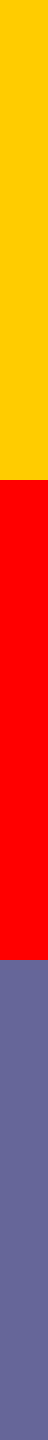


The Welfare Effects of Ticket Resale



Phillip Leslie & Alan Sorensen

Stanford GSB



Welfare Effects

- | Voluntary transactions
- | Reallocation of goods to high value consumers

Welfare Effects

- | Voluntary transactions
- | Reallocation of goods to high value consumers



Pareto
improving
trade

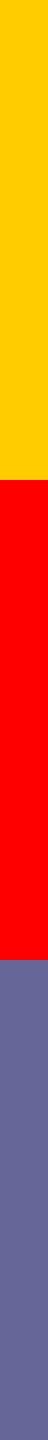
Welfare Effects

- i Voluntary transactions
- i Reallocation of goods to high value consumers



Pareto
improving
trade

- i Two complications
 - 1) Initial allocation in resale market is endogenous
 - 2) Brokers – create & capture value



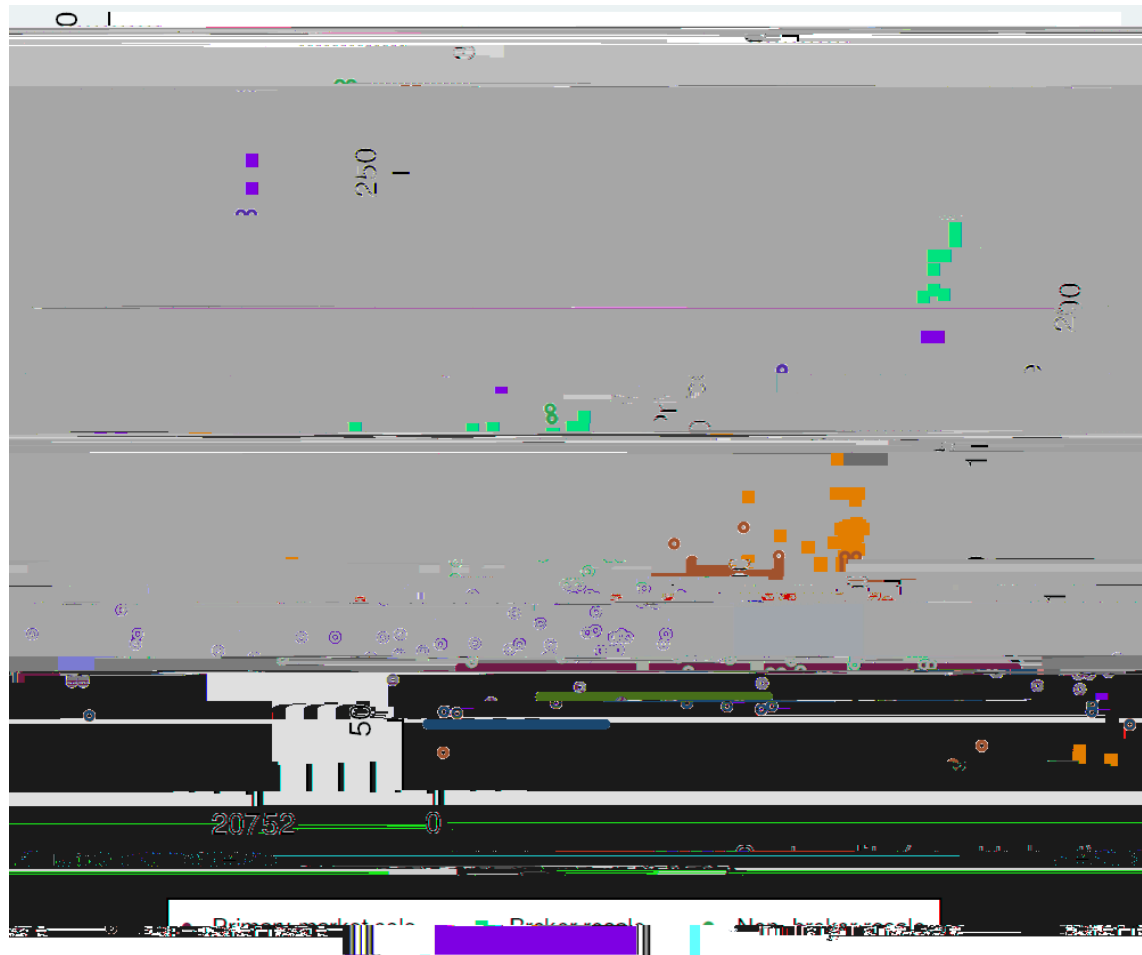
Complexity of Welfare Consequences

- 1) Resale reallocates tickets to people with highest values
- 2) Resale increases prices paid by attendees
- 3) Resale generates profits for brokers
- 4) Consumers may also profit from reselling
- 5) Resale causes some people to buy in the primary market who otherwise would not have (possibly increasing primary market sales)
- 6)

