

A Hybrid Data-Driven-Agent-Based Modelling Framework for Water Distribution Systems Contamination Response during COVID-19

Leonid Kadinski, Camilo Salcedo, Dominic L. Boccelli, Emily Berglund and Avi Ostfeld

Supplementary Material

Table S1. Relevant Social Background Characteristics of Consumer Agents Divided into Three Society Types and the Distribution in Every Society Type.

Social Background	Type 1	Type 2	Type 3
Gender		%	
Male	47.1	47.1	47.1
Female	52.9	52.9	52.9
Age	NA	NA	NA
0–12	11.7	10.5	9.5
12–21	12.5	11.6	7.4
21–30	8.6	10.9	11.9
30–40	13.4	15.7	19.3
40–49	18.4	21.8	23.8
49–59	12.1	13	14.7
59–70	13.3	9	9.8
70–85	10	7.5	3.6
Parent status	NA	NA	NA
Child < 16	25.6	22	16.4
Child > 16	57	54.3	43.9
No children	17.4	23.7	39.7
Marital status	NA	NA	NA
Single	21	25.1	30.9
Married	73.3	68.9	62.7
Divorced/separated	5.7	6	6.4
Household size	NA	NA	NA
≥ 6	9	8.3	7
3–5	77.6	80.6	83.6
2	11.9	10.6	7.5
1	1.5	0.5	1.9
Employment status	NA	NA	NA
Unemployed	10.3	5	1.2
Retired	8.5	5.1	4.3
Student	26.3	27.3	36.7
Employed	54.9	62.6	57.8
Educational attainment	NA	NA	NA
None	1.3	0.7	0.1
Primary school	6.7	3.1	0.2
Lower secondary school	21.5	15	2.3
Upper secondary school	50.6	55	22
University—bachelors	14.3	17.2	33.3
University—masters	5.4	8.2	38.5
University—doctorate	0.2	0.8	3.6

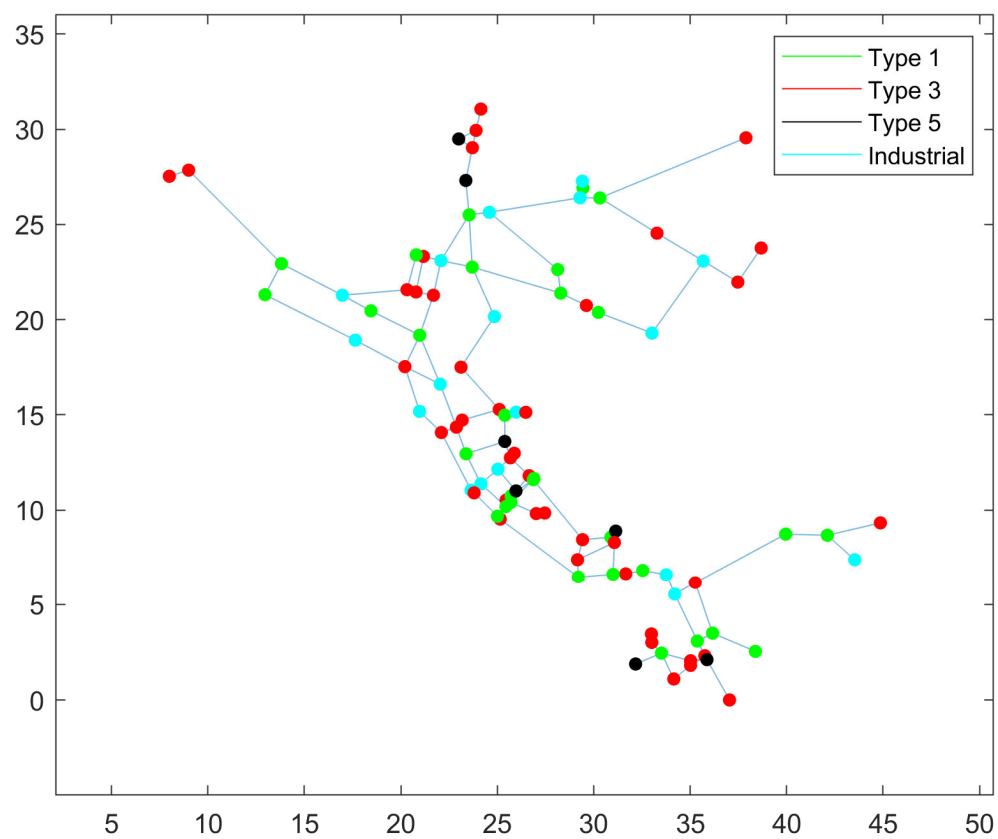


Figure S1. Distribution of three society types, including industrial and facility nodes in the EPANET example application network, Net3.