

## 0.1 Tree Graph

For the Tree graph, the Graph Generator used the following parameters:

- Type of graph: Tree
- Number of vertices: 20
- Number of edges: 19
- Random generator seed: 1615826088771

and the model took the following parameters:

- Total defence quota each turn: 1.0
- Probability with which the infection propagates: 1.0

### 0.1.1 Deterministic Protection Allocation

Source node	Winning Strategy	Infections	Protections	End-Turn
0	Proximity	1	19	21
1	Proximity	1	19	21
2	Proximity	1	19	27
2	Degree	1	19	27
3	Proximity	1	19	29
3	Degree	1	19	29
3	Protection	1	19	29
4	Proximity	1	19	27
4	Degree	1	19	27
5	Proximity	1	19	23
6	Proximity	1	19	25
7	Proximity	1	19	27
7	Degree	1	19	27
8	Proximity	1	19	29
8	Protection	1	19	29
9	Proximity	1	19	23
10	Proximity	1	19	29
10	Protection	1	19	29
11	Proximity	1	19	25
11	Protection	1	19	25
12	Proximity	1	19	23
13	Proximity	1	19	27
14	Proximity	1	19	27
14	Degree	1	19	27
15	Proximity	1	19	27
16	Proximity	1	19	27
16	Degree	1	19	27
17	Proximity	1	19	25
18	Proximity	1	19	23
19	Proximity	1	19	29
19	Degree	1	19	29
19	Protection	1	19	29



Figure 1: Model results on a Tree graph by source node for each defence strategy with deterministic initial protection allocation.

### 0.1.2 Mixed Protection Allocation

Source node	Winning Strategy	Infections	Protections	End-Turn
0	Proximity	1	19	3
0	Protection	1	19	3
1	Proximity	2	18	7
1	Degree	2	18	7
2	Proximity	1	19	7
2	Degree	1	19	7
2	Protection	1	19	7
3	Proximity	1	19	5
3	Degree	1	19	5
4	Proximity	1	19	5
4	Degree	1	19	5
5	Degree	2	18	5
5	Protection	2	18	5
6	Proximity	2	18	7
6	Degree	2	18	7
7	Proximity	1	19	5
7	Degree	1	19	5
7	Protection	1	19	5
8	Proximity	1	19	7
8	Protection	1	19	7
9	Degree	2	18	5
10	Proximity	1	19	3
10	Degree	1	19	3
11	Protection	2	18	5
12	Protection	2	18	5
13	Proximity	2	18	5
14	Proximity	1	19	7
14	Degree	1	19	7
14	Protection	1	19	7
15	Protection	2	18	3
16	Proximity	1	19	5
16	Degree	1	19	5
16	Protection	1	19	5
17	Proximity	1	19	7
18	Proximity	3	17	11
18	Degree	3	17	11
19	Proximity	1	19	3
19	Degree	1	19	3