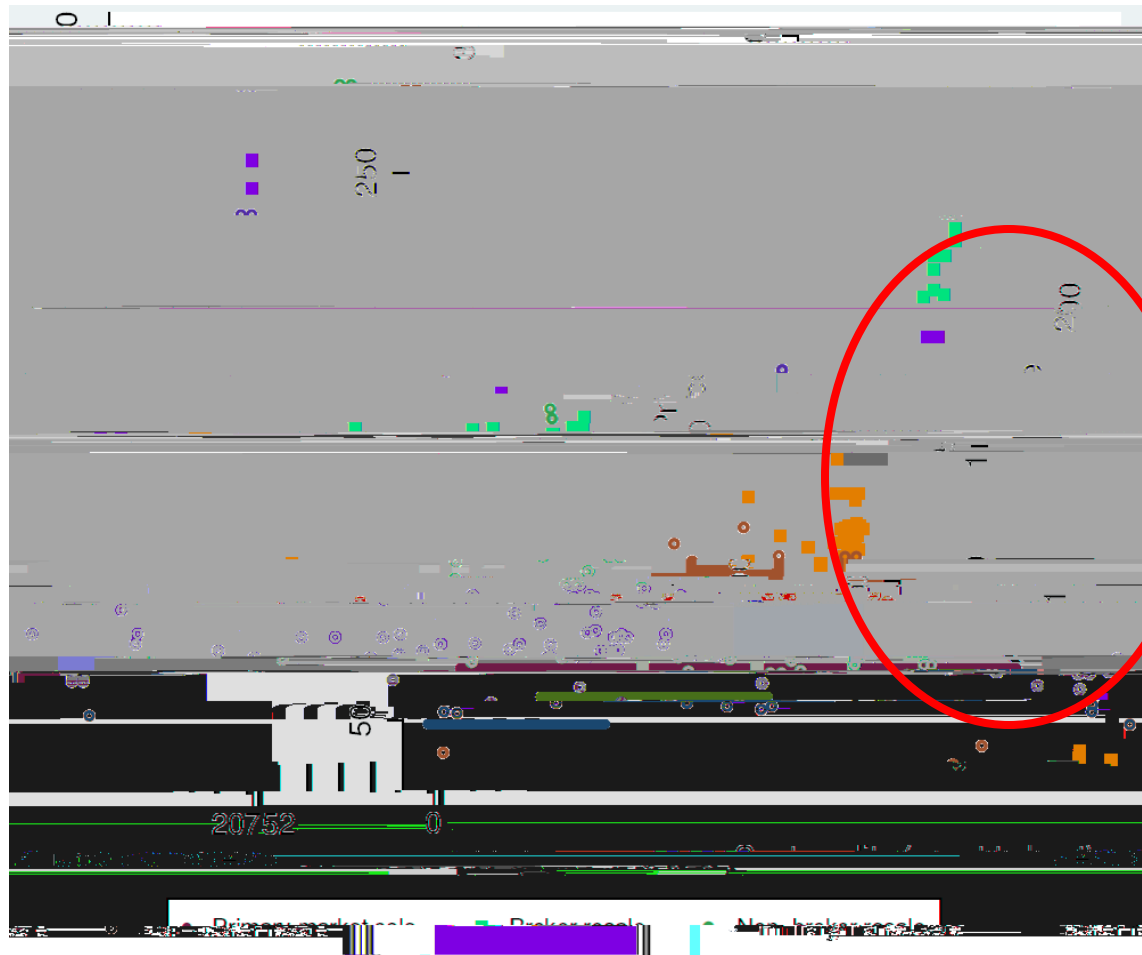
Preview of Structural Model

- ┆ Two periods
- ┆ Buyers are either brokers or consumers
- ┆ Buyers have rational expectations of secondary market equilibrium
- ┆ Frictions in resale market:
