	44	44	4	4:	L2	2	2			1 1	. 1 2	2 1	1	<b>1</b> 1				1		4	4	4		44	<b>1</b> 4	4	4	4	4	•			4	3			3		N - N	8	3	1	3 4				
1. Education (University level) A: \$[0 ,0 ]·10 <sup>2</sup> C: \$[10 ,14 ]·10 <sup>2</sup> P: [.99 ,.93 ]	44	44	4	14		2	4		44	4 4	44	44	44	44	4 4	44	44	44	4 4	44	4:	3 4			43	3		4			3	44	33	3		3 3	3	3	44	43	4	4	4 4				
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 ,.97 ,.95 ,.9 ]				4	14	4	4		4		4	4	4		4	4																															
3. Non-Food Service (bank,retail, etc) A: \$[250 ,500 ,1000 ]·10 <sup>2</sup> C: \$[8 ,10 ,14 ]·10 <sup>2</sup> P: [.99 ,.93 ,.9 ]		4	4	143	33	3	3			2 2	22	32	2	22	2		2			4	4	4	4	44	<b>,</b>	4	4		4	. 2	ı	44			4	4			4	44	4	4					
4. Restaurants A: \$[500 ,1000 ]·10 <sup>2</sup> C: \$[10 ,14 ]·10 <sup>2</sup> P: [.93 ,.9 ]	4	4	4	142	22	2	2		:	1 1	. 12	2 1	1:	1 1				1	14	44		4		44	ı	4	4		4				3	3	4				4	44		4	43				
5. Masking A: \$[0 ,0 ,0 ]·10 <sup>2</sup> C: \$[8 ,10 ,14 ]·10 <sup>2</sup> P: [.99 ,.93 ,.9 ]	44	44	4	142	23	3	3		32	2	23	3 2	3	2	3 2	32	2 2	22	2 2	2 2	22	2 2	2 2	4 2	242	24	42	42	2 2	222	22	44	44	44	14	44	4	44	44	44	44	4	44	4			
6. Mega Events A: \$[250 ,500 ,1000 ]·10 <sup>2</sup> C: \$[8 ,10 ,14 ]·10 <sup>2</sup> P: [.99 ,.93 ,.9 ]		4	4	142	23	3	3			2 2	224	42	2	22	2				4	4	4	4 4	4	44	14	4	4	4		4		4	4	<b> </b>	4	4			4	44	4	4	44				
7. Border Control A: \$[500 ,1000 ]·10 <sup>2</sup> C: \$[10 ,14 ]·10 <sup>2</sup> P: [.93 ,.9 ]		4	3 4	14:	L2	2	2			1 1	.14	4 1	-	11						4	. 4	4		44	<b>,</b>	4	4	4	44	. 4		4			4				4	43	44	4	4 4				
8. Physical Distancing A: \$[0 ]·10 <sup>2</sup> C: \$[10 ]·10 <sup>2</sup> P: [.9 ]	44	44	4	113	L 1	1	1		1	1 1	1:	1 1	1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1		L	1 1	1 1	. 1 1		L 1	11	1 1	. 1	1 1	1 1	1	1 1	1:	1 1	44	4	4 4	4 4	1		
Cost Per Period: TOTAL Cost Per Period: POLICY Cost Per Period: DISEASE Probability Factor	\$1.\$ \$0.\$ \$1.\$ 1.61	2.\$5. 0.\$0. 2.\$5.	\$1.\$ \$0.\$ \$1.\$ 1.61	1.\$1.\$ 1.\$36\$ 1.\$1.\$ 60.90	2.\$2. 2.\$3. 1.\$2. .40.4	\$3e+10 \$3.7e+09 \$2.6e+10 0.398	\$6.9 \$3. \$3. 0.43	9e+09 2e+09 7e+09 30	\$2.\$ \$1.\$ \$1.\$ 0.70	63.\$3 62.\$1 61.\$1 0.50.0	.\$3.\$ .\$2.\$ .\$1.\$ 60.50	3.\$3. 2.\$2. 1.\$9. 0.50.5	\$2.\$ \$1.\$ \$7.\$ (0.60	2.\$2. 1.\$2. 7.\$6. .60.5	\$1.\$1 \$1.\$1 \$5.\$5	. \$1. \$ . \$1. \$ . \$5. \$ . \$5. \$	51.\$1. 66 \$ \$96 55.\$56 0.80.7	.\$1.\$ !\$1.\$ !\$4.\$ !0.70	\$1.\$1e \$9e\$6e \$4.\$4.	\$1e \$1 \$6e \$6 \$4.\$4 0.80.	4 \$ 1 4 \$ 6 \$ 6 4 \$ 6 \$ 6 \$ 6 \$ 6 \$ 6 \$ 6 \$ 6	51e \$1e 56e \$6e 54.\$4	\$1e \$1 \$6e \$6 \$4.\$4 0.80.	6 \$ 7 . \$ . 6 \$ 3 6 \$ 6 . \$ 4 . \$ 4 8 0 . 9 0	Le \$7.\$ 5e \$3e \$ 1.\$4.\$ 80.90	16 \$7 .9 66 \$36 9 4 . \$4 .9 . 80 .90	\$7.\$1e \$3e\$6e \$4.\$4.	\$7.\$1 \$3e\$6 \$4.\$4 0.90.	4 \$ 1 4 \$ 1 4 \$ 6 4 \$ 6 . \$ 4 . \$ 4 8 0 . 8 0 .	e \$1e \$ e \$6e \$ . \$4e \$ 80.80	9.\$9. 66\$66 3.\$3.	\$6.\$6. \$3e\$3e \$3.\$3. 0.90.9	\$6.\$6 \$3 <b>4</b> \$3 \$3.\$3 0.90.	\$6.\$6.\$ \$3.\$ \$3.\$ 90.90	6.\$6.9 3e\$3e9 3.\$3.9	\$6.\$76 \$36 \$36 \$3.\$46 0.90.9	e-\$7e! e-\$3e! e-\$4e! 9(0.9)	\$7e \$7e \$3e \$3e \$4e \$4e 0 . 9 0 .9	e \$7e \$ e \$3e \$ e \$4e \$ g 0 . g 0	7e \$7e 3e \$3e 4e \$4e 0.90.9	\$46 \$4 \$0.\$0 \$46 \$4 1.61.	1.\$4.9 0.\$0.9 1.\$4.9 61.6	\$4.\$4 \$0.\$0 \$4.\$4 1.61.6	.\$4.\$ .\$0.\$ .\$4.\$ 1.61	5.2e+6 0.0 5.2e+6 .000	\$6.3e \$0.0 \$6.3e 1.000	;+08 ;+08 )