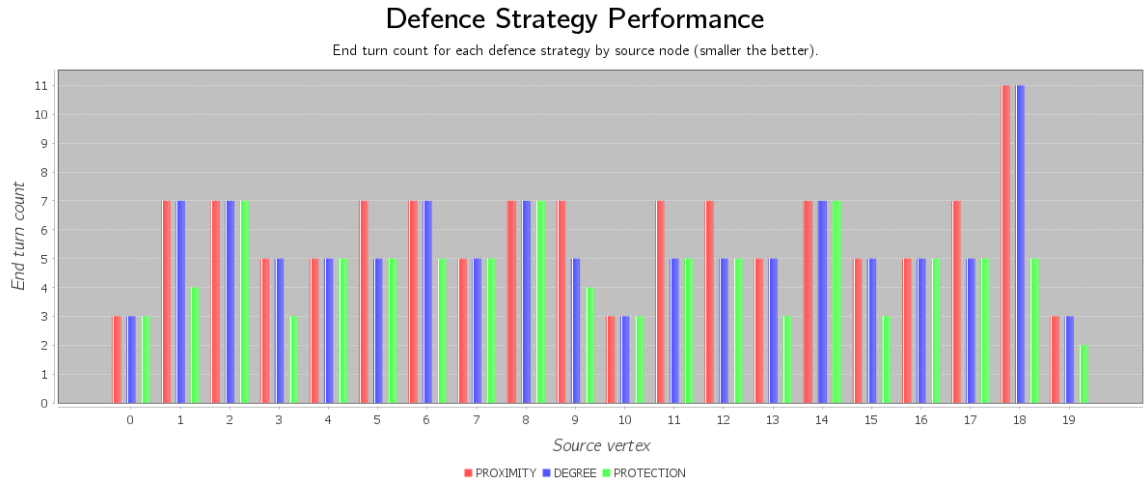
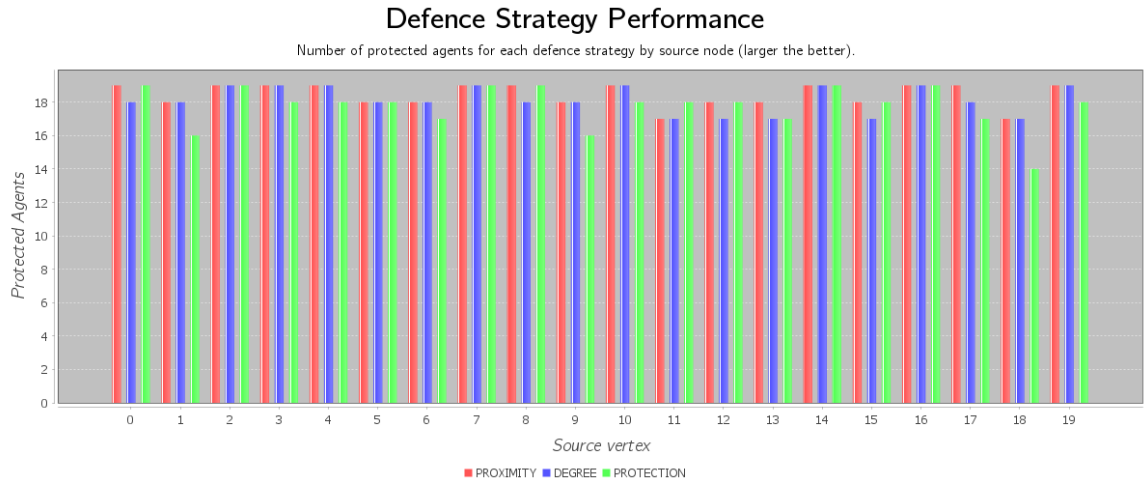
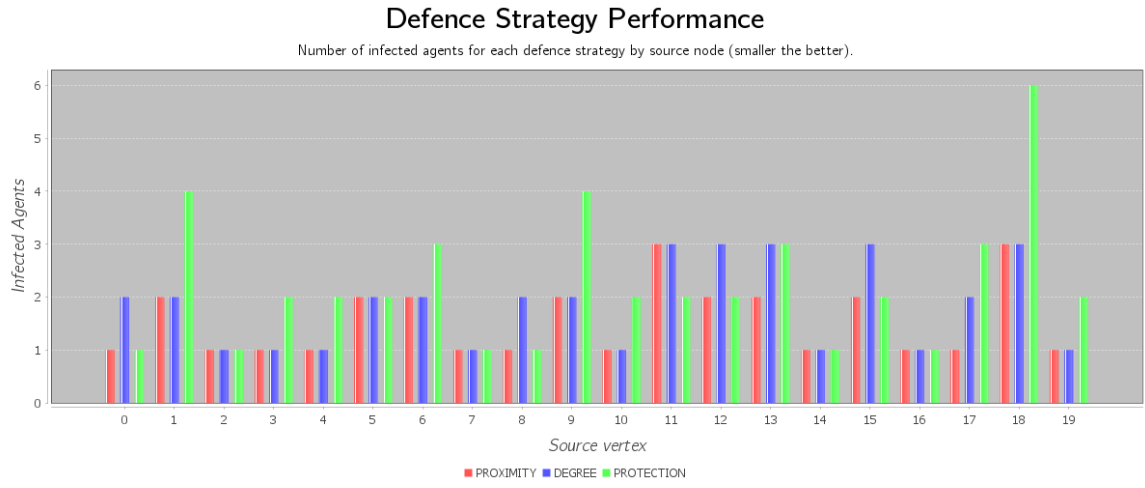


Figure 2: Model results on a Tree graph by source node for each defence strategy with mixed initial protection allocation.

### 0.1.3 Random Protection Allocation

Source node	Winning Strategy	Infections	Protections	End-Turn
0	Proximity	1	19	17
1	Protection	5	15	13
2	Proximity	1	19	17
2	Degree	1	19	17
2	Protection	1	19	17
3	Proximity	1	19	19
3	Degree	1	19	19
3	Protection	1	19	19
4	Proximity	1	19	19
4	Degree	1	19	19
5	Degree	2	18	11
5	Protection	2	18	11
6	Proximity	1	19	15
7	Proximity	1	19	17
7	Degree	1	19	17
7	Protection	1	19	17
8	Proximity	1	19	21
9	Proximity	3	17	19
10	Proximity	1	19	21
11	Proximity	2	18	21
12	Proximity	3	17	17
12	Degree	3	17	17
13	Proximity	2	18	19
14	Proximity	1	19	23
14	Degree	1	19	23
15	Proximity	2	18	21
16	Proximity	1	19	17
16	Degree	1	19	17
16	Protection	1	19	17
17	Proximity	1	19	17
18	Protection	4	16	13
19	Proximity	1	19	17
19	Degree	1	19	17