 - › Transaction costs (different for brokers & consumers)
 - › Random participation in resale auctions
- ┆ Uncertainty about overall level of demand in primary market

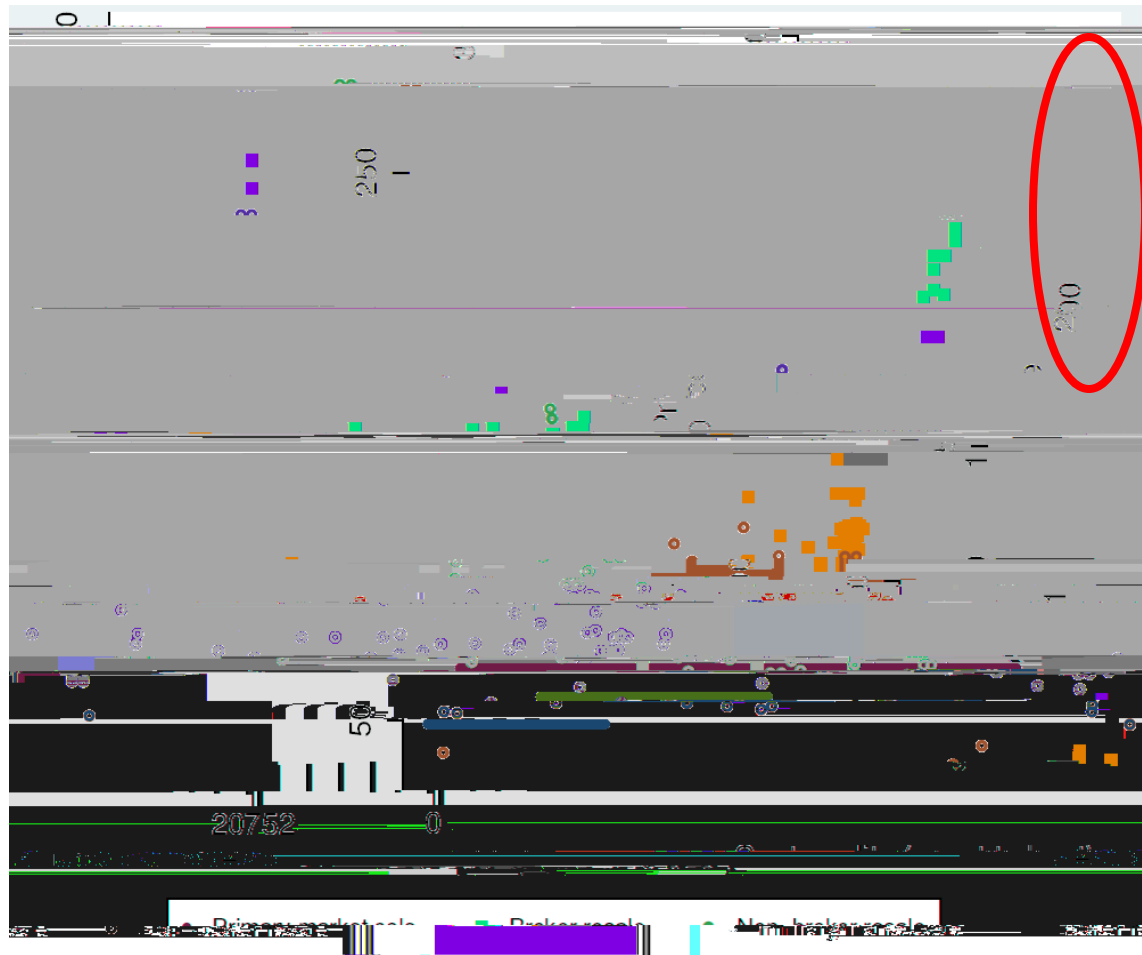
Kenny Chesney, Tacoma Dome (WA), 17 June, 2004



