

# HCM 902 Industrial Organization of Health Care Course Syllabus Fall 2012

Meeting Days: Tuesday Meeting Time: 3:00-6:00

Meeting Place: CPC Chestnut Room
Instructor: Professor Robert Town

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**Office Hours:** By appointment. Given your schedules are not conducive to a fixed office hour time, it is best to set up appointments. I am very flexible and should be able to accommodate most schedules.

#### **Course Description**

This advanced PhD seminar will explore topics in the industrial organization of health care and structural econometric approaches in health economics. The focus in this course is two fold. First, we develop a thorough understanding the literature on the industrial organization of health care focusing on the important themes and unanswered questions. Second, we will learn advanced econometric tools with an emphasis on structural methods. The topics covered include health insurance, adverse selection, moral hazard, hospital demand estimation, the analysis of hospital competition, insurer competition, quality competition, new product adoption, models of entry and exit and dynamic single agent models. These are not the only important topics in the IO of health care but time is limited and we cannot cover all interesting topics.

Students are required to present recently research from the field, complete empirical exercises and write an empirical research paper that broadly based on the topics covered in the course. With the permission of the instructor, the seminar is open to doctoral students from departments other than Health Care Systems.

The benefits you gain from this course depend upon the work you put into it. I do not have a lot of assignments. I have no doubt that you could get a fine grade with marginal effort but you not add as much to your human capital as you could. My view is that this is an advanced PhD course that serves two purposes: 1) Add to your understanding the health economics/industrial organizations literature and 2) Help you develop your dissertation topic. At this stage in your careers you should be very self-motivated to learn and my job is to facilitate that learning.

#### **Course Requirements:**

- 1. Read the papers before class! Most of the papers are available on-line. The few that are not, I will have versions that you can copy it.
- 2. Homework(s)
- 3. Presentation of a published paper. (45-60 min)
- 4. End of term <u>original</u> research paper and presentation. The paper is to be a draft of a potentially publishable paper on the topic of your choosing. The paper should have a well-developed literature review, economic theory and methods section. Data analysis section can be excluded but it possible it would be nice to have some initial estimates.

### Grading:

Paper / Presentations (a presentation of the idea	50%
and a final presentation in weeks 13 and 14)	
Presentation of published paper	15%
Homework	25%
Class Participation	10%

# September 11 (Week 1) -- Course Introduction/ Getting a good job

- Dranove, D., and Satterthwiate, M. (2000) "The Industrial Organization of Health Care Markets," Handbook of Health Economics, Vol 1a., Culyer, A. and Newhouse, J. ed., Elsevier.
- Gaynor, M. and Vogt, W. (2000) "Antitrust and Competition in Health Care Markets" <u>Handbook of Health Economics</u>, Vol 1b., Culyer, A. and Newhouse, J. ed., Elsevier.
- Cawley, J. (2011) "A Guide and Advice for Economists on the US Junior Academic Job Market, 2011-2012," http://www.aeaweb.org/joe/articles/2011/job\_market\_guide.pdf

