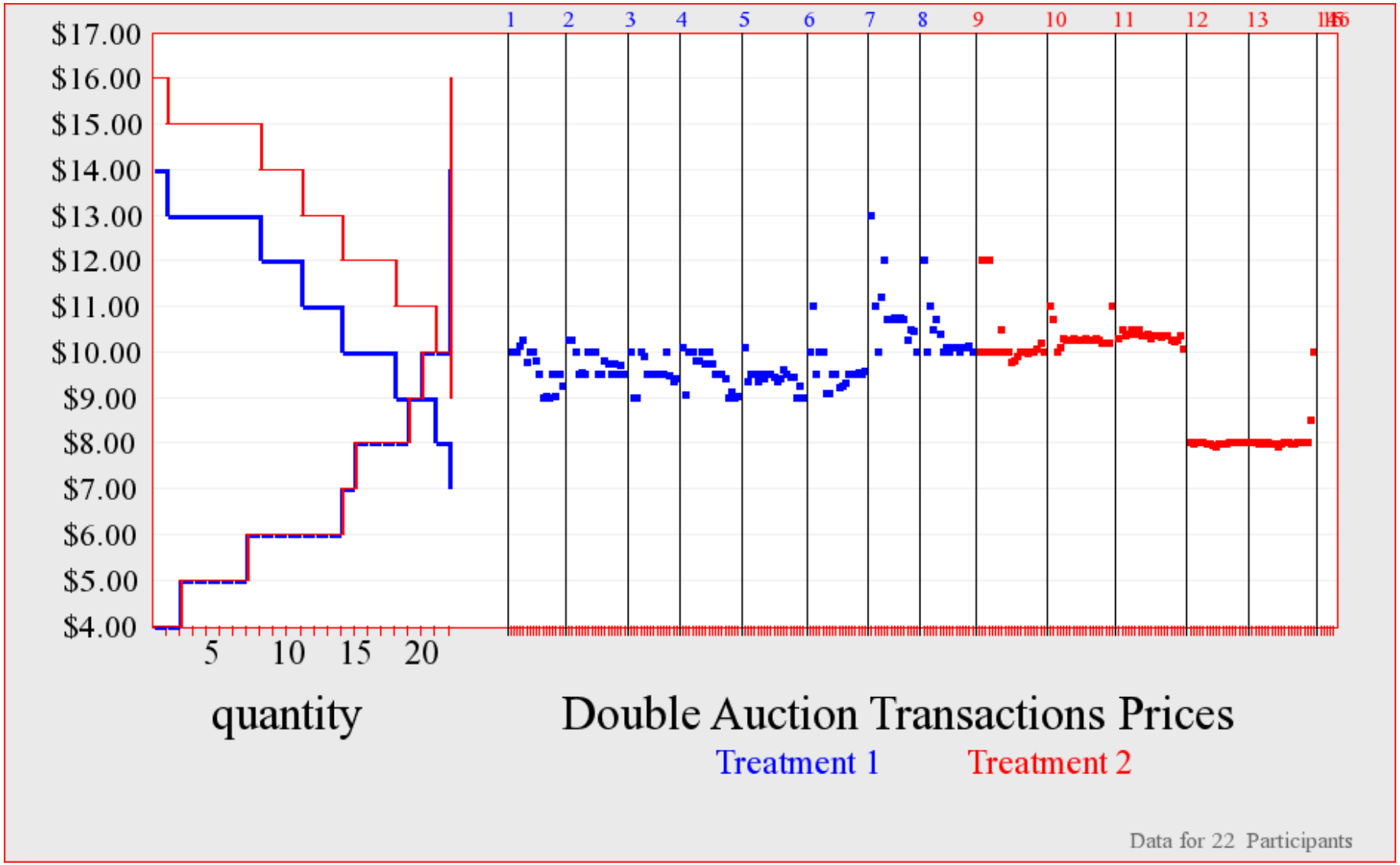
11:00 Experiment

Values and Costs (Treatment 1, Round 1)

Round	Unit	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11
1	1	$13.00	$13.00	$14.00	$13.00	$13.00	$12.00	$11.00	$10.00	$13.00	$11.00	$12.00
1	2	$8.00	$12.00	$13.00	$9.00	$13.00	$10.00	$10.00	$9.00	$10.00	$11.00	$9.00

Round	Unit	S12	S13	S14	S15	S16	S17	S18	S19	S20	S21	S22
1	1	$9.00	$6.00	$4.00	$5.00	$4.00	$6.00	$6.00	$5.00	$5.00	$6.00	$5.00
1	2	$10.00	$8.00	$6.00	$5.00	$8.00	$7.00	$6.00	$6.00	$8.00	$10.00	$8.00