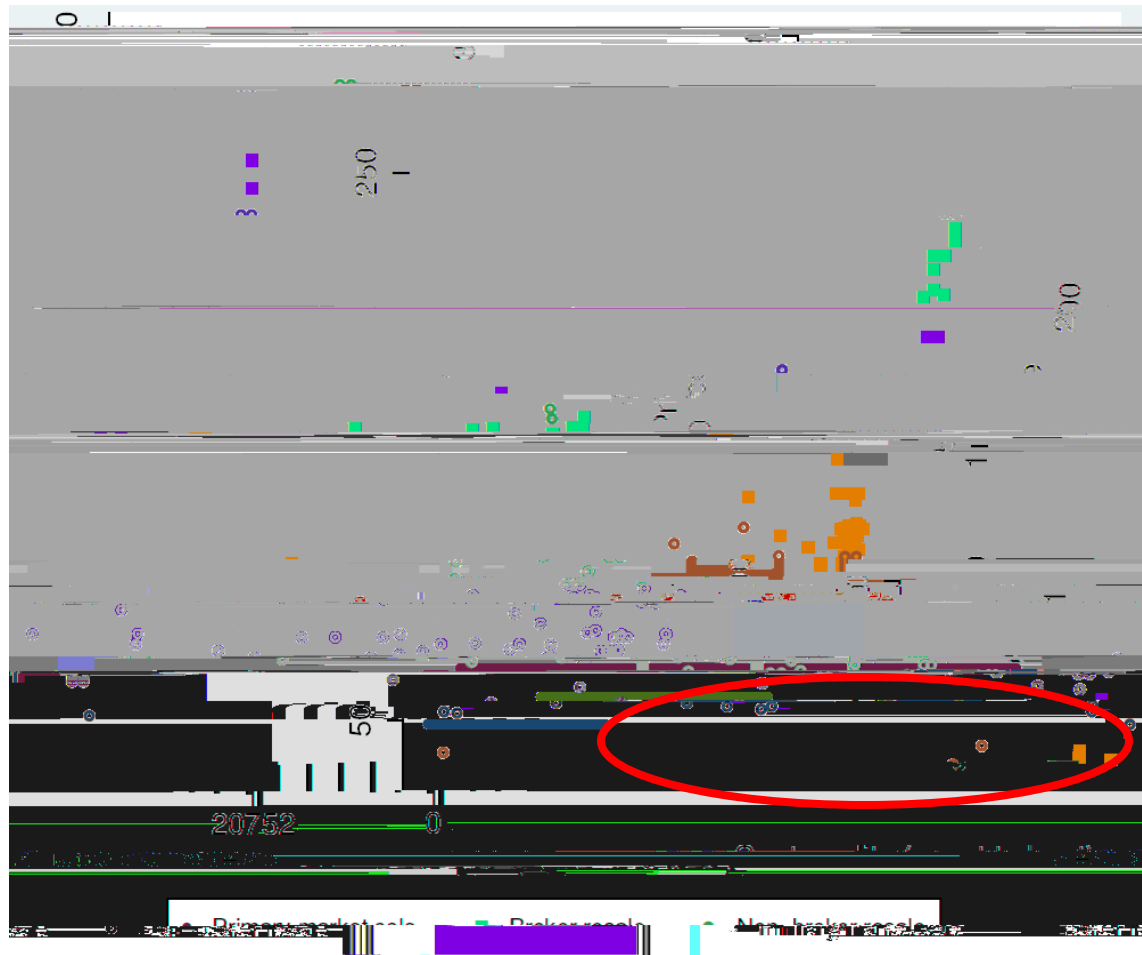
Kenny Chesney, Tacoma Dome (WA), 17 June, 2004