# September 18 – Oct 2 (Weeks 2 -4) -- Demand, Adverse Selection and Moral Hazard

- Nevo, A. (2000) "A Practitioner's Guide to Estimation of Random-Coefficients Logit Models of Demand," <u>Journal of Economics and Management Strategy</u>, 9(4): 513-548.
- Berry, S. (1994) "Estimating Discrete Choice Models of Product Differentiation," <u>RAND Journal</u> of Economics, 25: 242-262.
- Berry, S., Levinsohn, J. and A. Pakes (1995) "Automobile Prices in Equilibrium, Econometrica, 63(4):841-890.
- Cardon, J. and Hendel, I. (2001) "Asymmetric Information in Health Insurance: Evidence from the National Medical Expenditure Survey," <u>RAND Journal of Economics</u>, 32: 408-427.
- Finkelstein, A. and McGarry, K. (2006) "Multiple dimensions of private information: evidence for the long-term care insurance market," <u>American Economic Review</u>, 96(4) 938-958.
- Carlin C. and Town, R. (2010) "Adverse selection, welfare and the optimal pricing of employer-sponsored health plans," Mimeograph.
- Bajari, P., Hong, H., and Khwaja, A. (2009) "Moral hazard, adverse selection and health expenditures: a semiparametric analysis," <a href="http://www.econ.umn.edu/~bajari/research/health.pdf">http://www.econ.umn.edu/~bajari/research/health.pdf</a>.
- Cutler, D. B. Lincoln, and R. Zeckhauser (2009) "Selection Stories: Understanding Movement Across Health Plans," NBER Working Paper 15174.
- Einav, L., Finkelstein, A., Ryan, S. and Schrimpf, P. and Cullen, M. 2010. "Selection on Moral Hazard in Health Insurance." Available at <a href="http://www.stanford.edu/~leinav/papers.htm">http://www.stanford.edu/~leinav/papers.htm</a>.
- De Meza, D, and Webb. D C. 2001. "Advantageous Selection in Insurance Markets." <u>RAND</u> <u>Journal of Economics</u>, 32(2): 249–262.

- Cutler, David M., and Sarah J. Reber. 1998. "Paying for Health Insurance: The Trade-Off between Competition and Adverse Selection." Quarterly Journal of Economics, 113(2): 433–66.
- Einav, L, Finkelstein, A. and Cullen, M. 2010. "Estimating Welfare in Insurance Markets using Variation in Prices." Quarterly Journal of Economics, 125(3): 877–921.
- Bundorf, K., Levin, J. and Mahoney, N. 2010. "Pricing and Welfare in Health Plan Choice." Available at http://www.stanford.edu/~jdlevin/research.htm.
- Handel, B. (2011) Adverse Selection and Switching Costs in Health Insurance Markets: When Nudging Hurts," NBER Working Paper.
- Starc, A. (2012) "Insurer pricing and consumer welfare: Evidence from Medigap." Mimeo.
- Lustig, J. (2011). Measuring welfare losses from adverse selection and imperfect competition in privatized Medicare. unpublished manuscript, Boston University.
- Ho, K. and Pakes, A. (2012) "Hospital Choices, Hospital Prices and Financial Incentives to Physicians," http://www.columbia.edu/~kh2214/papers/HoPakes 111711 2.pdf.
- Rossi, P., Allenby, G. and R. McCulloch, (2006) <u>Bayesian Statistics and Marketing</u>, J. Wiley and Sons.
- Finkelstein, A., Einav, L., Levin, J. (2010) "Beyond Testing: Empirical Models of Insurance Markets," Annual Review of Economics, 2(1): 311-336.

# October 9 – 16 (Weeks 5-6) Static Oligopoly / Hospital price competition / Mergers / Provider Networks

- Tirole, J, (1988) Theory of Industrial Organization, MIT Press
- Gaynor, M. and Town, R. (2012) "Provider Competition," in <u>Handbook of Health Economics</u>, Vol. 2.
- Kessler, Daniel and Mark McClellan (2000) "Is Hospital Competition Socially Wasteful? Quarterly Journal of Economics, 115:2 pp. 577-615.
- Town, R., and Vistnes, G. "Hospital Competition in HMO Networks," <u>Journal of Health</u> <u>Economics</u>, 20:5 (September 2001), pp. 733-753.
- Gaynor, M. and Vogt, W. (2003) "Competition Among Hospitals," <u>RAND Journal of Economics</u>, 25:764-785.
- Capps, C., Dranove, D., and M. Satterthwaite (2003) "Competition and Market Power in Option Demand Markets," RAND Journal of Economics, 25: 737-763.