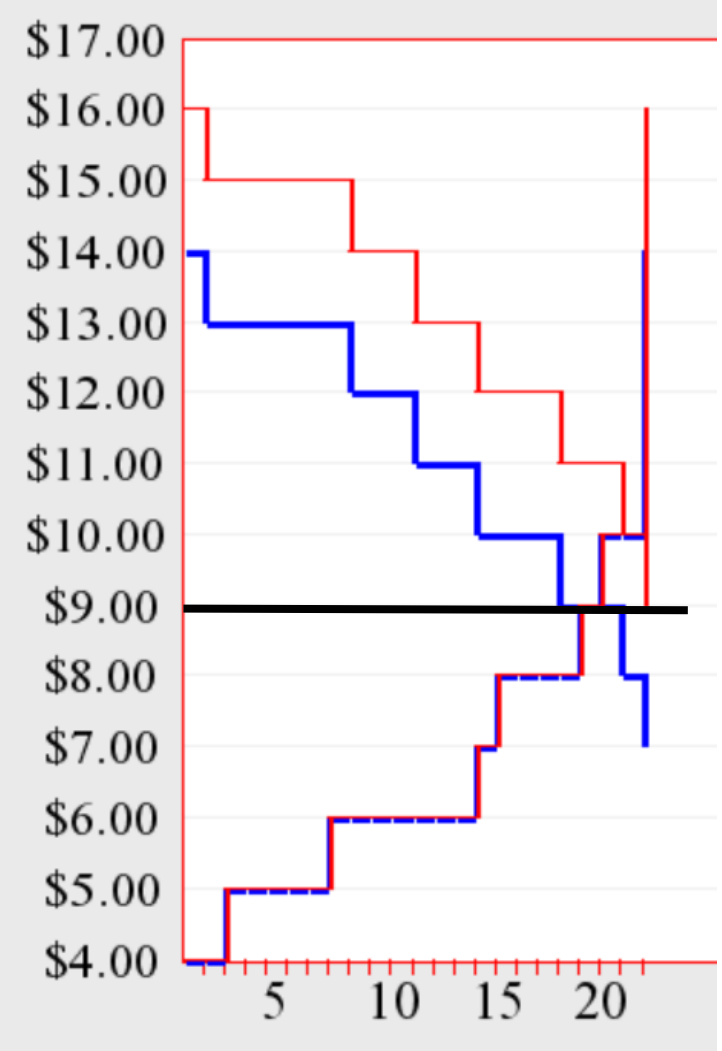
Competitive Equilibrium



Price and Quantity

Round	Expected P*	Average Actual P	Expected Q*	Actual Q
1	$9.00	$9.63	19 – 20	17
2	$9.00	$9.76	19 – 20	18
3	$9.00	$9.54	19 – 20	15
4	$9.00	$9.57	19 – 20	18
5	$9.00	$9.43	19 – 20	19
6	$9.00	$9.59	19 – 20	18
7	$10.00	$10.85	16 – 18	15
8	$10.00	$10.33	16 – 18	16
9	$10.00	$10.20	21 – 22	21
10	$10.00	$10.33	21 – 22	20
11	$10.00	$10.35	21 – 22	21
12	$8.00	$7.99	16 – 19	18
13	$8.00	$8.12	16 - 19	20

Expected Gains from Exchange: Treatment 1



No Tax

Consumer Surplus =
1 * (14 – 9) = 5
7 * (13 – 9) = 28
3 * (12 – 9) = 9
3 * (11 – 9) = 6
4 * (10 – 9) = 4
Total = $52