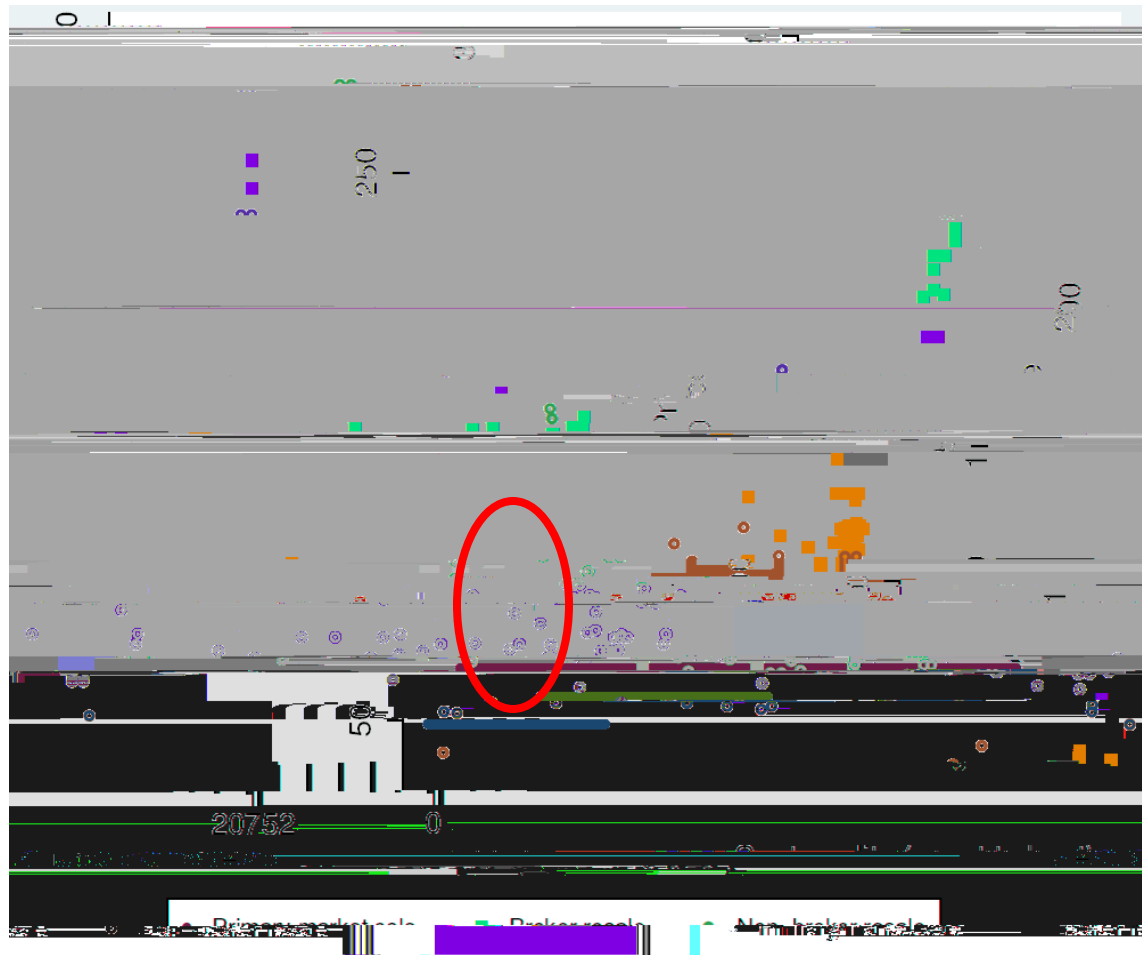
Kenny Chesney, Tacoma Dome (WA), 17 June, 2004



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Kenny Chesney, Tacoma Dome (WA), 17 June, 2004



Summary Stats – Resold Tickets, N = 68,828

Percentiles

Stat	Min	Q1	Q2	Q3	Max
Min	0.00	0.00	0.00	0.00	0.00
Q1	0.00	0.00	0.00	0.00	0.00
Q2	0.00	0.00	0.00	0.00	0.00
Q3	0.00	0.00	0.00	0.00	0.00
Max	0.00	0.00	0.00	0.00	0.00