- Ho, K. (2009) "Insurer-Provider Networks in the Medical Care Market," <u>American Economic Review</u>, 99(1): 393-430
- Gowrisankaran, G., and Town, R. (2003) "Competition, Payers, and Hospital Quality," <u>Health Services Research</u>, December.
- Brand, K., Gowrisankaran, G., Nevo, A. and Town, R. (2012) "Mergers When Prices Are Negotiated: Evidence from the Hospital Industry" <a href="http://www.u.arizona.edu/~gowrisan/pdf">http://www.u.arizona.edu/~gowrisan/pdf</a> papers/hospital merger negotiated prices.pdf.
- Pakes, A. (2010) "Alternative Models of Moment Inequalities," Econometrica, 78(6): 1783–1822.
- Lee, R. and Fong, K. (2012) "Markov-Perfect Network Formation: An Applied Framework for Bilateral Oligopoly and Bargaining in Buyer-Seller Networks," http://pages.stern.nyu.edu/~rslee/papers/MPNENetworkFormation.pdf.
- Horn, H. and Wolinsky, A. (1988). Bilateral monopolies and incentives for merger. <u>RAND</u> <u>Journal of Economics</u>, 19:408-419.
- Nevo, A. (2000) "Mergers with Differentiated Products: The Case of the Ready-to-Eat Cereal Industry," RAND Journal of Economics, 31(3): 395-421.

#### October 23 -- Fall Break

# October 30 (Week 7)-- Insurer competition/Vertical Issues

- \*Ho, K. (2005) "The Welfare Effects of Restricted Hospital Choice in the US Medical Care Market," <u>Journal of Applied Econometrics</u>, 21(7): 1039-1079.
- Ciliberto, F., Dranove, D., 2005. "The effect of physician-hospital affiliations on hospital prices in California," Journal of Health Economics. 25(1): 29-38.
- Dafny, L. (2010) "Are Health Insurance Markets Competitive?" American Economic Review, 100(4): 1399-1431.
- Dafny, L., Duggan, M., and Ramanarayanan, S. (2009) Paying a Premium on your Premium? Consolidation in the US Health Insurance Industry. NBER working paper.
- Cuellar, A.E., Gertler, P.J., 2005. "Strategic integration of hospitals and physicians," <u>Journal of Health Economics</u>, 25(1):1-28.
- Town, R. (2001) "The Welfare Impacts of HMO Mergers," <u>Journal of Health Economics</u>, 20(6) 967-990.

- Cebul, R. Rebitzer, J. Taylor, L. and Votruba, M. (2011) "Unhealthy Insurance Markets: Search Frictions and the Cost and Quality of Health Insurance" <u>American Economic Review</u>, 101(5): 1842-1871.
- Lucarelli, C., Prince, J. and Simon, K. (2012), "The Welfare Impact of Reducing Choice in Medicare Part D: A Comparison of Two Regulation Strategies," <u>International Economic Review</u>, forthcoming.
- Dunn, Abe (2011) "The Effect of Health Insurance Competition when Private Insurance Competes with a Public Option," Mimeo. <a href="http://www.bea.gov/papers/pdf/HealthInsuranceCompetition10">http://www.bea.gov/papers/pdf/HealthInsuranceCompetition10</a> 11.pdf.
- Miller, D. and Yeo, J. (2012) "The Consequences of a Public Health Insurance Option: Evidence from Medicare Part D Prescription Drug Markets," Mimeo. http://people.clemson.edu/~dmille7/Publicoptionmay2012.pdf
- DeCarellous, F. (2012) "Pricing and Incentives in Publicly Subsidized Health Care Markets: The Case of Medicare Part D," mimeograph.