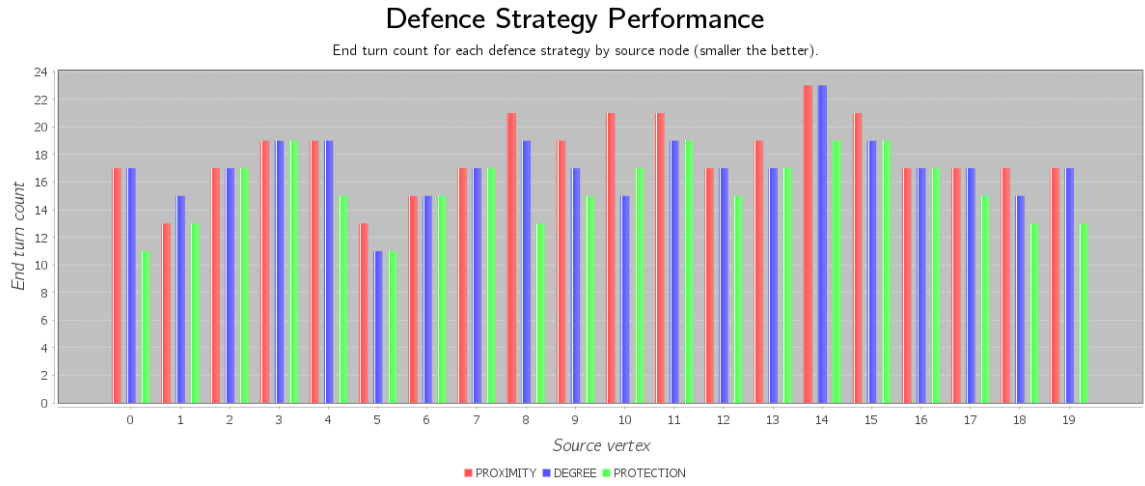
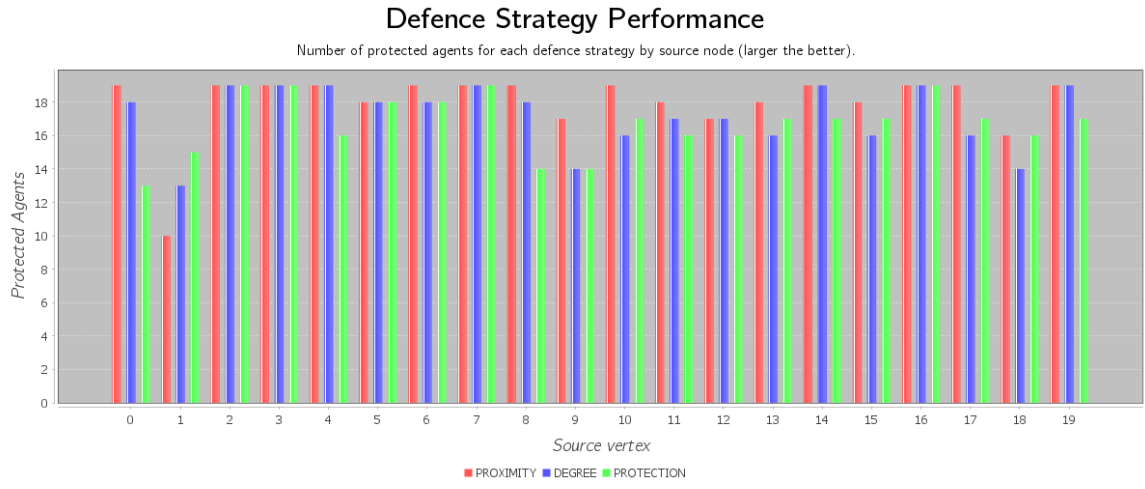
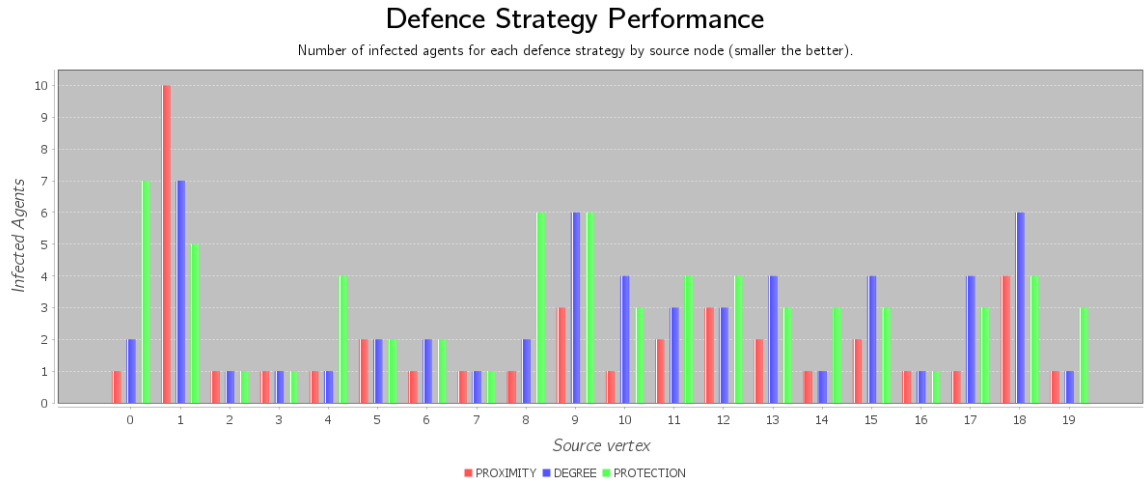


Figure 3: Model results on a Tree graph by source node for each defence strategy with random initial protection allocation.