Summary Stats – Resold Tickets, N = 68,828

Percentiles

Statistic	Mean	Std. Dev.	Max	Min	Q1	Q2	Q3	Q4
Resale Price	111.66	79.00	1000.00	0.00	25.00	50.00	75.00	100.00
Seat quality	0.62	0.27	1.00	0.00	0.29	0.60	0.87	1.00

Summary Stats – Resold Tickets, N = 68,828

Percentiles

RF	MIN	Q1	Q2	Q3	MAX	Mean	Std. Dev.	Var.	Skewness	Kurtosis
0.00	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
0.25	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
0.50	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
0.75	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
1.00	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000



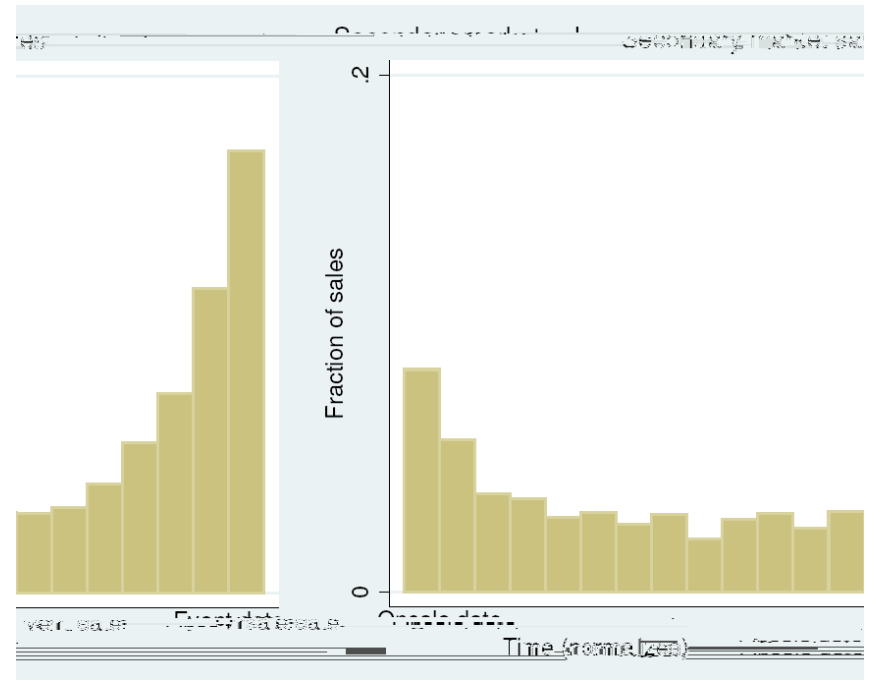
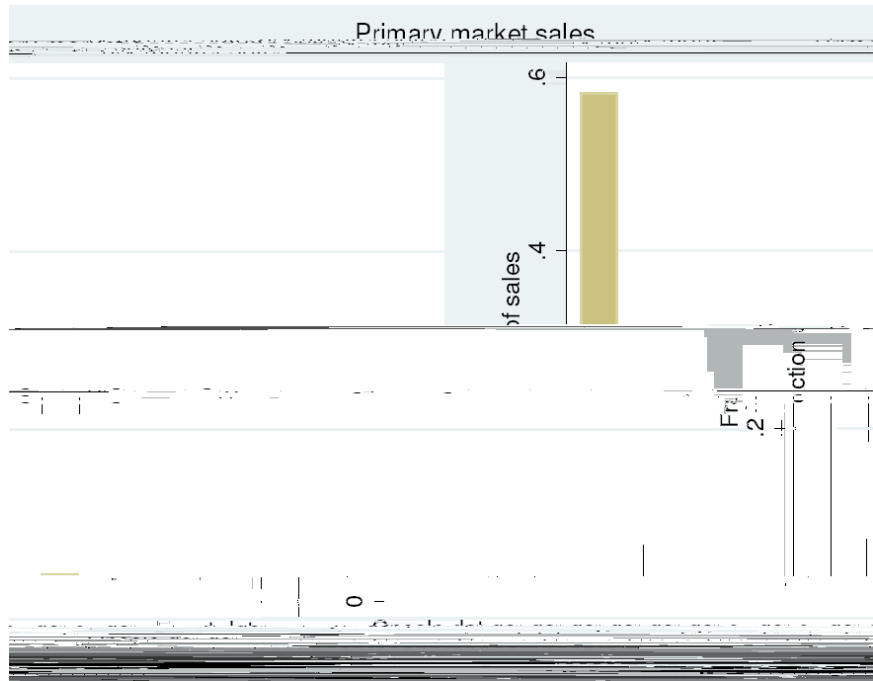
Summary Stats – Resold Tickets, N = 68,828