# November 6-13 (Week 8-9) -- Productivity/quality measurement

- Kessler, Daniel and Mark McClellan (2000) "Is Hospital Competition Socially Wasteful? Quarterly Journal of Economics, 115:2 pp. 577-615.
- Gowrisankaran, G., and Town, R. (2003) "Competition, Payers, and Hospital Quality," <u>Health Services Research</u>, December, 38(6): 1403-1422.
- Geweke, J., Gowrisankaran, G., and Town, R. (2003) "Bayesian Inference for Hospital Quality in a Selection Model," Econometrica, 71(4) 1215-1238.
- Chandra, A. and D. Staiger (2007) "Productivity Spillovers in Health Care: Evidence from the Treatment of Heart Attacks," <u>Journal of Political Economy</u>, 115(1): 103-140.
- Chandra A. and J. Skinner (2009) "Productivity and Expenditure Growth in Health Care," Journal of Economic Literature,
- Cutler, D., McClellan, M., Newhouse, J. and Remler, D. (1998) "Are Medical Prices Declining? Evidence from Heart Attack Treatments," <u>Quarterly Journal of Economics</u>, 113: 991-1024.
- Swanson, A. (2012) "Physician Ownership and Incentives: Evidence from Cardiac Care," Mimeo. http://economics.mit.edu/files/7323
- Murphy, K. and Topel, R. (2003) "The Economic Value of Medical Research," in Murphy and Topel, eds. Measuring the Gains from Medical Research: An Economic Approach, Chicago, IL: University of Chicago Press. <a href="http://gsbwww.uchicago.edu/fac/kevin.murphy/research/murphy&topel.pdf">http://gsbwww.uchicago.edu/fac/kevin.murphy/research/murphy&topel.pdf</a>.

- McClellan, M., B. McNeil, J. Newhouse (1994) "Does more intensive treatment of acute myocardial infarction in the elderly reduce mortality? Analysis using instrumental variables." JAMA, 272(11):891-3.
- Miller, A. R. and Tucker, Catherine, "Can Healthcare IT Save Babies?" <u>Journal of Political Economy</u>, 119(2): 289-324.
- Cutler, David M. (1995). "The Incidence of Adverse Medical Outcomes Under Prospective Payment," Econometrica, 63(1): 29-50.
- Ackerberg, D., Caves, K., and Frazer, G. (2006) "Structural Identification of Production Functions," Mimeo. http://www.econ.ucla.edu/ackerber/ACF20withtables.pdf.
- Grieco, P. and McDevitt (2012) "Productivity and Quality in Health Care: Evidence from the Dialysis Industry," http://www.econ.psu.edu/~plg15/gm\_dialysis\_Aug2012.pdf.

# November 20 – No Class – Thanksgiving (Week 10)

• Individual Meetings on Papers

# **November 27 (Week 11) -- Welfare of New Products**

- Chernew, M., Gowrisankaran, G. and Fendrick, M.A. (2002) "Payer type and the returns to bypass surgery: evidence from hospital entry behavior" <u>Journal of Health Economics</u>, Volume 21: 451-474.
- Chaudhuri, S. Goldberg, P. and Jia, P. (2006) "Estimating the effects of global patent protections in pharmaceuticals: A case study of Quinolones in India," <u>American Economic Review</u>, 96(5): 1477-1513.
- Town, Robert and Liu, S. (2003) "The Welfare of Medicare HMOs," <u>RAND Journal of Economics</u>, 34(4):719-736
- Trajtenberg, M., (1989) "The welfare analysis of product innovations, with an application to computer tomography scanners," <u>Journal of Political Economy</u> 97, 444–479.
- Miller, D. and Yeo, J. (2012) "The Consequences of a Public Health Insurance Option: Evidence from Medicare Part D Prescription Drug Markets," Mimeo. http://people.clemson.edu/~dmille7/PartDmilleryeoNov2011.pdf.
- Dafny, L., K. Ho and M. Varela (2012) "Let Them Have Choice: Gains from Shifting Away from Employer-Sponsored to an Individual Exchange," <u>American Economic Journal:</u> Economic Policy, forthcoming.

- Bresnahan, T. (1998?) "The Apple-Cinnamon Cheerios War: Valuing New Goods, Identifying Market Power, and Economic Measurement," Mimeograph.
- Ackerberg, D. and Rysman, M. (2005) "Unobserved Product Differentiation in discrete-choice Models: Estimating Price Elasticities and Welfare Effects, <u>RAND Journal of Economics</u>, 36(4).
- Goolsbee, A. and A. Petrin (2004). "The Consumer Gains from Direct Broadcast Satellites and the Competition with Cable TV," <u>Econometrica</u> 72 (2), 351.

# December 4 (Week 12) -Last Day of Class -- Student Presentations