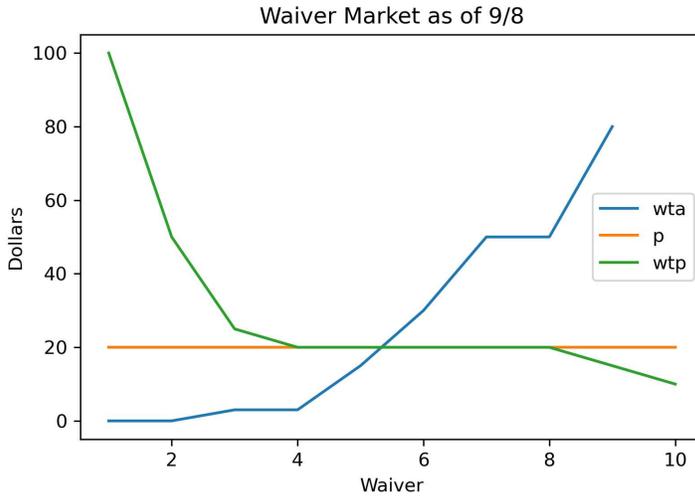


Waiver Market Results

Note: corrected figures and price. Revised numbers are shown in red.

Market diagram:



Equilibrium:

$$P^* = \$20$$

$$Q^* = 5$$

Detailed data:

Waiver	WTP	P	WTA	Trades?	CS	PS
1	100	20	0	Yes	80	20
2	50	20	0	Yes	30	20
3	25	20	3	Yes	5	17
4	20	20	3	Yes	0	17
5	20	20	15	Yes	0	5
6	20	20	30	no	--	--
7	20	20	50	no	--	--
8	20	20	50	no	--	--
9	15	20	80	no	--	--
10	10	20	599	no	--	--

Computing the total CS and PS:

$$\text{CS: } 80+30+5+0+0 = \$115$$

$$\text{PS: } 20+20+17+17+5 = \$79$$

Social surplus, SS, is CS + PS:

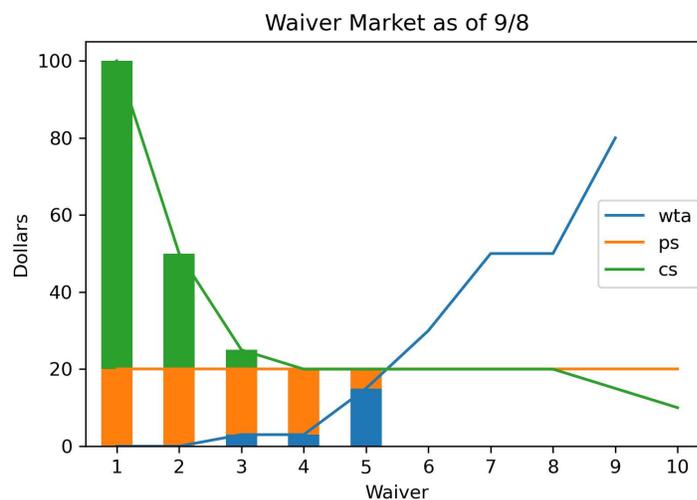
$$\text{SS} = \$115 + \$79 = \$194$$

SS is the overall *gain from trade*:

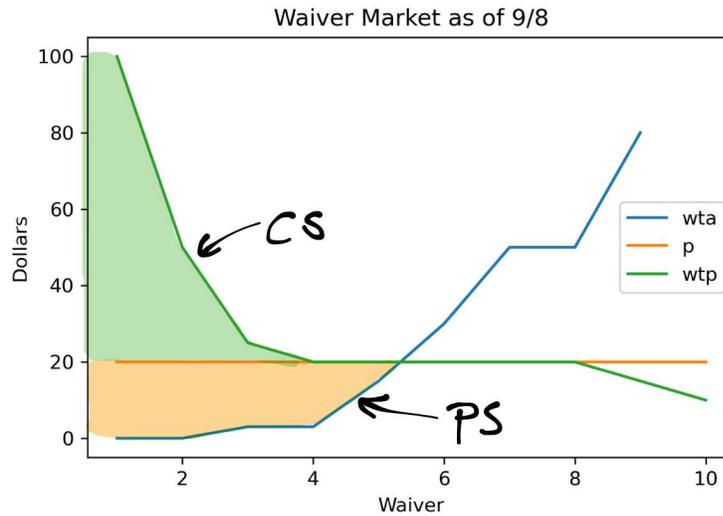
Net benefits produced by trading

Showing total CS and PS in the graph (omits \$599 WTA for unit 10):

Bar
graph
version



Area
graph
version



Exploring gains from trade a bit more:

Total value of waivers to owners (omitting unit 10)?

Before trading:

$$\text{Sum of WTAs} = 0+0+3+3+15+30+50+50+80 = \$231$$

After trading:

$$\text{Sum of WTPs for buyers: } 100+50+25+20+20 = \$215$$

$$\text{Sum of WTAs for non-sellers: } 30+50+50+80 = \$210$$

$$\text{Total } \$215 + \$210 = \$425$$

Net gain:

$$\$425 - \$231 = \$194$$

Economic value is **not** $P*Q$:

$$P*Q = \$20 * 10 = \$200$$

$$\text{Value to owners after trades: } \$425$$

Why the big difference?

Finally, WTP vs WTA bids (omitting unit 10's WTA):

Mean of WTP bid 1's: \$7

Mean WTA: \$26