Percentiles

RF	Min	Q1	Mean	Std. Dev.	Q3	Max	Skewness	Kurtosis
0.00	0.000000	0.000000	111.66	79.00	0.00	05.00	01.05	1.04
0.01	0.000000	0.000000	111.66	79.00	0.00	05.00	01.05	1.04
0.05	0.000000	0.000000	111.66	79.00	0.00	05.00	01.05	1.04
0.10	0.000000	0.000000	111.66	79.00	0.00	05.00	01.05	1.04
0.25	0.000000	0.000000	111.66	79.00	0.00	05.00	01.05	1.04
0.50	0.000000	0.000000	111.66	79.00	0.00	05.00	01.05	1.04
0.75	0.000000	0.000000	111.66	79.00	0.00	05.00	01.05	1.04
0.90	0.000000	0.000000	111.66	79.00	0.00	05.00	01.05	1.04
0.95	0.000000	0.000000	111.66	79.00	0.00	05.00	01.05	1.04
0.99	0.000000	0.000000	111.66	79.00	0.00	05.00	01.05	1.04
1.00	0.000000	0.000000	111.66	79.00	0.00	05.00	01.05	1.04



Trans~~Si~~on Timing



Model Overview

Period 1 – Primary Market

Brokers & consumers arrive in random sequence

All have expectations about resale value of each seat

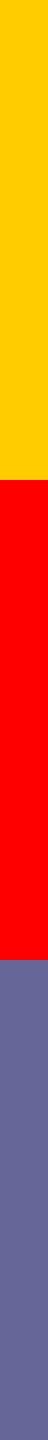
Consumers vary in WTP for themselves

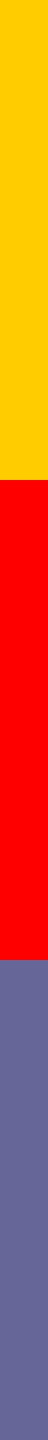
Period 2 – Resale Market

Start with an initial allocation among brokers & consumers

Sequence of auctions with random participation

No option to return to primary market





Preliminary Counterfactuals

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Zero trans	10% lower			Double	100 bidders	Best 10%	
Panel A	Number of tickets sold							
Number of tickets sold	16150.10	16250.04	16269.76	16252.92	16304.01	16331.03	16400.05	15193.10
Fraction of tickets sold	0.03	0.43	0.09	0.09	0.04	0.71	0.03	Fraction of tickets sold
Panel B	Average cost of a ticket							
Average cost of a ticket	1100.01	1050.00	1050.00	1050.00	1050.00	1050.00	1050.00	1100.01
Standard deviation	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Panel C	Standard deviation of the cost of a ticket							
Standard deviation of the cost of a ticket	880.25	140.00	100.00	500.27	557.27	500.45	500.12	510.70
Standard deviation of the cost of a ticket	880.25	140.00	100.00	500.27	557.27	500.45	500.12	510.70

Conclusions

- ⌋ Coarse pricing in the primary market is a (the?) key driver of resale activity
 - › As artists utilize more sophisticated pricing, resale activity will diminish
- ⌋ Resale markets redistribute surplus in subtle ways
 - › Observed levels of resale activity not large enough to make a big difference to overall welfare
 - › But large reductions in transaction costs would generate substantial gains in total welfare
 - › With near-frictionless resale markets, consumers who attend the events are the biggest losers