

Entry and Pricing on Broadway

Online Appendix

Taylor Jaworski* Maggie E.C. Jones† Mario Samano‡

A. Data

We used the XML package in R to retrieve the data (Lang, 2013). Specifically, for each entry event we define the associated market as the set of incumbents at the date of entry and their corresponding observations in a 10-week window around that entry event. The entrant is removed from this set of observations so that we only measure the pricing decisions of incumbents. This setting allows us to exploit the variation in the timing of entry events relative to each of the particular set of competitors in the week in which entry occurs.

The average number of shows and the average ticket price across all market-week observations is 18.9 and \$75.33, respectively. The average number of tickets sold per week was 7,709. Figure A.1A shows the average ticket price and Figure A.1B shows the number of total tickets sold in each week from June 30, 1985. These figures exhibit seasonality which we control for in our regressions (discussed in Section 4 in the main text).

B. Decomposition of the Effect on Prices

Column 2 of Table B.1 replaces the dependent variable in the main estimating equation with (log) seats sold; column 3 shows results with (log) revenue as the dependent variable, and column 1 repeats our main specification from Table 1 in the main text. To see the relative importance of price versus quantity changes before and after entry, contrast the estimated change in revenue three weeks before ($\beta_{\tau=-3} = -0.0177$) and after ($\beta_{\tau=3} = -0.0250$) entry.

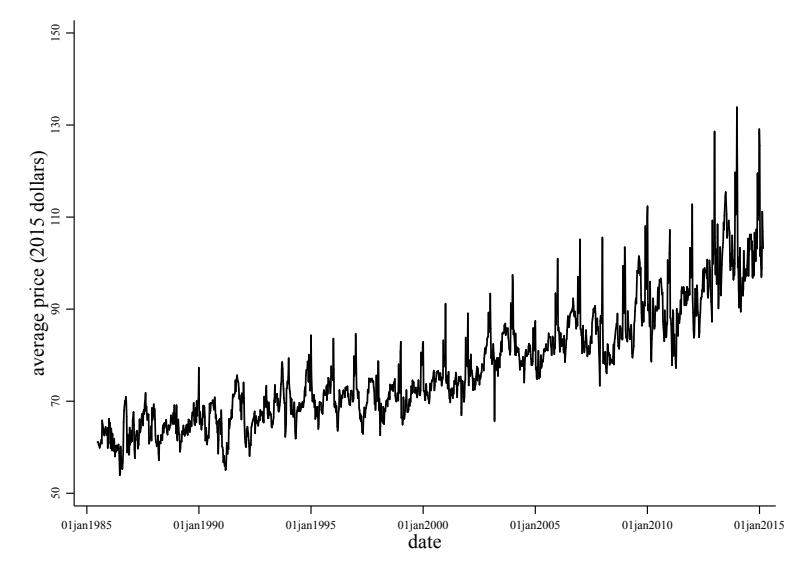
In this case, the change in price accounts for 60 percent of the change in revenue before entry relative to 33 percent after entry. This calculation is based on a decomposition in column 4 of Table B.1, which shows the absolute value of column 1 divided by the sum of

*Queen's University, Department of Economics, 94 University Avenue, Kingston, ON Canada, K7L 3N6.

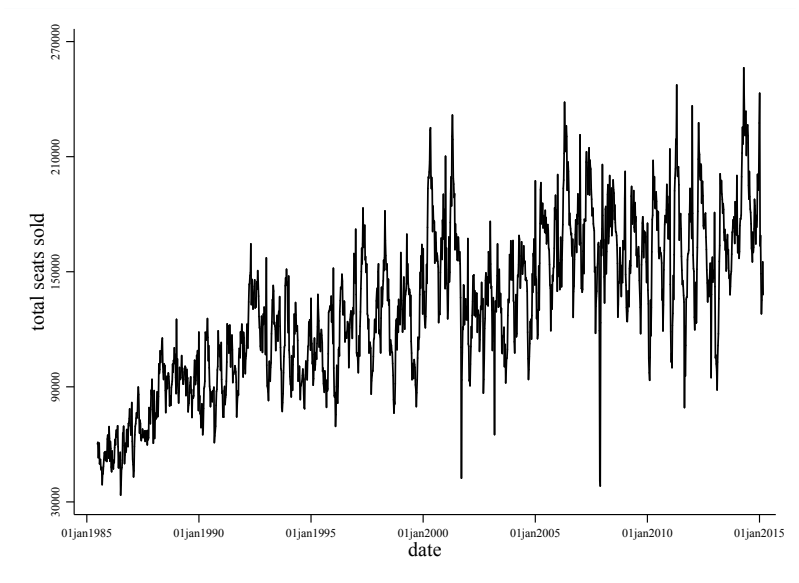
†Queen's University, Department of Economics, 94 University Avenue, Kingston, ON Canada, K7L 3N6.