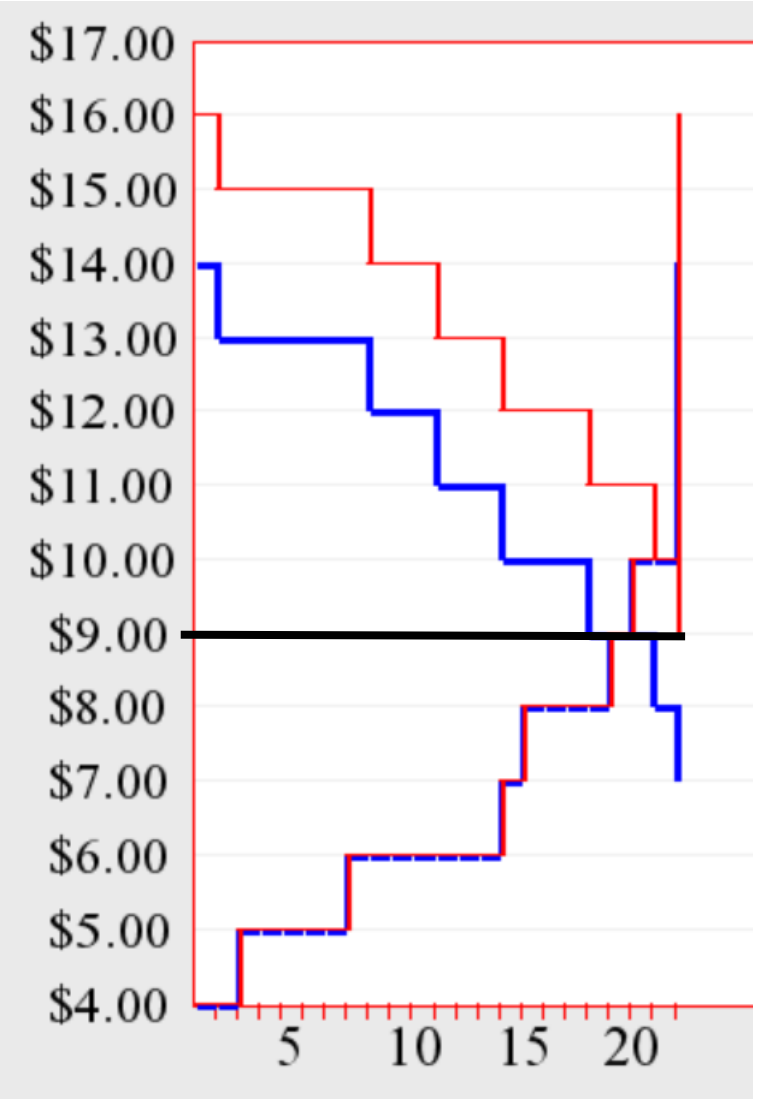
Producer Surplus =
2 * (9 – 4) = 10
5 * (9 – 5) = 20
7 * (9 – 6) = 21
1 * (9 – 7) = 2
4 * (9 – 8) = 4
Total = $57

With Tax

Consumer Surplus =
1 * (14 – 10) = 4
7 * (13 – 10) = 21
3 * (12 – 10) = 6
3 * (11 – 10) = 3
4 * (10 – 10) = 0
Total = $34

Producer Surplus =
2 * (10 – 6) = 8
5 * (10 – 7) = 15
7 * (10 – 8) = 14
1 * (10 – 9) = 1
3 * (10 – 10) = 0
Total = $38

Expected Gains from Exchange



Treatment 2, No ceiling

Consumer Surplus =
1 * (16 – 10) = 6
7 * (15 – 10) = 35
3 * (14 – 10) = 12
3 * (13 – 10) = 9
4 * (12 – 10) = 8
3 * (11 – 10) = 3
Total = $73

Producer Surplus =
2 * (10 – 4) = 12
5 * (10 – 5) = 25
7 * (10 – 6) = 28
1 * (10 – 7) = 3
4 * (10 – 8) = 8
1 * (10 – 9) = 1
Total = $77

Tr. 2, Ceiling (best)

Consumer Surplus =
1 * (16 – 8) = 8
7 * (15 – 8) = 49
3 * (14 – 8) = 18
3 * (13 – 8) = 15
4 * (12 – 8) = 16
1 * (11 – 8) = 3
Total = $109

Producer Surplus =
2 * (8 – 4) = 8
5 * (8 – 5) = 15
7 * (8 – 6) = 14
1 * (8 – 7) = 1
4 * (8 – 8) = 0
Total = $38

Tr. 2, Ceiling (worst)

Consumer Surplus =
1 * (10 – 8) = 2
3 * (11 – 8) = 24
4 * (12 – 8) = 16
3 * (13 – 8) = 15
3 * (14 – 8) = 18
1 * (11 – 8) = 3
Total = $79

Producer Surplus =
2 * (8 – 4) = 8
5 * (8 – 5) = 15
7 * (8 – 6) = 14
1 * (8 – 7) = 1
4 * (8 – 8) = 0
Total = $38

Potential vs. Realized Gains

Round	Exp. CS	Real. CS	Exp. PS	Real. PS	Exp. Gains	Real. Gains	Efficiency
1	52	40.26	57	62.74	109	103	94.5%
2	52	38.40	57	66.60	109	105	96.3%
3	52	38.88	57	57.12	109	96	88.1%
4	52	40.75	57	60.25	109	101	92.7%
5	52	43.85	57	62.15	109	106	97.2%
6	52	41.40	57	64.60	109	106	97.2%
7	32	21.28	38	48.72	109/72	70	64.2%/97.2%
8	32	28.77	38	43.23	109/72	72	66.1%/100%
9	73	68.85	77	81.15	150	150	100%
10	73	65.37	77	81.63	150	147	98.0%
11	73	65.75	77	84.25	150	150	100%
12	79/109	98.21	38	37.79	117/147/150	136	92.5%/90.7%
13	79/109	105.66	38	38.34	117/147/150	144	98.0%/96.0%