‡Corresponding author: HEC Montreal, Department of Applied Economics, 3000 ch. Cote-Sainte-Catherine, Montreal, QC Canada, H3T 2A7. E-mail: mario.samano@hec.ca

Figure A.1: Weekly Average Ticket Price and Tickets Sold, 1985-2015



A. average ticket price



B. total tickets sold

Notes: Panel A shows average ticket price and Panel B shows total number of tickets sold each week from 1985 to 2015.

Table B.1: Decomposition of Effect on Incumbents Before and After Entry

	Dependent Variable (y_{ijt}):			(1) \div (3) (4)
	price (1)	tickets (2)	revenue (3)	
$\tau = -5$	-0.0091*** (0.0012)	-0.0069** (0.0024)	-0.0161*** (0.0027)	56.5
$\tau = -4$	-0.0130*** (0.0013)	-0.0128*** (0.0026)	-0.0258*** (0.0030)	50.4
$\tau = -3$	-0.0106*** (0.0014)	-0.0070** (0.0025)	-0.0177*** (0.0031)	59.9
$\tau = -2$	-0.0137*** (0.0015)	-0.0116*** (0.0027)	-0.0253*** (0.0033)	54.2
$\tau = -1$	-0.0171*** (0.0015)	-0.0150*** (0.0028)	-0.0320*** (0.0034)	53.4
$\tau = 0$	-0.0113*** (0.0015)	0.0050* (0.0024)	-0.0063* (0.0031)	69.3
$\tau = 1$	-0.0077*** (0.0016)	-0.0103*** (0.0028)	-0.0179*** (0.0035)	43.0
$\tau = 2$	-0.0080*** (0.0016)	-0.0132*** (0.0028)	-0.0212*** (0.0035)	37.7
$\tau = 3$	-0.0083*** (0.0017)	-0.0168*** (0.0028)	-0.0250*** (0.0035)	33.2
$\tau = 4$	-0.0048** (0.0017)	-0.0162*** (0.0028)	-0.0210*** (0.0035)	22.9
$\tau = 5$	-0.0013 (0.0017)	-0.0105*** (0.0027)	-0.0118*** (0.0035)	11.0
$\tau = 6$	0.0004 (0.0017)	-0.0135*** (0.0028)	-0.0131*** (0.0036)	22.9
$\tau = 7$	0.0048** (0.0017)	-0.0102*** (0.0027)	-0.0054 (0.0036)	32.0
$\tau = 8$	0.0100*** (0.0018)	-0.0064* (0.0028)	0.0036 (0.0037)	61.0
$\tau = 9$	0.0155*** (0.0018)	0.0007 (0.0027)	0.0162*** (0.0037)	95.7
$\tau = 10$	0.0175*** (0.0019)	0.0070* (0.0028)	0.0245*** (0.0037)	71.4
R^2	0.921	0.867	0.918	

Notes: The dependent variable is (log) average price in column 1, (log) seats sold in column 2, and (log) revenue in column 3. Column 4 shows the absolute value of column 1 divided by the sum of the absolute values of columns 1 and 2 (multiplied by 100), which gives the relative movement in the price and quantity coefficients that is due to movements in the price coefficient. In columns 1 through 3, the coefficients reported are on indicators for five weeks before and up to ten weeks after entry occurs, where weeks more than five weeks before are part of the excluded group. All specifications include incumbent fixed effects. Standard errors are clustered at the show and entry date level. The number of observations in each column is 189,679.

the absolute values of columns 1 and 2 (multiplied by 100), which gives the relative movement in the price and quantity coefficients that is due to movements in the price coefficient. From column 4 of Table B.1, this result is consistent across the different weeks before and after entry; in general, price changes are larger than quantity changes in periods before entry and this pattern reverses after entry.

References

D. Temple Lang. R Package XML the R-Project. <http://cran.r-project.org/web/packages/XML>, 2013. last accessed 1 April 2015.